

Incident ID	nAPP2213957876
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?	350 (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 <b>not</b> 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.

State of New Mexico  
Oil Conservation Division

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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: 10/6/2022  
 email: cwalker@mewbourne.com Telephone: (806)202-5281

**OCD Only**

Received by: Jocelyn Harimon Date: 10/06/2022

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## 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: 10/6/2022 \_\_\_\_\_  
 email: cwalker@mewbourne.com \_\_\_\_\_ Telephone: (806)202-5281 \_\_\_\_\_

**OCD Only**

Received by: Jocelyn Harimon \_\_\_\_\_ Date: 10/06/2022 \_\_\_\_\_

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: 10/25/2022 \_\_\_\_\_  
 Printed Name: Jennifer Nobui \_\_\_\_\_ Title: Environmental Specialist A \_\_\_\_\_

# Remediation Summary & Soil Closure Request

## Mewbourne Oil Company NGL Paduca SWD Tie In

Lea County, New Mexico  
Unit Letter "L", Section 6, Township 26 South, Range 32 East  
Latitude 32.0721440 North, Longitude 103.718881 West  
**NMOCD Reference No. nAPP2213957876**

Prepared By:

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



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Ben J. Arguijo



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Lance Crenshaw



Midland • San Antonio • Lubbock • Hobbs • Lafayette

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### 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 NGL Paduca SWD Tie In (henceforth, "Paduca"). Details of the release are summarized below:

#### Location of Release Source

Latitude: 32.0721440 Longitude: -103.718881  
 Provided GPS are in WGS84 format.

Site Name: <u>NGL Paduca SWD Tie In</u>	Site Type: <u>Pipeline</u>
Date Release Discovered: <u>5/6/2022</u>	API # (if applicable): <u>N/A</u>

Unit Letter	Section	Township	Range	County
"L"	6	26S	32E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name Jesse T. Baker)

#### 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) <u>546</u>	Volume Recovered (bbls) <u>160</u>
	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 poly pipeline failed and developed a split.

#### Initial Response

- The source of the release has been stopped.
- The impacted area has been secured to protect human health and the environment.
- Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
- 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 Paduca release site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	350'		
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, inferred depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standards for the Paduca release site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria**†	Reclamation Standard**‡
350'	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 May 31, 2022, remediation activities commenced at the release site. Due to the size and nature of the release, the affected area was divided into two (2) sections: the Main Excavation, which includes portions of the pasture and access road to the east and south of the Paduca Salt Water Disposal (SWD) facility; and the Pad Excavation, which includes portions of the SWD production pad. 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. Olfactory/visual senses and/or a chloride test kit were utilized to field-screen the horizontal extent of impacted soil and to guide the excavation. The sidewalls and floors of the excavations 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 floors of the excavations to be submitted for laboratory analysis.

On June 3, 2022, Etech collected 16 confirmation soil samples (NWS 1, EWS 1, EWS 2, EWS 3, and FS 1 @ 1' through FS 12 @ 1') from the sidewalls and floor of the Main Excavation. The soil samples were submitted to 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 32.0 mg/kg in soil samples EWS 3 and FS 3 @ 0-6" to 496 mg/kg in soil sample FS 12 @ 1'.

On June 8, 2022, Etech advanced a series of test trenches (TT 1 through TT 4) within the release margins in an effort to determine the vertical extent of impacted soil. The trenches were advanced to the extent practicable. During the advancement of the trenches, soil samples were collected and field-screened for concentrations of chloride utilizing a Hach Quantab® chloride test kit and/or the presence of Volatile Organic Compounds (VOCs) utilizing olfactory/visual senses.

Based on laboratory analytical results and field test data, a total of 12 delineation soil samples (TT 1 @ 0', TT 1 @ 4', TT 1 @ 7', TT 2 @ 0', TT 2 @ 4', TT 2 @ 8' - R, TT 3 @ 0', TT 3 @ 5', TT 3 @ 11', TT 3 @ 18', TT 4 @ 0', and TT 4 @ 2') were submitted to the laboratory for analysis of BTEX, TPH, and chloride. In addition, five (5) delineation soil samples (PS 1 @ 0' through PS 5 @ 0') were collected from the affected area on the SWD production pad and submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated the vertical extent of impacted soil was adequately defined in the areas characterized by test trenches TT 1, TT 3, and TT 4. However, additional delineation and/or excavation was required in the areas characterized by test trench TT 2 and soil samples PS 1 @ 0' through PS 5 @ 0'.

On June 8, 2022, Etech also collected five (5) confirmation soil samples (WWS 1 and FS 13 @ 2' through FS 16 @ 2') from the sidewalls and floor of the Main Excavation. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria, NMOCD Reclamation Standards, and laboratory MDL in each of the submitted soil samples. Chloride concentrations ranged from 928 mg/kg in soil sample WWS 1 to 6,080 mg/kg in soil sample FS 13 @ 2'. Chloride concentrations in soil samples FS 13 @ 2' through FS 16 @ 2' exceeded the NMOCD Reclamation Standard.

On June 10, 2022, Etech collected 20 confirmation soil samples (EWS 4, EWS 5, SW1 1, WWS 1, and FS 18 @ 4' through FS 33 @ 4') from the sidewalls and floor of the Main Excavation. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria, NMOCD Reclamation Standards, and laboratory MDL in each of the submitted soil samples, with the exceptions of samples FS 28 @ 4' (30.5 mg/kg TPH), FS 30 @ 4' (11.7 mg/kg TPH), FS 31 @ 4' (13.6 mg/kg TPH), and FS 33 @ 4' (12.0 mg/kg TPH). Chloride concentrations ranged from 208 mg/kg in soil sample SWS 1 to 6,800 mg/kg in soil sample FS 28 @ 4'. The chloride concentration in soil sample EWS 5 exceeded the NMOCD Reclamation Standard.

On June 14, 2022, Etech collected nine (9) confirmation soil samples (FS 34 @ 4' through FS 42 @ 4') from the floor of the Main Excavation. 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 800 mg/kg in soil sample FS 38 @ 4' to 4,000 mg/kg in soil sample FS 34 @ 4'.

On June 15, 2022, Etech collected 10 confirmation soil samples (FS 43 @ 4' through FS 52 @ 4') from the floor of the Main Excavation. 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 1,440 mg/kg in soil sample FS 43 @ 4' to 4,160 mg/kg in soil sample FS 48 @ 4'.

On June 17, 2022, based on laboratory analytical results, the Main Excavation was further advanced in the areas characterized by soil samples FS 10 @ 10" through FS 16 @ 2'. Etech collected 10 confirmation soil samples (FS 10 @ 2' through FS 17 @ 2', FS 53 @ 4', and FS 54 @ 4') from the floor of the Main Excavation. 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 208 mg/kg in soil sample FS 15 @ 4' to 3,600 mg/kg in soil sample FS 54 @ 4'.

On June 20, 2022, based on laboratory analytical results, the Main Excavation was further advanced in the area characterized by soil sample EWS 5. Etech collected eight (8) confirmation soil samples (EWS 5, EWS 6, WWS 2, WWS 3, WWS 4, 56 @ 5", 57 @ 5", and 58 @ 5") from the sidewalls and floor of the Main Excavation. 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 80.0 mg/kg in soil samples EWS 5 and EWS 6 to 2,760 mg/kg in soil sample WWS 2.

On June 21, 2022, Etech collected 10 confirmation soil samples (ESW 7, ESW 8, and FS 59 @ 4' through FS 66 @ 4') from the sidewalls and floor of the Main Excavation. 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 128 mg/kg in soil sample FS 64 @ 4' to 640 mg/kg in soil sample FS 66 @ 4'.

On June 23, 2022, Etech collected 11 confirmation soil samples (NWS 2, EWS 9, EWS 10, WWS 5 through WWS 8, and FS 67 @ 4' through FS 70 @ 4') from the sidewalls and floor of the Main Excavation and five (5) confirmation soil samples (PS 1, PS 2, PS 3, PS 4, and PS 5) from the floor of the Pad Excavation. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria, NMOCD Reclamation Standards, and laboratory MDL in each of the submitted soil samples, with the exceptions of samples PS 1 (61.1 mg/kg TPH), PS 3 (95.5 mg/kg TPH), and PS 4 (14.0 mg/kg TPH). Chloride concentrations ranged from 32.0 mg/kg in soil sample WWS 6 to 22,000 mg/kg in soil sample PS 3, which exceeded the NMOCD Closure Criterion.

On June 24, 2022, Etech further advanced test trench TT 2 in an effort to determine the vertical extent of impacted soil in the affected area. The trench was advanced in one (1) to two (2) foot increments to a total depth of approximately 12 feet below ground surface. During the advancement of the test trench, soil samples were collected and field-screened for concentrations of chloride utilizing a chloride test kit and/or the presence of VOCs utilizing olfactory/visual senses.

Based on field observations and field test data, one (1) delineation soil sample (TT 2 @ 12') was submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated the chloride concentration was 256 mg/kg, and the vertical extent of impacted soil was adequately defined.

On June 24, 2022, Etech also collected one (1) confirmation soil sample (FS 55 @ 5") from the floor of the Main Excavation. The soil sample was 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 NMOCD Reclamation Standards. BTEX and TPH concentrations were also below the applicable laboratory MDL. The chloride concentration was 432 mg/kg.

On June 27, 2022, Etech collected six (6) confirmation soil samples (PS 6, PS 7, NWS 3, WWS 9, WWS 10, and WWS 11) from the sidewalls and floor of the Pad Excavation. 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 concentrations were also below the laboratory MDL. TPH concentrations ranged from less than the laboratory MDL in soil samples NWS 3 and WWS 9 to 172 mg/kg in soil sample WWS 11. Chloride concentrations ranged from 48.0 mg/kg in soil sample WWS 9 to 18,400 mg/kg in soil sample PS 6.

On June 28, 2022, based on laboratory analytical results, the Pad Excavation was further advanced in the area characterized by soil sample PS 3. Etech collected one (1) confirmation soil sample (PS 3 @ 1') from the floor of the newly excavated area. The soil sample was submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated the chloride concentration was 3,760 mg/kg, which was below the NMOCD Closure Criterion.

On June 30, 2022, based on laboratory analytical results, the Pad Excavation was further advanced in the area characterized by soil sample WWS 11. Etech collected one (1) confirmation soil sample (WWS B #11) from the sidewall of the newly excavated area. The soil sample was submitted to the laboratory for analysis of TPH. Laboratory analytical results indicated the TPH concentration was 3,760 mg/kg, which was below the NMOCD Closure Criterion, the NMOCD Reclamation Standard, and the laboratory MDL.

The final dimensions of the Main Excavation were approximately 612 feet in length, 26 to 154 feet in width, and five (5) inches to four (4) feet in depth. The final dimensions of the Pad Excavation were approximately 160 feet in length, 28 to 134 feet in width, and six (6) inches to one (1) foot in depth. During the course of remediation activities, Etech transported approximately 3,220 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 2,700 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

The extent of the affected area and the locations of the test trenches are depicted in Figure 3A, "Site & Sample Location Map (Delineation)". The extents of the Main and Pad Excavations and the locations of the confirmation soil samples are depicted in Figure 3B, "Site & Sample Location Map (Excavation)". Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. General photographs of the site are provided in Appendix C. Laboratory analytical reports 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 Paduca 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***

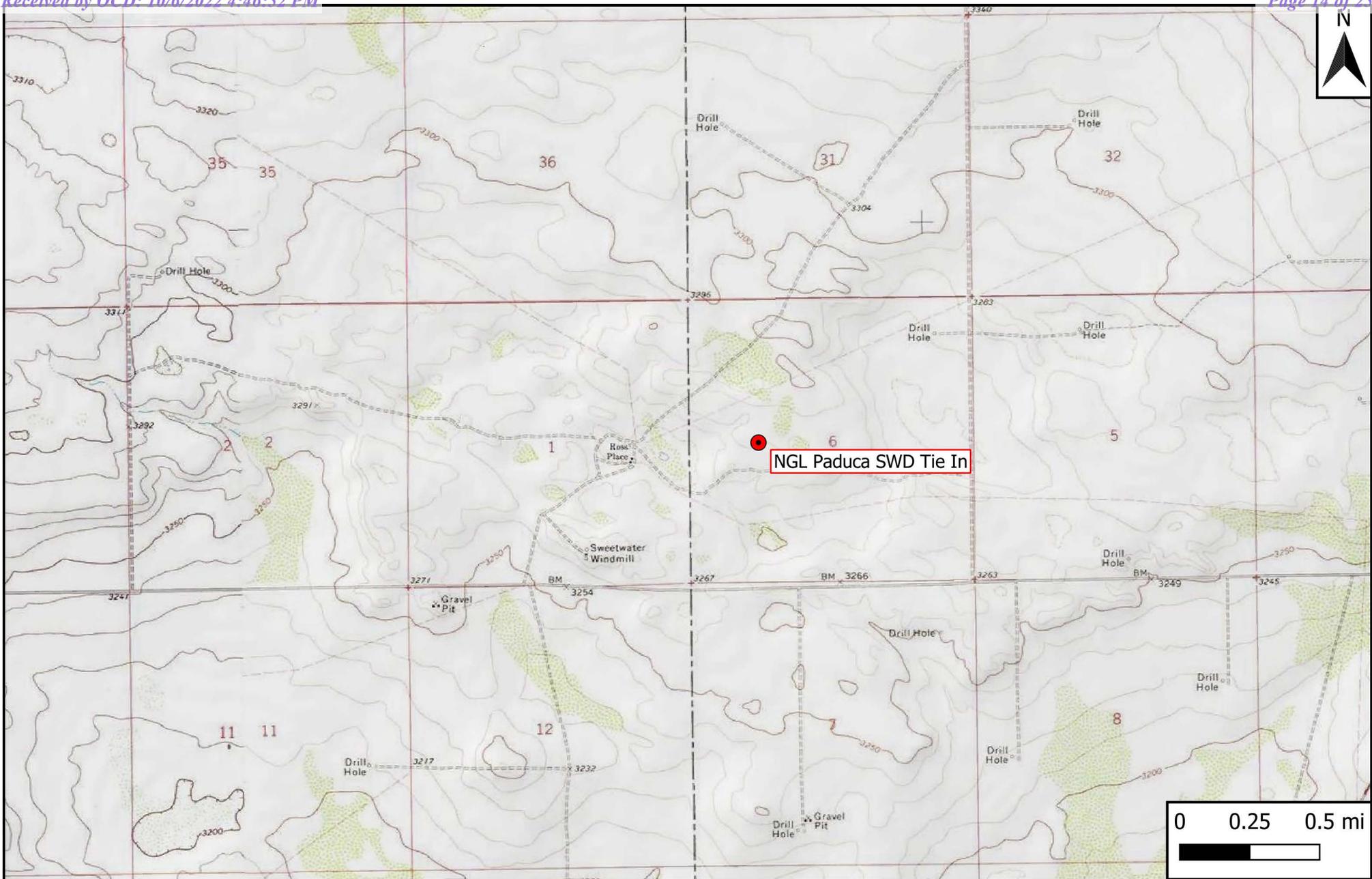
*Oil Conservation Division, District 1*

*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  
 NGL Paduca SWD Tie In  
 GPS: 32.072144, -103.718881  
 Lea County

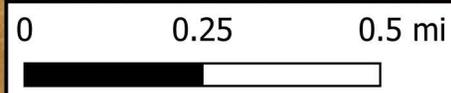
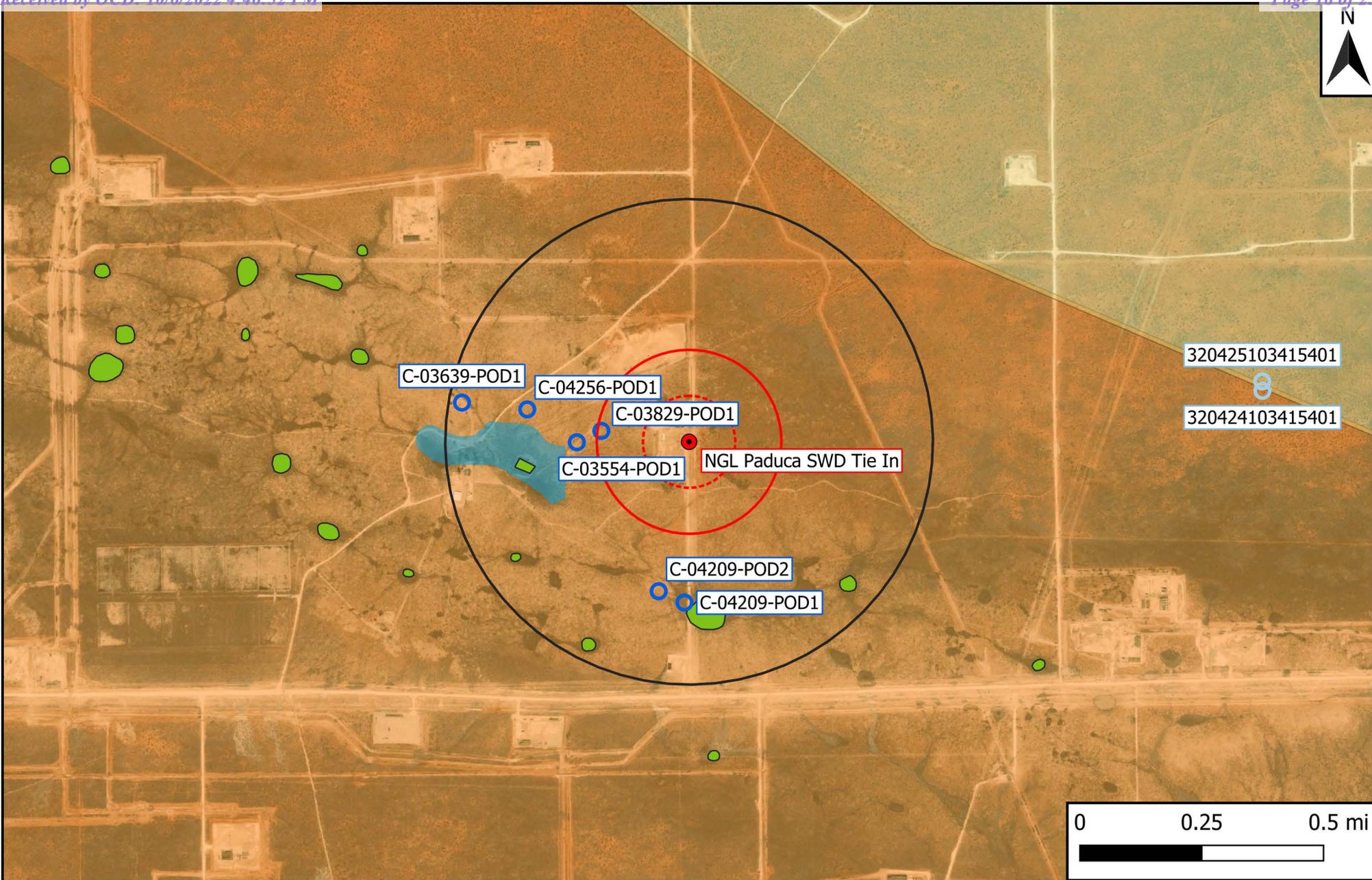


Drafted: bja

Checked: jwl

Date: 8/25/22

## Figure 2 Site Characterization Map



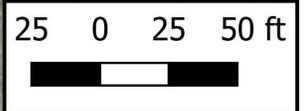
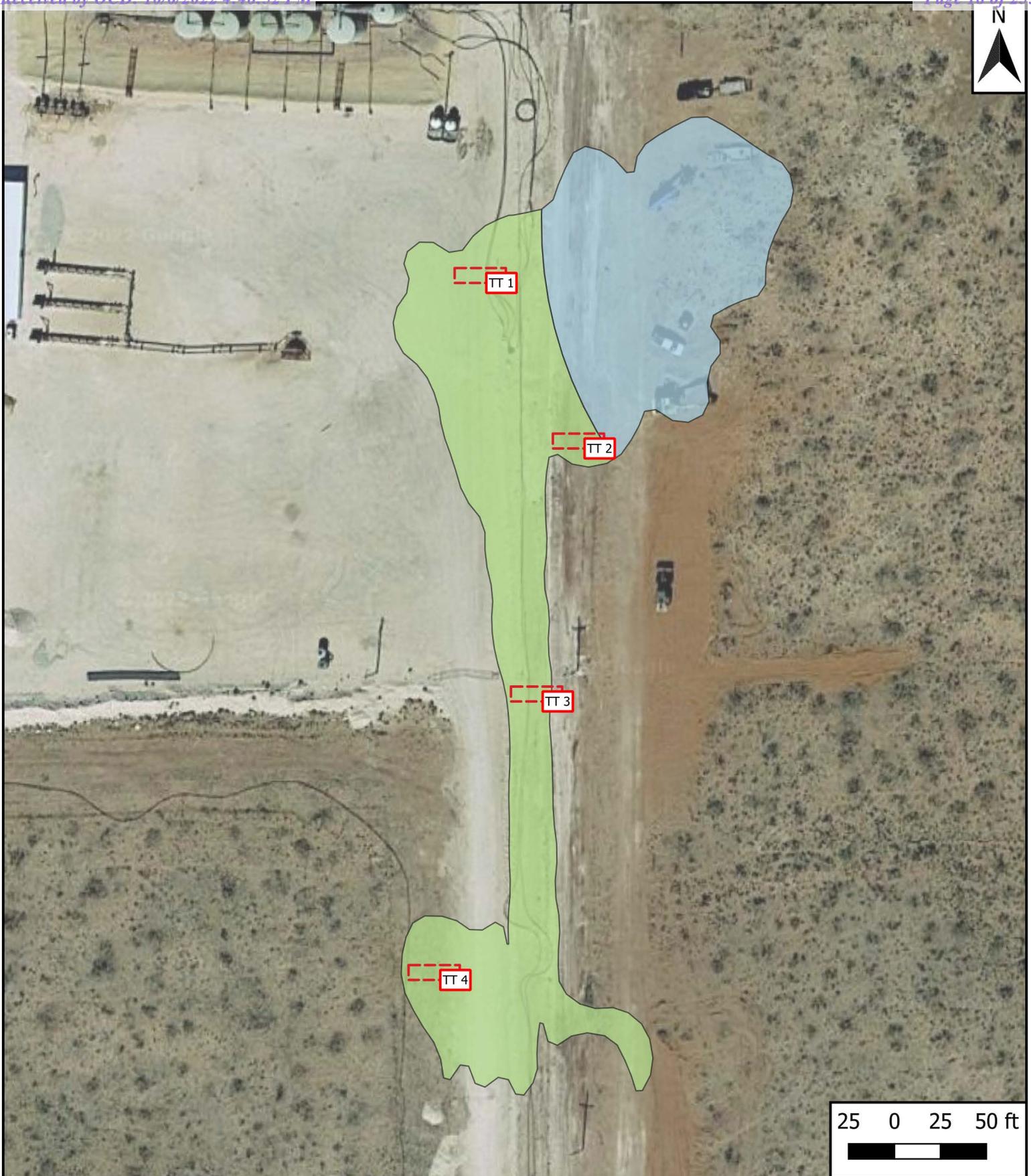
Legend		
Site Location	100-Year Floodplain	500-Ft Radius
Well - NMOSE	Emergent/Forested Wetlands	1,000-Ft Radius
Well - USGS	Freshwater Pond/Lake	0.5-Mi Radius
Well - Exploratory/Monitor	Karst Potential (Low/Med./High)	Municipal Boundary
Potash Mine Workings	Riverine	

**Figure 2**  
 Site Characterization Map  
 Mewbourne Oil Company  
 NGL Paduca SWD Tie In  
 GPS: 32.072144, -103.718881  
 Lea County



## **Figures 3A & 3B**

### **Site & Sample Location Maps**



Legend

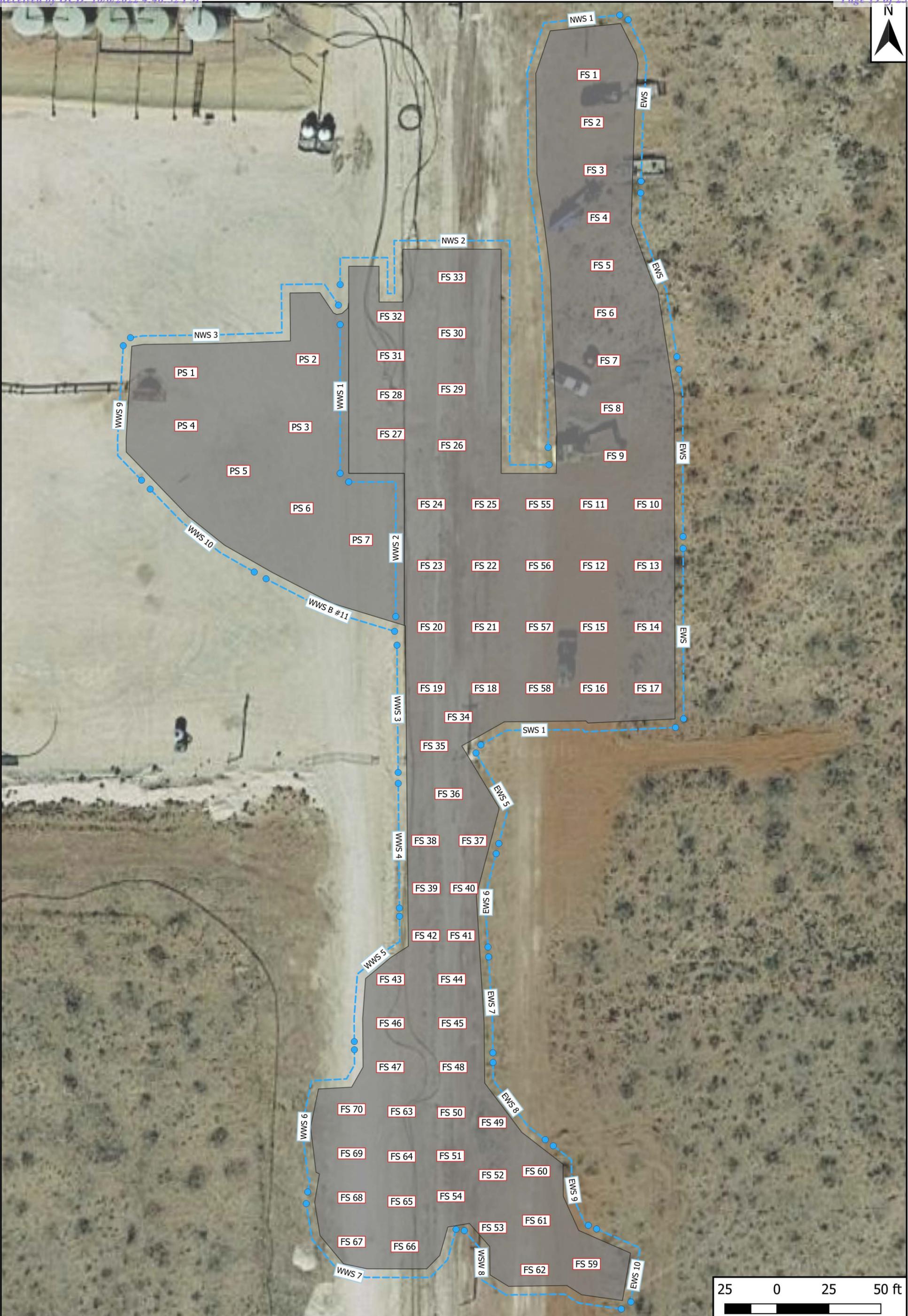
- Affected Area (25,755 ft<sup>2</sup>)
- Overspray Area (15,865 ft<sup>2</sup>)
- Test Trench

Figure 3A

Site & Sample Location Map (Delineation)  
 Mewbourne Oil Company  
 NGL Paduca SWD Tie In  
 GPS: 32.072144, -103.718881  
 Lea County



Drafted: bja      Checked: lc      Date: 9/29/22



<b>Legend</b>
Excavation Extent
Composite Floor Sample
Composite Wall Sample

**Figure 3B**  
 Site & Sample Location Map (Excavation)  
 Mewbourne Oil Company  
 NGL Paduca SWD Tie In  
 GPS: 32.072144, -103.718881  
 Lea County

Drafted: bja	Checked: lc	Date: 9/29/22

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

<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>Mewbourne Oil Company</b> <b>NGL Paduca SWD Tie In</b> <b>NMOCD Ref. #: nAPP2213957876</b>											
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 <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
<b>Delineation Samples</b>											
TT 1 @ 0'	6/8/2022	0	Excavated	<0.200	<1.20	<10.0	32.2	32.2	21.8	54.0	<b>39,600</b>
TT 1 @ 4'	6/8/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	720
TT 1 @ 7'	6/8/2022	7	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
TT 2 @ 0'	6/8/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>8,000</b>
TT 2 @ 4'	6/8/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	848
TT 2 @ 8' - R	6/8/2022	8	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,800
TT-2 @ 12'	6/24/2022	12	-	-	-	-	-	-	-	-	256
TT 3 @ 0'	6/8/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>1,460</b>
TT 3 @ 5'	6/8/2022	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	6,000
TT 3 @ 11'	6/8/2022	11	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,040
TT 3 @ 18'	6/8/2022	18	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
TT 4 @ 0'	6/8/2022	0	Excavated	<0.050	<0.300	<10.0	140	140	34.6	<b>175</b>	<b>5,440</b>
TT 4 @ 2'	6/8/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
<b>Main Excavation Samples</b>											
NWS 1	6/3/2022	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
NWS 2	6/23/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
EWS 1	6/3/2022	0-1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
EWS 2	6/3/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
EWS 3	6/3/2022	0-0.83	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
EWS 4	6/10/2022	0.5-1.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	432
EWS 5	6/10/2022	0.42-1.5	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>1,040</b>
EWS 5	6/20/2022	0.42-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
EWS 6	6/20/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
ESW 7	6/21/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
ESW 8	6/21/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
EWS 9	6/23/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
EWS 10	6/23/2022	0-0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
SWS 1	6/10/2022	0-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
WWS 1	6/10/2022	0.5-3.5	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	6,000
WWS 1	6/8/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	928
WWS 2	6/20/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,760
WWS 3	6/20/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
WWS 4	6/20/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
WWS 5	6/23/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
WWS 6	6/23/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
WWS 7	6/23/2022	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
WWS 8	6/23/2022	0-0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	320
FS 1 @ 1'	6/3/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FS 2 @ 1'	6/3/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FS 3 @ 0-6"	6/3/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
FS 4 @ 0-6"	6/3/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160

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 NGL Paduca SWD Tie In NMOCD Ref. #: nAPP2213957876											
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 <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
FS 5 @ 0-6"	6/3/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FS 6 @ 0-6"	6/3/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FS 7 @ 0-6"	6/3/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
FS 8 @ 0-6"	6/3/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FS 9 @ 0-6"	6/3/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FS 10 @ 10"	6/3/2022	0.83	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
FS 10 @ 2'	6/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	496
FS 11 @ 1'	6/3/2022	1	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	480
FS 11 @ 2'	6/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	320
FS 12 @ 1'	6/3/2022	1	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	496
FS 12 @ 2'	6/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	592
FS 13 @ 2'	6/8/2022	2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	6,080
FS 13 @ 4'	6/17/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
FS 14 @ 2'	6/8/2022	2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,080
FS 14 @ 4'	6/17/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	592
FS 15 @ 2'	6/8/2022	2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,000
FS 15 @ 4'	6/17/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
FS 16 @ 2'	6/8/2022	2	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,720
FS 16 @ 4'	6/17/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	560
FS 17 @ 2'	6/17/2022	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	384
FS 18 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,960
FS 19 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	5,120
FS 20 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,040
FS 21 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,240
FS 22 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,440
FS 23 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,680
FS 24 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,640
FS 25 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,080
FS 26 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,200
FS 27 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,680
FS 28 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	30.5	30.5	<10.0	30.5	6,800
FS 29 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,480
FS 30 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	11.7	11.7	<10.0	11.7	1,600
FS 31 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	13.6	13.6	<10.0	13.6	3,400
FS 32 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,150
FS 33 @ 4'	6/10/2022	4	In-Situ	<0.050	<0.300	<10.0	12.0	12.0	<10.0	12.0	2,960
FS 34 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,000
FS 35 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,760
FS 36 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,080
FS 37 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,800
FS 38 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	800
FS 39 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,120

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 NGL Paduca SWD Tie In NMOCD Ref. #: nAPP2213957876											
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 <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
FS 40 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,000
FS 41 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,320
FS 42 @ 4'	6/14/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,200
FS 43 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,440
FS 44 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,040
FS 45 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,320
FS 46 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,880
FS 47 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,000
FS 48 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,160
FS 49 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,000
FS 50 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,640
FS 51 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,480
FS 52 @ 4'	6/15/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,520
FS 53 @ 4'	6/17/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,160
FS 54 @ 4'	6/17/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,600
55 @ 5"	6/24/2022	0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	432
56 @ 5"	6/20/2022	0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	416
57 @ 5"	6/20/2022	0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	448
58 @ 5"	6/20/2022	0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	528
FS 59 @ 4'	6/21/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FS 60 @ 5"	6/21/2022	0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288
FS 61 @ 5"	6/21/2022	0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
FS 62 @ 5"	6/21/2022	0.42	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
FS 63 @ 4'	6/21/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	176
FS 64 @ 4'	6/21/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
FS 65 @ 4'	6/21/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
FS 66 @ 4'	6/21/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	640
FS 67 @ 4'	6/23/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	400
FS 68 @ 4'	6/23/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	400
FS 69 @ 4'	6/23/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	400
FS 70 @ 4'	6/23/2022	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	368
Pad Excavation Samples											
PS 1 @ 0'	6/8/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<b>33,600</b>
PS 1	6/23/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	46.4	46.4	14.7	61.1	9,200
PS 2 @ 0'	6/8/2022	0	Excavated	<0.050	<0.300	<10.0	148	148	186	334	<b>25,600</b>
PS 2	6/23/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,080
PS 3 @ 0'	6/8/2022	0	Excavated	<0.050	<0.300	<10.0	24.9	24.9	36.1	61.0	6,260
PS 3	6/23/2022	0-0.5	Excavated	<0.050	<0.300	<10.0	74.3	74.3	21.2	95.5	<b>22,000</b>
PS 3 @ 1'	6/28/2022	1	In-Situ	-	-	-	-	-	-	-	3,760
PS 4 @ 0'	6/8/2022	0	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16,800
PS 4	6/23/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	14.0	14.0	<10.0	14.0	13,200
PS 5 @ 0'	6/8/2022	0	Excavated	<0.050	<0.300	<10.0	91.8	91.8	89.3	181	<b>33,600</b>

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

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

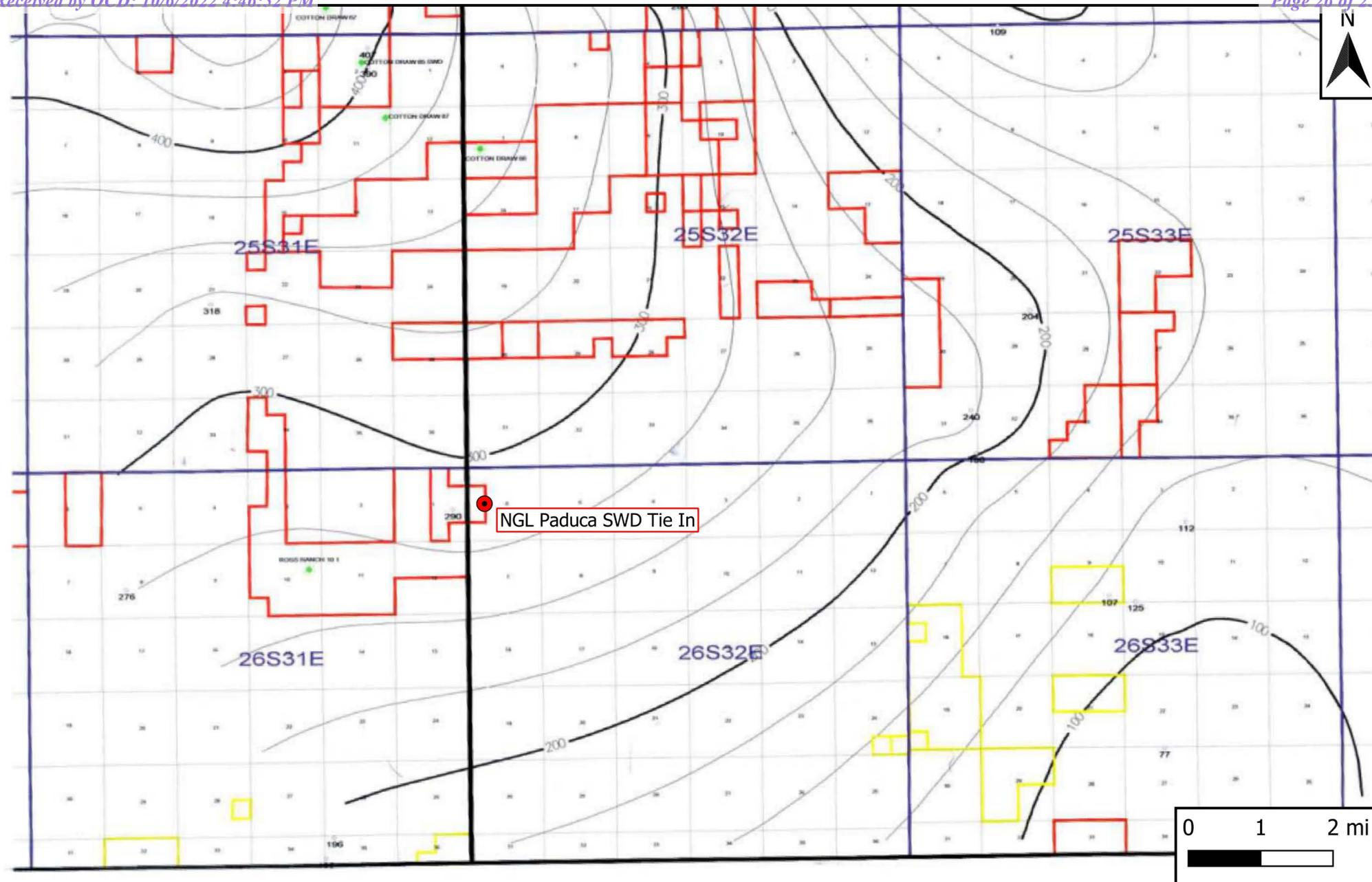
<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>Mewbourne Oil Company</b> <b>NGL Paduca SWD Tie In</b> <b>NMOCD Ref. #: nAPP2213957876</b>											
NMOCD Closure Criteria				10	50	N/A	N/A	1,000	N/A	2,500	20,000
NMOCD Reclamation Standard				10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
PS 5	6/23/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	11,000
PS 6	6/27/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	74.2	74.2	25.4	99.6	18,400
PS 7	6/27/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	63.8	63.8	28.7	92.5	11,600
NWS 3	6/27/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
WWS 9	6/27/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
WWS 10	6/27/2022	0-0.5	In-Situ	<0.050	<0.300	<10.0	61.8	61.8	35.6	97.4	80.0
WWS 11	6/27/2022	0-0.5	Excavated	<0.050	<0.300	<10.0	118	118	53.9	172	80.0
WWS B #11	6/30/2022	0-0.5	In-Situ	-	-	<10.0	<10.0	<20.0	<10.0	<30.0	-

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  
 NGL Paduca SWD Tie In  
 GPS: 32.072144, -103.718881  
 Lea County



Drafted: bja      Checked: jwl      Date: 8/25/22



# 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	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">C_03829 POD1</a>	CUB	LE	3 3 1 06	26S	32E	620628	3549186	291	646	350	296				
<a href="#">C_03554 POD1</a>	CUB	ED	2 1 4 01	26S	31E	620547	3549148	370	630	300	330				
<a href="#">C_04209 POD2</a>	C	LE	2 3 3 06	26S	32E	620818	3548657	503	340	155	185				
<a href="#">C_04209 POD1</a>	CUB	LE	2 3 3 06	26S	32E	620903	3548619	530	360	155	205				
<a href="#">C_04256 POD1</a>	C	ED	4 4 2 01	26S	31E	620384	3549257	544	666	340	326				
<a href="#">C_03639 POD1</a>	CUB	ED	3 4 2 01	26S	31E	620168	3549279	761	700	365	335				

Average Depth to Water: **277 feet**  
 Minimum Depth: **155 feet**  
 Maximum Depth: **365 feet**

**Record Count:** 6

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 620918.11

**Northing (Y):** 3549150.24

**Radius:** 804.67

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9/20/22 1:37 PM

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)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64 Q16 Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	03829 POD1	3 3 1	06	26S	32E	620628	3549186

<b>Driller License:</b> 1607	<b>Driller Company:</b> DURAN DRILLING	
<b>Driller Name:</b> DURAN, LUIS (TONY)		
<b>Drill Start Date:</b> 02/11/2015	<b>Drill Finish Date:</b> 02/12/2015	<b>Plug Date:</b>
<b>Log File Date:</b> 02/23/2015	<b>PCW Rev Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 58 GPM
<b>Casing Size:</b> 7.00	<b>Depth Well:</b> 646 feet	<b>Depth Water:</b> 350 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	330	337	Sandstone/Gravel/Conglomerate
	390	470	Sandstone/Gravel/Conglomerate
	580	610	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	341	645

<b>Meter Number:</b> 16581	<b>Meter Make:</b> MASTERMETER
<b>Meter Serial Number:</b> 32531561	<b>Meter Multiplier:</b> 100.0000
<b>Number of Dials:</b> 6	<b>Meter Type:</b> Diversion
<b>Unit of Measure:</b> Gallons	<b>Return Flow Percent:</b>
<b>Usage Multiplier:</b>	<b>Reading Frequency:</b>

**Meter Readings (in Acre-Feet)**

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
03/03/2015	2015	0	A	RPT		0
04/02/2015	2015	4343	A	RPT		1.333
04/30/2015	2015	4343	A	RPT		0
05/31/2015	2015	4343	A	RPT		0
07/01/2015	2015	4343	A	RPT		0
08/01/2015	2015	4343	A	RPT		0
08/31/2015	2015	4616	A	RPT		0.084
10/01/2015	2015	4616	A	RPT		0

<b>**YTD Meter Amounts:</b>	<b>Year</b>	<b>Amount</b>
	2015	1.417

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# 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)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64 Q16 Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	03554 POD1	2 1 4	01	26S	31E	620547	3549148

<b>Driller License:</b> 1654	<b>Driller Company:</b> NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC
<b>Driller Name:</b>	

<b>Drill Start Date:</b> 10/22/2012	<b>Drill Finish Date:</b> 10/26/2012	<b>Plug Date:</b>
<b>Log File Date:</b> 10/29/2012	<b>PCW Rcv Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b> 10.00	<b>Depth Well:</b> 630 feet	<b>Depth Water:</b> 300 feet

Water Bearing Stratifications:	Top	Bottom	Description
	350	360	Sandstone/Gravel/Conglomerate
	550	600	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	570	630

<b>Meter Number:</b> 16569	<b>Meter Make:</b> MASTERMETER
<b>Meter Serial Number:</b> 8149888	<b>Meter Multiplier:</b> 100.0000
<b>Number of Dials:</b> 6	<b>Meter Type:</b> Diversion
<b>Unit of Measure:</b> Gallons	<b>Return Flow Percent:</b>
<b>Usage Multiplier:</b>	<b>Reading Frequency:</b>

**Meter Readings (in Acre-Feet)**

Read Date	Year	Mtr Reading	Flag	Rdr Comment	Mtr Amount Online
04/01/2014	2014	73841	A	RPT	0
07/01/2014	2014	98877	A	RPT	7.683
12/31/2014	2014	131292	A	RPT	9.948
02/01/2015	2015	135717	A	RPT	1.358
03/02/2015	2015	141038	A	RPT	1.633
04/01/2015	2015	147017	A	RPT	1.835
04/30/2015	2015	154655	A	RPT	2.344
05/31/2015	2015	161539	A	RPT	2.113
07/01/2015	2015	168829	A	RPT	2.237
08/01/2015	2015	173843	A	RPT	1.539
08/31/2015	2015	180421	A	RPT	2.019
10/01/2015	2015	187448	A	RPT	2.157

<b>**YTD Meter Amounts:</b>	<b>Year</b>	<b>Amount</b>
	2014	17.631
	2015	17.235

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# 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)		
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
NA	C 04209 POD2	2	3	3	06	26S	32E	620818	3548657

<b>Driller License:</b>	1706	<b>Driller Company:</b>	ELITE DRILLERS CORPORATION		
<b>Driller Name:</b>	BRYCE WALLACE				
<b>Drill Start Date:</b>	05/07/2018	<b>Drill Finish Date:</b>	05/09/2018	<b>Plug Date:</b>	
<b>Log File Date:</b>	05/21/2018	<b>PCW Rev Date:</b>		<b>Source:</b>	Shallow
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b>	5 GPM
<b>Casing Size:</b>	6.00	<b>Depth Well:</b>	340 feet	<b>Depth Water:</b>	155 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	18	320	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	200	340

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POINT OF DIVERSION SUMMARY



# 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)		
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
NA	C 04209 POD1	2	3	3	06	26S	32E	620903	3548619

<b>Driller License:</b> 1706	<b>Driller Company:</b> ELITE DRILLERS CORPORATION	
<b>Driller Name:</b> BRYCE WALLACE		
<b>Drill Start Date:</b> 04/28/2018	<b>Drill Finish Date:</b> 05/01/2018	<b>Plug Date:</b>
<b>Log File Date:</b> 05/21/2018	<b>PCW Rev Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 25 GPM
<b>Casing Size:</b> 6.00	<b>Depth Well:</b> 360 feet	<b>Depth Water:</b> 155 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	15	350	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	200	360

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POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

<b>Well Tag</b>	<b>POD Number</b>		(quarters are 1=NW 2=NE 3=SW 4=SE)		(NAD83 UTM in meters)
			(quarters are smallest to largest)		
			<b>Q64 Q16 Q4 Sec TwS Rng</b>	<b>X</b>	<b>Y</b>
NA	C 04256 POD1		4 4 2 01 26S 31E	620384	3549257

<b>Driller License:</b> 1706	<b>Driller Company:</b> ELITE DRILLERS CORPORATION	
<b>Driller Name:</b> BRYCE WALLACE		
<b>Drill Start Date:</b> 06/28/2018	<b>Drill Finish Date:</b> 07/04/2018	<b>Plug Date:</b>
<b>Log File Date:</b> 07/18/2018	<b>PCW Rev Date:</b>	<b>Source:</b> Artesian
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 40 GPM
<b>Casing Size:</b> 5.80	<b>Depth Well:</b> 666 feet	<b>Depth Water:</b> 340 feet

Water Bearing Stratifications:	Top	Bottom	Description
	330	390	Sandstone/Gravel/Conglomerate
	390	430	Sandstone/Gravel/Conglomerate
	430	480	Sandstone/Gravel/Conglomerate
	480	610	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	326	666

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9/20/22 1:25 PM

POINT OF DIVERSION SUMMARY



# 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)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	03639 POD1	3	4	2	01	26S	31E	620168	3549279

<b>Driller License:</b> 1654	<b>Driller Company:</b> NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC	
<b>Driller Name:</b>		
<b>Drill Start Date:</b> 09/23/2013	<b>Drill Finish Date:</b> 09/25/2013	<b>Plug Date:</b>
<b>Log File Date:</b> 10/25/2013	<b>PCW Rcv Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b> 6.00	<b>Depth Well:</b> 700 feet	<b>Depth Water:</b> 365 feet

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	560	600	Sandstone/Gravel/Conglomerate

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	600	660

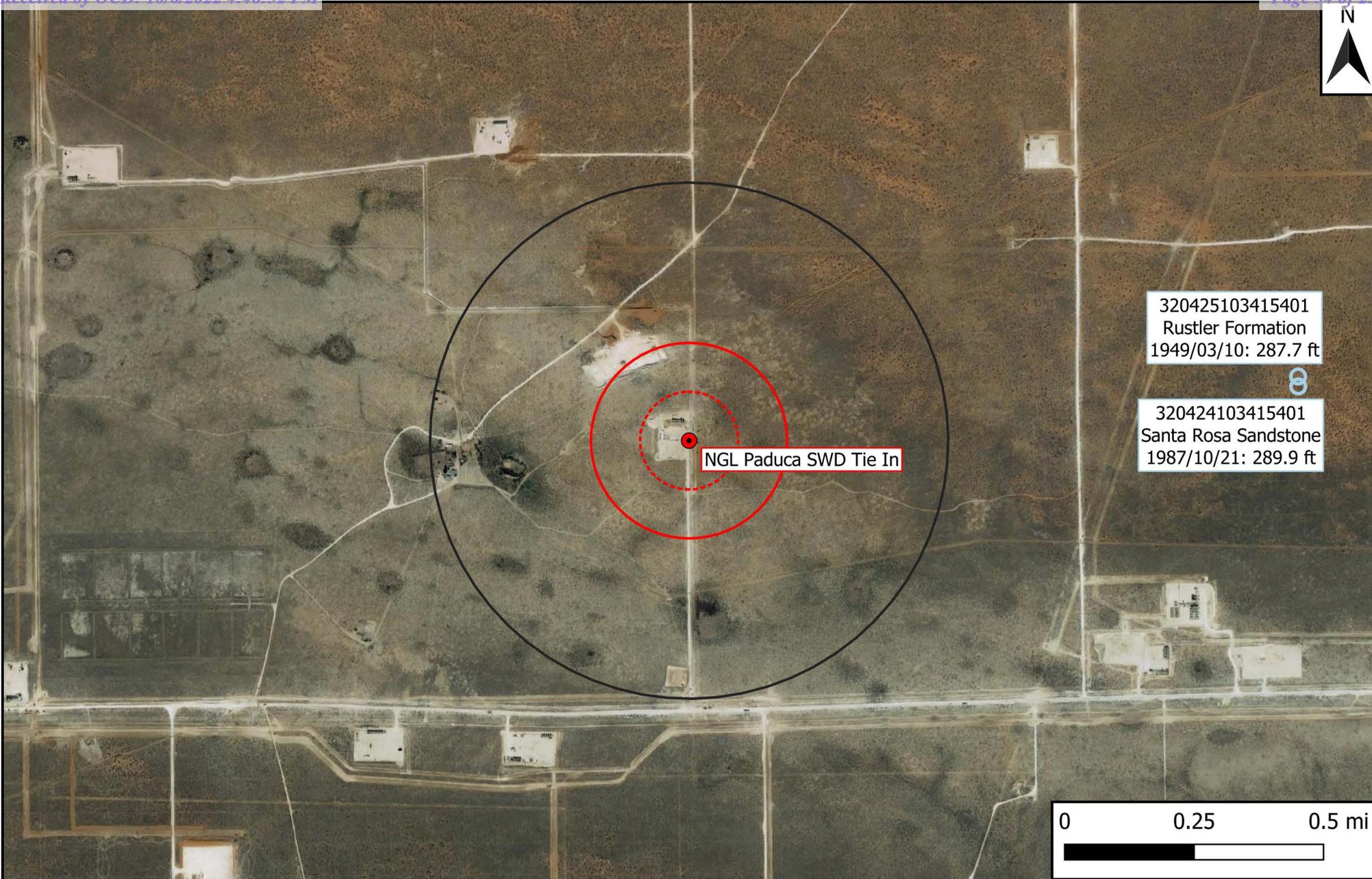
<b>Meter Number:</b> 16575	<b>Meter Make:</b> MASTERMETER
<b>Meter Serial Number:</b> 8827642	<b>Meter Multiplier:</b> 100.0000
<b>Number of Dials:</b> 6	<b>Meter Type:</b> Diversion
<b>Unit of Measure:</b> Gallons	<b>Return Flow Percent:</b>
<b>Usage Multiplier:</b>	<b>Reading Frequency:</b>

**Meter Readings (in Acre-Feet)**

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
12/26/2013	2013	4487	A	RPT		0
04/01/2014	2014	15593	A	RPT		3.408
07/01/2014	2014	27654	A	RPT		3.701
10/01/2014	2014	43114	A	RPT		4.744
12/31/2014	2014	54047	A	RPT		3.355
02/01/2015	2015	55287	A	RPT		0.381
03/02/2015	2015	56670	A	RPT		0.424
04/02/2015	2015	60341	A	RPT		1.127
04/30/2015	2015	65590	A	RPT		1.611
05/31/2015	2015	71252	A	RPT		1.738
07/01/2015	2015	74451	A	RPT		0.982
08/01/2015	2015	77975	A	RPT		1.081
08/31/2015	2015	82253	A	RPT		1.313
10/01/2015	2015	86369	A	RPT		1.263

<b>**YTD Meter Amounts:</b>	<b>Year</b>	<b>Amount</b>
	2013	0
	2014	15.208
	2015	9.920

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- 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  
 NGL Paduca SWD Tie In  
 GPS: 32.072144, -103.718881  
 Lea County



Drafted: bja

Checked: jwl

Date: 8/25/22



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National Water Information System: Web Interface

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Data Category:  Geographic Area:

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Groundwater levels for the Nation

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

**Search Results -- 1 sites found**

Agency code = usgs  
site\_no list =  
• 320424103415401

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

**USGS 320424103415401 26S.31E.01.421322**

Eddy County, New Mexico  
Latitude 32°04'24", Longitude 103°41'54" NAD27  
Land-surface elevation 3,294 feet above NAVD88  
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
1983-01-26			D	72019	290.12		1	Z			A
1983-02-14			D	72019	289.42		1	Z			A
1987-10-21			D	72019	289.90		1	Z			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	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**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: 2022-09-20 13:14:53 EDT

0.34 0.26 nadww01



**National Water Information System: Web Interface**

[USGS Water Resources](#)

Data Category:  Geographic Area:

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Groundwater levels for the Nation

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**Search Results -- 1 sites found**

Agency code = usgs  
 site\_no list =  
 • 320425103415401

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

**USGS 320425103415401 26S.31E.01.42110**

Eddy County, New Mexico  
 Latitude 32°04'25", Longitude 103°41'54" NAD27  
 Land-surface elevation 3,295 feet above NAVD88  
 The depth of the well is 340 feet below land surface.  
 This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
 This well is completed in the Rustler Formation (312RSLR) 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
1949-03-10		D	72019	287.70			1	Z			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	Z	Other:
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**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: 2022-09-20 13:16:28 EDT

0.35 0.28 nadww01

# Appendix B

## Field Data & Soil Profile Logs





### Sample Log

Date: 6/7/22

Project: Paduca 6 SWD 1

Project Number: 16039

Latitude: 32.072194

Longitude: -103.718877

Sample ID	PID/Odor	Chloride Conc.	GPS
2WS4		7.2 1896	
WWS1		5.4 1020 on pad - WWS	
FS 13 @ 4'		8.8 > 2552 5.0 4192	
FS 14 @ 4'		8.6 > 2552 5.0 4192	
FS 15 @ 4'		8.4 > 2552 4.6 3592	
FS 16 @ 4'		8.6 > 2552 4.8 3060	
FS 12 @ 1ft		1,196	
FS 13 @ 1ft		760	
FS 14 @ 1ft		536	
FS 15 @ 1ft		824	
FS 16 @ 1ft		824	
FS 17 @ 1ft		588	
FS 18 @ 4ft		4,332	
FS 19 @ 4ft		5,060	
FS 20 @ 4ft		2,856	
FS 21 @ 4ft		2,856	
FS 22 @ 4ft		3,392	
FS 23 @ 4ft		2,856	
FS 24 @ 4ft		4,332	
FS 25 @ 4ft		3,392	
WWS 1		6,356	
SWS 1		588	
EWS 4		352	
EWS 5		892	
FS 26 @ 4ft		2,376	
FS 27 @ 4ft		5,060	
FS 28 @ 4ft		7,972	
FS 29 @ 4ft		1,932	
FS 30 @ 4ft		2,156	
FS 31 @ 4ft		5,464	
FS 32 @ 4ft		1,568	
FS 33 @ 4ft		2,608	
EWS 6		2,080	
EWS 7		1,808	
FS 34 @ 4ft		4,840	
FS 35 @ 4ft		3,180	

Sample Point = SP #1 @ ## etc      Test Trench = TT #1 @ ##      Resamples = SP #1 @ 5b or SW #1b  
 Floor = FL #1 etc      Refusal = SP #1 @ 4'-R      Stockpile = Stockpile #1  
 Sidewall = SW #1 etc      Soil Intended to be Deferred = SP #1 @ 4' In-Situ      GPS Sample Points, Center of Comp Areas



# Sample Log

Date: \_\_\_\_\_

Project: Reduce 6 SWD#1

Project Number: \_\_\_\_\_ Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Sample ID	PID/Odor	Chloride Conc.	GPS
<del>EW5</del> EW5 8		644	
WWS 2		2648	Pool
WWS 3		220	
WWS 4		220	
FS 36 @ 4ft		2412	
TT-1		1036	
		2,608	
		1896	
		1,284	
		892	
TT-6		536	
WWS Test		1284	
FS 37 @ 4ft		3,472	
FS 38 @ 4ft		964	
FS 39 @ 4ft		1,572	
FS 40 @ 4ft		2,904	
FS 41 @ 4ft		3,180	
FS 42 @ 4ft		3,472	
FS 43 @ 4ft		1,964	
FS 44 @ 4ft		4,840	
<del>EW5</del> WWS 5		2,608	
EW5 9		2,236	
EW5 10		356	
FS 45 @ 4ft		4,112	
FS 46 @ 4ft		3,472	
FS 47 @ 4ft		1,964	
FS 48 @ 4ft		4,112	
EW5 11		2,648	
FS 49 @ 4ft		3,180	
FS 50 @ 4ft		3,180	
FS 51 @ 4ft		3,180	
FS 52 @ 4ft		1,964	
TT-2 @ 9ft		700	
FS 53 @ 4ft		2,904	
FS 54 @ 4ft		4,112	
TT-2 @ 8ft		700	

Sample Point = SP #1 @ ## etc      Test Trench = TT #1 @ ##      Resamples = SP #1 @ 5b or SW #1b  
 Floor = FL #1 etc      Refusal = SP #1 @ 4'-R      Stockpile = Stockpile #1  
 Sidewall = SW #1 etc      Soil Intended to be Deferred = SP #1 @ 4' In-Situ      GPS Sample Points, Center of Comp Areas



### Sample Log

Project: Paduca 6 SWD #1  
 Project Number: 16039

Date: 6/6/22  
 Latitude: 32.072194 Longitude: 703.718847

Sample ID	PID/Odor	Chloride Conc.		GPS
<del>SW54</del>	-	8.0	2584	
<del>SW55</del>	-	10.0	>2584	
<del>NWS2</del>	-	9.2	>2584	
<del>FS13</del>	-	8.6	>2584	
<del>FS14</del>	-	9.0	>2584	
<del>FS15</del>	-	8.2	>2584	
<del>FS16</del>	-	8.0	2584	
<del>FS17</del>	-	8.8	>2584	
<del>FST</del>	-	8.4	>2584	
SW1	-	6.0	1292	• TT30 0'
WWT	-	6.6	1584	
TT30 5'	-	9.0	>2584	•
TT30 7'	-	8.0	2584	
TT30 9'	-	7.0	1812	
TT30 11'	-	7.0	1812	•
TT30 14'	✓	6.4	1480	
TT30 18'	-	7.4	294	•
TT1 @ 0'	-	10.0	>2584	
TT1 @ 2'	-	7.0	1812	
TT1 @ 4'	-	4.4	704	
TT1 @ 5.5'	-	5.0	900	
TT1 @ 6'	-	4.6	768	
6/7/22				
TT1 @ 7'	-	2.8	316	
TT2 @ 0'	-	9.2	>2584	
TT2 @ 2'	-	7.8	2396	- New Inv
TT2 @ 4'	-	5.0	880	
TT2 @ 6'	-	8.6	>2552	
TT2 @ 8' -R	-	7.4	2036	
TT4 @ 0'	-	9.2	>2552	
TT4 @ 2'	-	3.6	488	
PS1 @ 0'	-	10.0	>2552	8.4 18212
PS2 @ 0'	Slight	10.0	>2552	9.0 26716
PS3 @ 0'	-	9.4	>2552	6.2 6664
PS4 @ 0'	-	9.4	>2552	6.4 7216
PS5 @ 0'	-	11.0	>2552	8.8 23288

Sample Point = SP #1 @ ## etc      Test Trench = TT #1 @ ##      Resamples= SP #1 @ 5b or SW #1b  
 Floor = FL #1 etc      Refusal = SP #1 @ 4'-R      Stockpile = Stockpile #1  
 Sidewall = SW #1 etc      Soil Intended to be Deferred = SP #1 @ 4' In-Situ      GPS Sample Points, Center of Comp Areas



### Sample Log

Date: \_\_\_\_\_

Project: Paduca G. SWD #1

Project Number: \_\_\_\_\_

Latitude: \_\_\_\_\_

Longitude: \_\_\_\_\_

Sample ID	PID/Odor	Chloride Conc.	Sample ID	Chloride C
TT-2 @ 9FT		1808	FS 72 @ 6in	4,840
TT-2 @ 10FT		960	FS 73	10,668
TT-2 @ 12FT		220	FS 74	18,428
FS 55 @ 2 inches		892	FS 75	11,592
FS 56 @ ↓		644	FS 76	18,428
FS 57 @ ↓		644	FS 77	18,428
FS 58 @ 2 inches		1,196	FS 78	18,428
FS 11 @ 2FT		396	FS 79 ↓	16,636
FS 12		488	FS 80 @ 6in	16,636
FS 13		396	FS 67 @ <del>5in</del> 2608	
FS 14		396	FS 68 @ SW	1,576
FS 15		440	FS 69 @ SW	1,576
FS 16 ↓		536	FS 70 @ SW	2,608
FS 17 @ 2FT		396	FS 67 @ 4FT	892
FS 10 @ 2FT		396	FS 68 @ 4FT	588
FS 55 @ 5in		488	FS 69 @ 4FT	760
FS 56 @ 5in		536	FS 70 @ 4FT	644
FS 57 @ 5in		488		
FS 58 @ 5in		488		
FS test on Road surface		320		
FS test on Road surface		284		
FS test on Road surface		396		
EWS		220		
NWS		396		
WWS		284		
FS 59 @ 4FT		220		
EWS 6		488		
EWS 7		1284		
EWS 8		824		
EWS 7		536		
EWS 8		588		
FS 63 @ 4FT		280		
FS 64 @ 4FT		192		
FS 65 @ 4FT		396		
FS 66 @ 4FT		700		
FS 71 @ 6in		11,592		

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

Date: \_\_\_\_\_

Project: Paduca 6 SWD #1

Project Number:                      Pending                      Latitude:                      32.072194                      Longitude:                      -103.718847                     

Depth (ft. bgs)

- 1
- 2
- 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

Description

0-4'  
4-8'  
8-12'

Caliche - sand  
rock - Caliche  
caliche - clay

# **Appendix C**

## **Photographic Log**

### Photographic Log

<b>Photo Number:</b> 1	
<b>Photo Direction:</b> Southeast	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 2	
<b>Photo Direction:</b> Northeast	
<b>Photo Description:</b>  View of the affected area.	

### Photographic Log

<b>Photo Number:</b> 3	
<b>Photo Direction:</b> South-Southeast	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 4	
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the affected area.	

### Photographic Log

<b>Photo Number:</b> 5	
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 6	
<b>Photo Direction:</b> North-Northeast	
<b>Photo Description:</b>  View of the affected area.	

### Photographic Log

<b>Photo Number:</b> 7	 <p>21/06/2022 11:30 +32.071471,-103.718878</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 8	 <p>21/06/2022 11:30 +32.071471,-103.718878</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the excavated area.	

### Photographic Log

<b>Photo Number:</b> 9	 <p>21/06/2022 11:31 +32.071689,-103.718720</p>
<b>Photo Direction:</b> Northwest	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 10	 <p>21/06/2022 11:32 +32.071793,-103.718735</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the excavated area.	

### Photographic Log

<b>Photo Number:</b> 11	 <p>21/06/2022 11:32 +32.071899,-103.718766</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 12	 <p>21/06/2022 11:32 +32.072002,-103.718786</p>
<b>Photo Direction:</b> Southwest	
<b>Photo Description:</b>  View of the excavated area.	

### Photographic Log

<b>Photo Number:</b> 13	 <p>Network: Jul 8, 2022 at 3:01:59 PM MDT Local: Jul 8, 2022 at 3:02:00 PM MDT N 32° 4' 15.668", W 103° 43' 8.505" Jal NM 88252 United States</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

<b>Photo Number:</b> 14	 <p>Network: Jul 8, 2022 at 3:02:28 PM MDT Local: Jul 8, 2022 at 3:02:29 PM MDT N 32° 4' 15.461", W 103° 43' 7.687" Jal NM 88252 United States</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

### Photographic Log

<b>Photo Number:</b> 15	 <p>Network: Jul 8, 2022 at 3:02:59 PM MDT Local: Jul 8, 2022 at 3:03:00 PM MDT N 32° 4' 15.461", W 103° 43' 7.687" Jal-NM 88252 United States</p>
<b>Photo Direction:</b> North	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

<b>Photo Number:</b> 16	 <p>Network: Jul 8, 2022 at 3:34:36 PM MDT Local: Jul 8, 2022 at 3:34:36 PM MDT N 32° 4' 21.319", W 103° 43' 7.196" Jal-NM 88252 United States</p>
<b>Photo Direction:</b> South	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

### Photographic Log

<b>Photo Number:</b> 17	 <p>Network: Jul 8, 2022 at 3:34:56 PM MDT Local: Jul 8, 2022 at 3:34:56 PM MDT N 32° 4' 20.922", W 103° 43' 7.029" Jal NM 88252 United States</p>
<b>Photo Direction:</b> South-Southeast	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

<b>Photo Number:</b> 18	 <p>Network: Jul 8, 2022 at 4:17:44 PM MDT Local: Jul 8, 2022 at 4:17:44 PM MDT N 32° 4' 22.394", W 103° 43' 6.586" Jal NM 88252 United States</p>
<b>Photo Direction:</b> South-Southeast	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

# Appendix D

## Laboratory Analytical Reports



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

---

June 08, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/03/22 13:11.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://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".

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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: EWS 1 (H222367-01)**

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	06/06/2022	ND	2.04	102	2.00	5.47	
Toluene*	<0.050	0.050	06/06/2022	ND	2.05	102	2.00	5.77	
Ethylbenzene*	<0.050	0.050	06/06/2022	ND	1.91	95.6	2.00	5.61	
Total Xylenes*	<0.150	0.150	06/06/2022	ND	5.97	99.4	6.00	5.57	
Total BTEX	<0.300	0.300	06/06/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 80.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 88.4 % 59.5-142

Cardinal Laboratories

\* = Accredited Analyte

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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: 06/03/2022  
 Reported: 06/08/2022  
 Project Name: PADUCA 6 SWD #1  
 Project Number: NONE GIVEN  
 Project Location: MEWBOURNE - LEA CO NM

Sampling Date: 06/03/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: EWS 2 (H222367-02)**

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	06/07/2022	ND	2.04	102	2.00	5.47		
Toluene*	<0.050	0.050	06/07/2022	ND	2.05	102	2.00	5.77		
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.91	95.6	2.00	5.61		
Total Xylenes*	<0.150	0.150	06/07/2022	ND	5.97	99.4	6.00	5.57		
Total BTEX	<0.300	0.300	06/07/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88		
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND						

Surrogate: 1-Chlorooctane 84.3 % 66.9-136

Surrogate: 1-Chlorooctadecane 93.0 % 59.5-142

Cardinal Laboratories

\* = Accredited Analyte

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: EWS 3 (H222367-03)**

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	06/07/2022	ND	2.04	102	2.00	5.47		
Toluene*	<0.050	0.050	06/07/2022	ND	2.05	102	2.00	5.77		
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.91	95.6	2.00	5.61		
Total Xylenes*	<0.150	0.150	06/07/2022	ND	5.97	99.4	6.00	5.57		
Total BTEX	<0.300	0.300	06/07/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88		
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND						

Surrogate: 1-Chlorooctane 86.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 94.8 % 59.5-142

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\* = Accredited Analyte

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: NWS 1 (H222367-04)**

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	06/07/2022	ND	2.04	102	2.00	5.47		
Toluene*	<0.050	0.050	06/07/2022	ND	2.05	102	2.00	5.77		
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.91	95.6	2.00	5.61		
Total Xylenes*	<0.150	0.150	06/07/2022	ND	5.97	99.4	6.00	5.57		
Total BTEX	<0.300	0.300	06/07/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88		
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND						

Surrogate: 1-Chlorooctane 79.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 87.5 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 1 @ 1' (H222367-05)**

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	06/07/2022	ND	2.04	102	2.00	5.47	
Toluene*	<0.050	0.050	06/07/2022	ND	2.05	102	2.00	5.77	
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.91	95.6	2.00	5.61	
Total Xylenes*	<0.150	0.150	06/07/2022	ND	5.97	99.4	6.00	5.57	
Total BTEX	<0.300	0.300	06/07/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 81.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 89.5 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 2 @ 1' (H222367-06)**

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	06/07/2022	ND	2.04	102	2.00	5.47	
Toluene*	<0.050	0.050	06/07/2022	ND	2.05	102	2.00	5.77	
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.91	95.6	2.00	5.61	
Total Xylenes*	<0.150	0.150	06/07/2022	ND	5.97	99.4	6.00	5.57	
Total BTEX	<0.300	0.300	06/07/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 84.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 92.6 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 3 @ 0-6" (H222367-07)**

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	06/07/2022	ND	2.04	102	2.00	5.47	
Toluene*	<0.050	0.050	06/07/2022	ND	2.05	102	2.00	5.77	
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.91	95.6	2.00	5.61	
Total Xylenes*	<0.150	0.150	06/07/2022	ND	5.97	99.4	6.00	5.57	
Total BTEX	<0.300	0.300	06/07/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 81.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 89.9 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 4 @ 0-6" (H222367-08)**

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	06/07/2022	ND	2.04	102	2.00	5.47	
Toluene*	<0.050	0.050	06/07/2022	ND	2.05	102	2.00	5.77	
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.91	95.6	2.00	5.61	
Total Xylenes*	<0.150	0.150	06/07/2022	ND	5.97	99.4	6.00	5.57	
Total BTEX	<0.300	0.300	06/07/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 80.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 88.5 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 5 @ 0-6" (H222367-09)**

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	06/07/2022	ND	2.04	102	2.00	5.47	
Toluene*	<0.050	0.050	06/07/2022	ND	2.05	102	2.00	5.77	
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.91	95.6	2.00	5.61	
Total Xylenes*	<0.150	0.150	06/07/2022	ND	5.97	99.4	6.00	5.57	
Total BTEX	<0.300	0.300	06/07/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 81.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 89.6 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 6 @ 0-6" (H222367-10)**

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	06/07/2022	ND	2.09	104	2.00	12.2		
Toluene*	<0.050	0.050	06/07/2022	ND	2.07	104	2.00	12.9		
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	2.00	100	2.00	12.0		
Total Xylenes*	<0.150	0.150	06/07/2022	ND	6.25	104	6.00	12.3		
Total BTEX	<0.300	0.300	06/07/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88		
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND						

Surrogate: 1-Chlorooctane 81.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 88.9 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 7 @ 0-6" (H222367-11)**

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	06/07/2022	ND	2.09	104	2.00	12.2		
Toluene*	<0.050	0.050	06/07/2022	ND	2.07	104	2.00	12.9		
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	2.00	100	2.00	12.0		
Total Xylenes*	<0.150	0.150	06/07/2022	ND	6.25	104	6.00	12.3		
Total BTEX	<0.300	0.300	06/07/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88		
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND						

Surrogate: 1-Chlorooctane 80.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 89.7 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 8 @ 0-6" (H222367-12)**

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	06/07/2022	ND	2.09	104	2.00	12.2	
Toluene*	<0.050	0.050	06/07/2022	ND	2.07	104	2.00	12.9	
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	2.00	100	2.00	12.0	
Total Xylenes*	<0.150	0.150	06/07/2022	ND	6.25	104	6.00	12.3	
Total BTEX	<0.300	0.300	06/07/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 69.9-140

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	06/07/2022	ND	416	104	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	06/07/2022	ND	188	94.1	200	2.34	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 82.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 91.6 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 9 @ 0-6" (H222367-13)**

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	06/07/2022	ND	2.11	106	2.00	2.76		
Toluene*	<0.050	0.050	06/07/2022	ND	2.11	106	2.00	2.82		
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.98	99.1	2.00	3.27		
Total Xylenes*	<0.150	0.150	06/07/2022	ND	6.20	103	6.00	4.08		
Total BTEX	<0.300	0.300	06/07/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

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	06/07/2022	ND	416	104	400	8.00		

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	06/07/2022	ND	188	94.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88		
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND						

Surrogate: 1-Chlorooctane 86.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 95.9 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 10 @ 10" (H222367-14)**

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	06/07/2022	ND	2.11	106	2.00	2.76		
Toluene*	<0.050	0.050	06/07/2022	ND	2.11	106	2.00	2.82		
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.98	99.1	2.00	3.27		
Total Xylenes*	<0.150	0.150	06/07/2022	ND	6.20	103	6.00	4.08		
Total BTEX	<0.300	0.300	06/07/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	06/07/2022	ND	416	104	400	8.00		

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	06/07/2022	ND	188	94.1	200	2.34		
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	202	101	200	4.88		
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND						

Surrogate: 1-Chlorooctane 78.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 86.4 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 11 @ 1' (H222367-15)**

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	06/07/2022	ND	2.11	106	2.00	2.76	
Toluene*	<0.050	0.050	06/07/2022	ND	2.11	106	2.00	2.82	
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.98	99.1	2.00	3.27	
Total Xylenes*	<0.150	0.150	06/07/2022	ND	6.20	103	6.00	4.08	
Total BTEX	<0.300	0.300	06/07/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/07/2022	ND	416	104	400	8.00	

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	06/07/2022	ND	208	104	200	5.89	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	193	96.5	200	12.2	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 88.8 % 66.9-136

Surrogate: 1-Chlorooctadecane 91.8 % 59.5-142

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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:	06/03/2022	Sampling Date:	06/03/2022
Reported:	06/08/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 12 @ 1' (H222367-16)**

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	06/07/2022	ND	2.11	106	2.00	2.76	
Toluene*	<0.050	0.050	06/07/2022	ND	2.11	106	2.00	2.82	
Ethylbenzene*	<0.050	0.050	06/07/2022	ND	1.98	99.1	2.00	3.27	
Total Xylenes*	<0.150	0.150	06/07/2022	ND	6.20	103	6.00	4.08	
Total BTEX	<0.300	0.300	06/07/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	06/07/2022	ND	416	104	400	8.00	

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	06/07/2022	ND	208	104	200	5.89	
DRO >C10-C28*	<10.0	10.0	06/07/2022	ND	193	96.5	200	12.2	
EXT DRO >C28-C36	<10.0	10.0	06/07/2022	ND					

Surrogate: 1-Chlorooctane 91.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 94.6 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager







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

---

October 03, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/08/22 15:00.

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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PS 1 @ 0'	H222447-01	Soil	08-Jun-22 00:00	08-Jun-22 15:00
PS 2 @ 0'	H222447-02	Soil	08-Jun-22 00:00	08-Jun-22 15:00
PS 3 @ 0'	H222447-03	Soil	08-Jun-22 00:00	08-Jun-22 15:00
PS 4 @ 0'	H222447-04	Soil	08-Jun-22 00:00	08-Jun-22 15:00
PS 5 @ 0'	H222447-05	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 1 @ 0'	H222447-06	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 1 @ 4'	H222447-07	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 1 @ 7'	H222447-08	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 2 @ 0'	H222447-09	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 2 @ 4'	H222447-10	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 2 @ 8' - R	H222447-11	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 3 @ 0'	H222447-12	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 3 @ 5'	H222447-13	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 3 @ 11'	H222447-14	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 3 @ 18'	H222447-15	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 4 @ 0'	H222447-16	Soil	08-Jun-22 00:00	08-Jun-22 15:00
TT 4 @ 2'	H222447-17	Soil	08-Jun-22 00:00	08-Jun-22 15:00
WWS 1	H222447-18	Soil	08-Jun-22 00:00	08-Jun-22 15:00
FS 13 @ 2'	H222447-19	Soil	08-Jun-22 00:00	08-Jun-22 15:00
FS 14 @ 2'	H222447-20	Soil	08-Jun-22 00:00	08-Jun-22 15:00
FS 15 @ 2'	H222447-21	Soil	08-Jun-22 00:00	08-Jun-22 15:00
FS 16 @ 2'	H222447-22	Soil	08-Jun-22 00:00	08-Jun-22 15:00

10/03/22 - Client changed sample IDs for -19 through -22 (See COC). This is the revised report and will replace the one sent on 06/14/22.

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**PS 1 @ 0'**  
**H222447-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>33600</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-Cl-B	QM-07
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
<b>Toluene*</b>	<b>0.119</b>		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	GC-NC1
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			107 %	69.9-140		2060918	JH	09-Jun-22	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
Surrogate: 1-Chlorooctane			74.6 %	66.9-136		2060911	MS	10-Jun-22	8015B	
Surrogate: 1-Chlorooctadecane			80.7 %	59.5-142		2060911	MS	10-Jun-22	8015B	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**PS 2 @ 0'**  
**H222447-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>25600</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060918	JH	09-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.4 %		69.9-140	2060918	JH	09-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>148</b>		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>186</b>		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			84.2 %		66.9-136	2060911	MS	10-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			103 %		59.5-142	2060911	MS	10-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**PS 3 @ 0'**  
**H222447-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>6260</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060918	JH	09-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	69.9-140		2060918	JH	09-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>24.9</b>		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>36.1</b>		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			79.3 %	66.9-136		2060911	MS	10-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			86.2 %	59.5-142		2060911	MS	10-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**PS 4 @ 0'**  
**H222447-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>16800</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060918	JH	09-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	69.9-140		2060918	JH	09-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			77.2 %	66.9-136		2060911	MS	10-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			83.5 %	59.5-142		2060911	MS	10-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**PS 5 @ 0'**  
**H222447-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>33600</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060918	JH	09-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060918	JH	09-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	69.9-140		2060918	JH	09-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID****S-04**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>91.8</b>		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>89.3</b>		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			64.5 %	66.9-136		2060911	MS	10-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			78.2 %	59.5-142		2060911	MS	10-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 1 @ 0'**  
**H222447-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>39600</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.200		0.200	mg/kg	200	2060918	JH	14-Jun-22	8021B	
Toluene*	<0.200		0.200	mg/kg	200	2060918	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.200		0.200	mg/kg	200	2060918	JH	14-Jun-22	8021B	
Total Xylenes*	<0.600		0.600	mg/kg	200	2060918	JH	14-Jun-22	8021B	GC-NC1
Total BTEX	<1.20		1.20	mg/kg	200	2060918	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.4 %		69.9-140	2060918	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>32.2</b>		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>21.8</b>		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			77.4 %		66.9-136	2060911	MS	10-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			86.3 %		59.5-142	2060911	MS	10-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 1 @ 4'**  
**H222447-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	720		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060918	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060918	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060918	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060918	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060918	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			103 %	69.9-140		2060918	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

Surrogate: 1-Chlorooctane			70.5 %	66.9-136		2060911	MS	10-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			77.4 %	59.5-142		2060911	MS	10-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 1 @ 7'**  
**H222447-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>16.0</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060918	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060918	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060918	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060918	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060918	JH	10-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	69.9-140		2060918	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			76.5 %	66.9-136		2060911	MS	10-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			82.1 %	59.5-142		2060911	MS	10-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 2 @ 0'**  
**H222447-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	8000		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

Surrogate: 1-Chlorooctane			76.9 %	66.9-136		2060911	MS	10-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			82.5 %	59.5-142		2060911	MS	10-Jun-22	8015B	
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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 2 @ 4'**  
**H222447-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>848</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060911	MS	10-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			71.2 %	66.9-136		2060911	MS	10-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			76.9 %	59.5-142		2060911	MS	10-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 2 @ 8' - R****H222447-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>2800</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %		69.9-140	2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			84.7 %		66.9-136	2060921	MS	09-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			84.3 %		59.5-142	2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 3 @ 0'**  
**H222447-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>1460</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			80.5 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			80.5 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 3 @ 5'**  
**H222447-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>6000</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.2 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			92.7 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 3 @ 11'**  
**H222447-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	2040		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

Surrogate: 1-Chlorooctane			93.9 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			96.3 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 3 @ 18'**  
**H222447-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	80.0		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

Surrogate: 1-Chlorooctane			92.8 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			90.6 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 4 @ 0'**  
**H222447-16 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>5440</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>140</b>		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>34.6</b>		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

Surrogate: 1-Chlorooctane			74.3 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			74.4 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**TT 4 @ 2'**  
**H222447-17 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>208</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			92.6 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			91.7 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**WWS 1**  
**H222447-18 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>928</b>		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			103 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			102 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**FS 13 @ 2'**  
**H222447-19 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	6080		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			103 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

Surrogate: 1-Chlorooctane			89.0 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			88.9 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**FS 14 @ 2'**  
**H222447-20 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	4080		16.0	mg/kg	4	2061014	AC	10-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			105 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

Surrogate: 1-Chlorooctane			100 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			100 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**FS 15 @ 2'**  
**H222447-21 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	4000		16.0	mg/kg	4	2061015	AC	10-Jun-22	4500-CI-B	QM-07
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140 2060919 JH 10-Jun-22 8021B

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

Surrogate: 1-Chlorooctane 99.9 % 66.9-136 2060921 MS 09-Jun-22 8015B

Surrogate: 1-Chlorooctadecane 97.6 % 59.5-142 2060921 MS 09-Jun-22 8015B

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**FS 16 @ 2'**  
**H222447-22 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	4720		16.0	mg/kg	4	2061015	AC	10-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2060919	JH	10-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2060919	JH	10-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %	69.9-140		2060919	JH	10-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2060921	MS	09-Jun-22	8015B	

Surrogate: 1-Chlorooctane			90.8 %	66.9-136		2060921	MS	09-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			88.6 %	59.5-142		2060921	MS	09-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 03-Oct-22 08:58
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2061014 - 1:4 DI Water**

<b>Blank (2061014-BLK1)</b>		Prepared & Analyzed: 10-Jun-22								
Chloride	ND	16.0	mg/kg							
<b>LCS (2061014-BS1)</b>		Prepared & Analyzed: 10-Jun-22								
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (2061014-BSD1)</b>		Prepared & Analyzed: 10-Jun-22								
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	

**Batch 2061015 - 1:4 DI Water**

<b>Blank (2061015-BLK1)</b>		Prepared & Analyzed: 10-Jun-22								
Chloride	ND	16.0	mg/kg							
<b>LCS (2061015-BS1)</b>		Prepared & Analyzed: 10-Jun-22								
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (2061015-BSD1)</b>		Prepared & Analyzed: 10-Jun-22								
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2060918 - Volatiles****Blank (2060918-BLK1)**

Prepared &amp; Analyzed: 09-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0514		mg/kg	0.0500		103	69.9-140			

**LCS (2060918-BS1)**

Prepared &amp; Analyzed: 09-Jun-22

Benzene	1.85	0.050	mg/kg	2.00		92.4	83.4-122			
Toluene	1.98	0.050	mg/kg	2.00		99.2	84.2-126			
Ethylbenzene	1.84	0.050	mg/kg	2.00		92.2	84.2-121			
m,p-Xylene	3.65	0.100	mg/kg	4.00		91.4	89.9-126			
o-Xylene	1.78	0.050	mg/kg	2.00		89.0	84.3-123			
Total Xylenes	5.43	0.150	mg/kg	6.00		90.6	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0517		mg/kg	0.0500		103	69.9-140			

**LCS Dup (2060918-BS1)**

Prepared &amp; Analyzed: 09-Jun-22

Benzene	2.04	0.050	mg/kg	2.00		102	83.4-122	9.82	12.6	
Toluene	2.14	0.050	mg/kg	2.00		107	84.2-126	7.61	13.3	
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	84.2-121	10.1	13.9	
m,p-Xylene	4.10	0.100	mg/kg	4.00		103	89.9-126	11.6	13.6	
o-Xylene	2.01	0.050	mg/kg	2.00		100	84.3-123	11.9	14.1	
Total Xylenes	6.11	0.150	mg/kg	6.00		102	89.1-124	11.7	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0523		mg/kg	0.0500		105	69.9-140			

**Batch 2060919 - Volatiles****Blank (2060919-BLK1)**

Prepared: 09-Jun-22 Analyzed: 10-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2060919 - Volatiles****Blank (2060919-BLK1)**

Prepared: 09-Jun-22 Analyzed: 10-Jun-22

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		99.7	69.9-140			

**LCS (2060919-BS1)**

Prepared: 09-Jun-22 Analyzed: 10-Jun-22

Benzene	1.96	0.050	mg/kg	2.00		98.0	83.4-122			
Toluene	2.01	0.050	mg/kg	2.00		100	84.2-126			
Ethylbenzene	1.90	0.050	mg/kg	2.00		95.2	84.2-121			
m,p-Xylene	3.78	0.100	mg/kg	4.00		94.5	89.9-126			
o-Xylene	1.86	0.050	mg/kg	2.00		92.8	84.3-123			
Total Xylenes	5.64	0.150	mg/kg	6.00		93.9	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0519		mg/kg	0.0500		104	69.9-140			

**LCS Dup (2060919-BSD1)**

Prepared: 09-Jun-22 Analyzed: 10-Jun-22

Benzene	2.08	0.050	mg/kg	2.00		104	83.4-122	5.83	12.6	
Toluene	2.18	0.050	mg/kg	2.00		109	84.2-126	8.10	13.3	
Ethylbenzene	2.08	0.050	mg/kg	2.00		104	84.2-121	8.90	13.9	
m,p-Xylene	4.18	0.100	mg/kg	4.00		104	89.9-126	10.0	13.6	
o-Xylene	2.02	0.050	mg/kg	2.00		101	84.3-123	8.44	14.1	
Total Xylenes	6.20	0.150	mg/kg	6.00		103	89.1-124	9.52	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0531		mg/kg	0.0500		106	69.9-140			

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2060911 - General Prep - Organics****Blank (2060911-BLK1)**

Prepared &amp; Analyzed: 09-Jun-22

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	46.1		mg/kg	50.0		92.2	66.9-136			
Surrogate: 1-Chlorooctadecane	51.4		mg/kg	50.0		103	59.5-142			

**LCS (2060911-BS1)**

Prepared &amp; Analyzed: 09-Jun-22

GRO C6-C10	179	10.0	mg/kg	200		89.6	78.5-128			
DRO >C10-C28	184	10.0	mg/kg	200		92.0	75.8-135			
Total TPH C6-C28	363	10.0	mg/kg	400		90.8	81.5-127			
Surrogate: 1-Chlorooctane	53.0		mg/kg	50.0		106	66.9-136			
Surrogate: 1-Chlorooctadecane	57.1		mg/kg	50.0		114	59.5-142			

**LCS Dup (2060911-BSD1)**

Prepared &amp; Analyzed: 09-Jun-22

GRO C6-C10	191	10.0	mg/kg	200		95.4	78.5-128	6.28	21.4	
DRO >C10-C28	198	10.0	mg/kg	200		99.2	75.8-135	7.53	17.9	
Total TPH C6-C28	389	10.0	mg/kg	400		97.3	81.5-127	6.91	17.6	
Surrogate: 1-Chlorooctane	56.7		mg/kg	50.0		113	66.9-136			
Surrogate: 1-Chlorooctadecane	62.3		mg/kg	50.0		125	59.5-142			

**Batch 2060921 - General Prep - Organics****Blank (2060921-BLK1)**

Prepared &amp; Analyzed: 09-Jun-22

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	55.5		mg/kg	50.0		111	66.9-136			
Surrogate: 1-Chlorooctadecane	56.3		mg/kg	50.0		113	59.5-142			

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 08:58

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2060921 - General Prep - Organics****LCS (2060921-BS1)**

Prepared &amp; Analyzed: 09-Jun-22

GRO C6-C10	194	10.0	mg/kg	200		97.2	78.5-128			
DRO >C10-C28	183	10.0	mg/kg	200		91.7	75.8-135			
Total TPH C6-C28	378	10.0	mg/kg	400		94.4	81.5-127			
Surrogate: 1-Chlorooctane	59.7		mg/kg	50.0		119	66.9-136			
Surrogate: 1-Chlorooctadecane	62.5		mg/kg	50.0		125	59.5-142			

**LCS Dup (2060921-BSD1)**

Prepared &amp; Analyzed: 09-Jun-22

GRO C6-C10	192	10.0	mg/kg	200		95.9	78.5-128	1.35	21.4	
DRO >C10-C28	181	10.0	mg/kg	200		90.6	75.8-135	1.18	17.9	
Total TPH C6-C28	373	10.0	mg/kg	400		93.3	81.5-127	1.27	17.6	
Surrogate: 1-Chlorooctane	61.5		mg/kg	50.0		123	66.9-136			
Surrogate: 1-Chlorooctadecane	64.2		mg/kg	50.0		128	59.5-142			

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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.
GC-NC1 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celest D. Keene

Celey D. Keene, Lab Director/Quality Manager









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

October 04, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/10/22 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
04-Oct-22 13:41

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 18 @ 4'	H222506-01	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 19 @ 4'	H222506-02	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 20 @ 4'	H222506-03	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 21 @ 4'	H222506-04	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 22 @ 4'	H222506-05	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 23 @ 4'	H222506-06	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 24 @ 4'	H222506-07	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 25 @ 4'	H222506-08	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 26 @ 4'	H222506-09	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 27 @ 4'	H222506-10	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 28 @ 4'	H222506-11	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 29 @ 4'	H222506-12	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 30 @ 4'	H222506-13	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 31 @ 4'	H222506-14	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 32 @ 4'	H222506-15	Soil	10-Jun-22 00:00	10-Jun-22 16:50
FS 33 @ 4'	H222506-16	Soil	10-Jun-22 00:00	10-Jun-22 16:50
SWS 1	H222506-17	Soil	10-Jun-22 00:00	10-Jun-22 16:50
WWS 1	H222506-18	Soil	10-Jun-22 00:00	10-Jun-22 16:50
EWS 4	H222506-19	Soil	10-Jun-22 00:00	10-Jun-22 16:50
EWS 5	H222506-20	Soil	10-Jun-22 00:00	10-Jun-22 16:50

10/04/22 - Client changed the sample ID on -17 (See COC). This is the revised report and will replace the one sent on 06/15/22.

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
04-Oct-22 13:41

**FS 18 @ 4'**  
**H222506-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>4960</b>		16.0	mg/kg	4	2061408	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061319	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061319	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061319	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061319	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061319	JH/	14-Jun-22	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			97.5 %		69.9-140	2061319	JH/	14-Jun-22	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
Surrogate: 1-Chlorooctane			100 %		66.9-136	2061311	MS	13-Jun-22	8015B	
Surrogate: 1-Chlorooctadecane			117 %		59.5-142	2061311	MS	13-Jun-22	8015B	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 19 @ 4'**  
**H222506-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>5120</b>		16.0	mg/kg	4	2061408	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.4 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			99.3 %		66.9-136	2061311	MS	13-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			115 %		59.5-142	2061311	MS	13-Jun-22	8015B	
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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 20 @ 4'**  
**H222506-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3040</b>		16.0	mg/kg	4	2061408	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			97.6 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			86.7 %		66.9-136	2061311	MS	13-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			102 %		59.5-142	2061311	MS	13-Jun-22	8015B	
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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 21 @ 4'**  
**H222506-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3240</b>		16.0	mg/kg	4	2061408	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.1 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			98.9 %		66.9-136	2061311	MS	13-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			114 %		59.5-142	2061311	MS	13-Jun-22	8015B	
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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 22 @ 4'  
H222506-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3440</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			97.2 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			89.9 %		66.9-136	2061311	MS	13-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			105 %		59.5-142	2061311	MS	13-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 23 @ 4'**  
**H222506-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>2680</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			96.8 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			106 %		66.9-136	2061311	MS	13-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			123 %		59.5-142	2061311	MS	13-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 24 @ 4'**  
**H222506-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3640</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.1 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			99.1 %		66.9-136	2061311	MS	13-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			114 %		59.5-142	2061311	MS	13-Jun-22	8015B	
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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 25 @ 4'**  
**H222506-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3080</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			97.4 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	13-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			94.2 %		66.9-136	2061311	MS	13-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			109 %		59.5-142	2061311	MS	13-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 26 @ 4'  
H222506-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>2200</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.1 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			95.5 %		66.9-136	2061311	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			111 %		59.5-142	2061311	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 27 @ 4'**  
**H222506-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>4680</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.4 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			99.2 %		66.9-136	2061311	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			115 %		59.5-142	2061311	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 28 @ 4'**  
**H222506-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>6800</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			97.7 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>30.5</b>		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			102 %		66.9-136	2061311	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			121 %		59.5-142	2061311	MS	14-Jun-22	8015B	
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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
04-Oct-22 13:41

**FS 29 @ 4'**  
**H222506-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	2480		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061320	JH/	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061320	JH/	14-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			97.7 %		69.9-140	2061320	JH/	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061311	MS	14-Jun-22	8015B	

Surrogate: 1-Chlorooctane			99.6 %		66.9-136	2061311	MS	14-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			117 %		59.5-142	2061311	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 30 @ 4'**  
**H222506-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1600</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061403	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	69.9-140		2061403	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>11.7</b>		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			88.5 %	66.9-136		2061327	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			96.3 %	59.5-142		2061327	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 31 @ 4'**  
**H222506-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>3400</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061403	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		69.9-140	2061403	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>13.6</b>		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			96.4 %		66.9-136	2061327	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			104 %		59.5-142	2061327	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 32 @ 4'  
H222506-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1150</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061403	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		69.9-140	2061403	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.0 %		66.9-136	2061327	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			94.2 %		59.5-142	2061327	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**FS 33 @ 4'**  
**H222506-16 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>2960</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061403	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %		69.9-140	2061403	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>12.0</b>		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			86.2 %		66.9-136	2061327	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			92.3 %		59.5-142	2061327	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**SWS 1  
H222506-17 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>208</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061403	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		69.9-140	2061403	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			85.3 %		66.9-136	2061327	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			88.6 %		59.5-142	2061327	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**WWS 1  
H222506-18 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>6000</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061403	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		69.9-140	2061403	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			83.4 %		66.9-136	2061327	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			89.3 %		59.5-142	2061327	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**EWS 4  
H222506-19 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>432</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061403	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %		69.9-140	2061403	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.9 %		66.9-136	2061327	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			95.3 %		59.5-142	2061327	MS	14-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**EWS 5  
H222506-20 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>1040</b>		16.0	mg/kg	4	2061417	AC	14-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2061403	JH	14-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2061403	JH	14-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		69.9-140	2061403	JH	14-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2061327	MS	14-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			81.9 %		66.9-136	2061327	MS	14-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			86.5 %		59.5-142	2061327	MS	14-Jun-22	8015B	
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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2061408 - 1:4 DI Water</b>										
<b>Blank (2061408-BLK1)</b> Prepared & Analyzed: 14-Jun-22										
Chloride	ND	16.0	mg/kg							
<b>LCS (2061408-BS1)</b> Prepared & Analyzed: 14-Jun-22										
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (2061408-BSD1)</b> Prepared & Analyzed: 14-Jun-22										
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20	
<b>Batch 2061417 - 1:4 DI Water</b>										
<b>Blank (2061417-BLK1)</b> Prepared & Analyzed: 14-Jun-22										
Chloride	ND	16.0	mg/kg							
<b>LCS (2061417-BS1)</b> Prepared & Analyzed: 14-Jun-22										
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (2061417-BSD1)</b> Prepared & Analyzed: 14-Jun-22										
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
04-Oct-22 13:41

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2061319 - Volatiles****Blank (2061319-BLK1)**

Prepared: 13-Jun-22 Analyzed: 14-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		96.9	69.9-140			

**LCS (2061319-BS1)**

Prepared: 13-Jun-22 Analyzed: 14-Jun-22

Benzene	2.07	0.050	mg/kg	2.00		104	83.4-122			
Toluene	2.08	0.050	mg/kg	2.00		104	84.2-126			
Ethylbenzene	2.01	0.050	mg/kg	2.00		101	84.2-121			
m,p-Xylene	4.25	0.100	mg/kg	4.00		106	89.9-126			
o-Xylene	2.01	0.050	mg/kg	2.00		101	84.3-123			
Total Xylenes	6.26	0.150	mg/kg	6.00		104	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0475		mg/kg	0.0500		95.1	69.9-140			

**LCS Dup (2061319-BSD1)**

Prepared: 13-Jun-22 Analyzed: 14-Jun-22

Benzene	2.04	0.050	mg/kg	2.00		102	83.4-122	1.47	12.6	
Toluene	2.06	0.050	mg/kg	2.00		103	84.2-126	0.998	13.3	
Ethylbenzene	2.00	0.050	mg/kg	2.00		100	84.2-121	0.588	13.9	
m,p-Xylene	4.23	0.100	mg/kg	4.00		106	89.9-126	0.377	13.6	
o-Xylene	1.99	0.050	mg/kg	2.00		99.5	84.3-123	1.12	14.1	
Total Xylenes	6.22	0.150	mg/kg	6.00		104	89.1-124	0.615	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0478		mg/kg	0.0500		95.7	69.9-140			

**Batch 2061320 - Volatiles****Blank (2061320-BLK1)**

Prepared &amp; Analyzed: 13-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
04-Oct-22 13:41

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2061320 - Volatiles****Blank (2061320-BLK1)**

Prepared &amp; Analyzed: 13-Jun-22

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		98.6	69.9-140			

**LCS (2061320-BS1)**

Prepared &amp; Analyzed: 13-Jun-22

Benzene	1.92	0.050	mg/kg	2.00		96.2	83.4-122			
Toluene	1.92	0.050	mg/kg	2.00		96.2	84.2-126			
Ethylbenzene	1.88	0.050	mg/kg	2.00		94.1	84.2-121			
m,p-Xylene	4.00	0.100	mg/kg	4.00		100	89.9-126			
o-Xylene	1.90	0.050	mg/kg	2.00		95.1	84.3-123			
Total Xylenes	5.90	0.150	mg/kg	6.00		98.4	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0471		mg/kg	0.0500		94.1	69.9-140			

**LCS Dup (2061320-BSD1)**

Prepared &amp; Analyzed: 13-Jun-22

Benzene	2.02	0.050	mg/kg	2.00		101	83.4-122	5.00	12.6	
Toluene	2.04	0.050	mg/kg	2.00		102	84.2-126	5.70	13.3	
Ethylbenzene	1.98	0.050	mg/kg	2.00		98.9	84.2-121	4.96	13.9	
m,p-Xylene	4.19	0.100	mg/kg	4.00		105	89.9-126	4.51	13.6	
o-Xylene	1.97	0.050	mg/kg	2.00		98.5	84.3-123	3.54	14.1	
Total Xylenes	6.15	0.150	mg/kg	6.00		103	89.1-124	4.20	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0472		mg/kg	0.0500		94.4	69.9-140			

**Batch 2061403 - Volatiles****Blank (2061403-BLK1)**

Prepared &amp; Analyzed: 14-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0506		mg/kg	0.0500		101	69.9-140			

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
04-Oct-22 13:41

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2061403 - Volatiles****LCS (2061403-BS1)**

Prepared &amp; Analyzed: 14-Jun-22

Benzene	1.97	0.050	mg/kg	2.00		98.5	83.4-122			
Toluene	2.02	0.050	mg/kg	2.00		101	84.2-126			
Ethylbenzene	1.92	0.050	mg/kg	2.00		95.8	84.2-121			
m,p-Xylene	4.03	0.100	mg/kg	4.00		101	89.9-126			
o-Xylene	1.92	0.050	mg/kg	2.00		95.8	84.3-123			
Total Xylenes	5.94	0.150	mg/kg	6.00		99.0	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0496		mg/kg	0.0500		99.2	69.9-140			

**LCS Dup (2061403-BS1)**

Prepared &amp; Analyzed: 14-Jun-22

Benzene	1.94	0.050	mg/kg	2.00		96.9	83.4-122	1.60	12.6	
Toluene	2.00	0.050	mg/kg	2.00		100	84.2-126	0.771	13.3	
Ethylbenzene	1.89	0.050	mg/kg	2.00		94.6	84.2-121	1.23	13.9	
m,p-Xylene	3.98	0.100	mg/kg	4.00		99.5	89.9-126	1.17	13.6	
o-Xylene	1.93	0.050	mg/kg	2.00		96.6	84.3-123	0.915	14.1	
Total Xylenes	5.91	0.150	mg/kg	6.00		98.6	89.1-124	0.496	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0487		mg/kg	0.0500		97.4	69.9-140			

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2061311 - General Prep - Organics**

<b>Blank (2061311-BLK1)</b>		Prepared & Analyzed: 13-Jun-22								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	49.8		mg/kg	50.0		99.6	66.9-136			
Surrogate: 1-Chlorooctadecane	55.6		mg/kg	50.0		111	59.5-142			

<b>LCS (2061311-BS1)</b>		Prepared & Analyzed: 13-Jun-22								
GRO C6-C10	200	10.0	mg/kg	200		100	78.5-128			
DRO >C10-C28	213	10.0	mg/kg	200		106	75.8-135			
Total TPH C6-C28	413	10.0	mg/kg	400		103	81.5-127			
Surrogate: 1-Chlorooctane	53.1		mg/kg	50.0		106	66.9-136			
Surrogate: 1-Chlorooctadecane	61.2		mg/kg	50.0		122	59.5-142			

<b>LCS Dup (2061311-BSD1)</b>		Prepared & Analyzed: 13-Jun-22								
GRO C6-C10	208	10.0	mg/kg	200		104	78.5-128	3.95	21.4	
DRO >C10-C28	231	10.0	mg/kg	200		115	75.8-135	7.98	17.9	
Total TPH C6-C28	439	10.0	mg/kg	400		110	81.5-127	6.05	17.6	
Surrogate: 1-Chlorooctane	57.3		mg/kg	50.0		115	66.9-136			
Surrogate: 1-Chlorooctadecane	65.7		mg/kg	50.0		131	59.5-142			

**Batch 2061327 - General Prep - Organics**

<b>Blank (2061327-BLK1)</b>		Prepared & Analyzed: 13-Jun-22								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	47.5		mg/kg	50.0		95.0	66.9-136			
Surrogate: 1-Chlorooctadecane	50.3		mg/kg	50.0		101	59.5-142			

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**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 04-Oct-22 13:41
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2061327 - General Prep - Organics**

<b>LCS (2061327-BS1)</b>		Prepared & Analyzed: 13-Jun-22								
GRO C6-C10	214	10.0	mg/kg	200		107	78.5-128			
DRO >C10-C28	227	10.0	mg/kg	200		113	75.8-135			
Total TPH C6-C28	440	10.0	mg/kg	400		110	81.5-127			
Surrogate: 1-Chlorooctane	52.9		mg/kg	50.0		106	66.9-136			
Surrogate: 1-Chlorooctadecane	57.8		mg/kg	50.0		116	59.5-142			
<b>LCS Dup (2061327-BSD1)</b>		Prepared & Analyzed: 13-Jun-22								
GRO C6-C10	222	10.0	mg/kg	200		111	78.5-128	3.87	21.4	
DRO >C10-C28	230	10.0	mg/kg	200		115	75.8-135	1.46	17.9	
Total TPH C6-C28	452	10.0	mg/kg	400		113	81.5-127	2.64	17.6	
Surrogate: 1-Chlorooctane	57.6		mg/kg	50.0		115	66.9-136			
Surrogate: 1-Chlorooctadecane	60.7		mg/kg	50.0		121	59.5-142			

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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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager







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

---

June 17, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/14/22 16:54.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://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".

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:	06/14/2022	Sampling Date:	06/14/2022
Reported:	06/17/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 34 @ 4' (H222553-01)**

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	06/15/2022	ND	2.14	107	2.00	6.08	
Toluene*	<0.050	0.050	06/15/2022	ND	2.12	106	2.00	4.96	
Ethylbenzene*	<0.050	0.050	06/15/2022	ND	2.07	103	2.00	5.77	
Total Xylenes*	<0.150	0.150	06/15/2022	ND	6.44	107	6.00	5.97	
Total BTEX	<0.300	0.300	06/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	189	94.5	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	191	95.4	200	9.55	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 85.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 83.1 % 59.5-142

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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:	06/14/2022	Sampling Date:	06/14/2022
Reported:	06/17/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 35 @ 4' (H222553-02)**

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	06/15/2022	ND	2.14	107	2.00	6.08	
Toluene*	<0.050	0.050	06/15/2022	ND	2.12	106	2.00	4.96	
Ethylbenzene*	<0.050	0.050	06/15/2022	ND	2.07	103	2.00	5.77	
Total Xylenes*	<0.150	0.150	06/15/2022	ND	6.44	107	6.00	5.97	
Total BTEX	<0.300	0.300	06/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3760	16.0	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	189	94.5	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	191	95.4	200	9.55	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 94.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 92.3 % 59.5-142

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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: 06/14/2022  
 Reported: 06/17/2022  
 Project Name: PADUCA 6 SWD #1  
 Project Number: 16039  
 Project Location: MEWBOURNE - LEA CO NM

Sampling Date: 06/14/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 36 @ 4' (H222553-03)**

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	06/15/2022	ND	2.14	107	2.00	6.08	
Toluene*	<0.050	0.050	06/15/2022	ND	2.12	106	2.00	4.96	
Ethylbenzene*	<0.050	0.050	06/15/2022	ND	2.07	103	2.00	5.77	
Total Xylenes*	<0.150	0.150	06/15/2022	ND	6.44	107	6.00	5.97	
Total BTEX	<0.300	0.300	06/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2080	16.0	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	189	94.5	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	191	95.4	200	9.55	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 97.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 96.9 % 59.5-142

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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:	06/14/2022	Sampling Date:	06/14/2022
Reported:	06/17/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 37 @ 4' (H222553-04)**

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	06/15/2022	ND	2.14	107	2.00	6.08	
Toluene*	<0.050	0.050	06/15/2022	ND	2.12	106	2.00	4.96	
Ethylbenzene*	<0.050	0.050	06/15/2022	ND	2.07	103	2.00	5.77	
Total Xylenes*	<0.150	0.150	06/15/2022	ND	6.44	107	6.00	5.97	
Total BTEX	<0.300	0.300	06/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2800	16.0	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	189	94.5	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	191	95.4	200	9.55	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 97.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 96.0 % 59.5-142

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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:	06/14/2022	Sampling Date:	06/14/2022
Reported:	06/17/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 38 @ 4' (H222553-05)**

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	06/15/2022	ND	2.14	107	2.00	6.08	
Toluene*	<0.050	0.050	06/15/2022	ND	2.12	106	2.00	4.96	
Ethylbenzene*	<0.050	0.050	06/15/2022	ND	2.07	103	2.00	5.77	
Total Xylenes*	<0.150	0.150	06/15/2022	ND	6.44	107	6.00	5.97	
Total BTEX	<0.300	0.300	06/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	189	94.5	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	191	95.4	200	9.55	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 105 % 66.9-136

Surrogate: 1-Chlorooctadecane 104 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/14/2022	Sampling Date:	06/14/2022
Reported:	06/17/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 39 @ 4' (H222553-06)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 69.9-140

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	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	189	94.5	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	191	95.4	200	9.55	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 107 % 66.9-136

Surrogate: 1-Chlorooctadecane 104 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/14/2022	Sampling Date:	06/14/2022
Reported:	06/17/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 40 @ 4' (H222553-07)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	189	94.5	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	191	95.4	200	9.55	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 89.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 86.7 % 59.5-142

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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: 06/14/2022  
 Reported: 06/17/2022  
 Project Name: PADUCA 6 SWD #1  
 Project Number: 16039  
 Project Location: MEWBOURNE - LEA CO NM

Sampling Date: 06/14/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 41 @ 4' (H222553-08)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2320	16.0	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	192	96.0	200	6.76	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	200	99.8	200	6.75	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 93.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 104 % 59.5-142

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\* = Accredited Analyte

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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: 06/14/2022  
 Reported: 06/17/2022  
 Project Name: PADUCA 6 SWD #1  
 Project Number: 16039  
 Project Location: MEWBOURNE - LEA CO NM

Sampling Date: 06/14/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 42 @ 4' (H222553-09)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3200	16.0	06/15/2022	ND	432	108	400	3.64	

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	06/15/2022	ND	192	96.0	200	6.76	
DRO >C10-C28*	<10.0	10.0	06/15/2022	ND	200	99.8	200	6.75	
EXT DRO >C28-C36	<10.0	10.0	06/15/2022	ND					

Surrogate: 1-Chlorooctane 88.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 97.4 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- 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 LCS/D recovery and/or RPD values.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

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

Company Name: Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																			
Project Manager: <i>Jane Cronshaw</i>				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (8015M)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (8021B)</div> </div>																			
Address: P.O. Box 301				Company: <i>Mewburne</i>																							
City: Lovington		State: NM		Zip: 88260		Attn: <i>Robbie Kennels</i>																					
Phone #: (575) 396-2378		Fax #: (575) 396-1429		Address:																							
Project #: <i>16039</i>		Project Owner:		City:																							
Project Name: <i>Paduca 6 SWD #1</i>				State:		Zip:																					
Project Location:				Phone #:																							
Sampler Name: <i>Aaron Rios</i>				Fax #:																							
FOR LAB USE ONLY																											
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS														MATRIX		PRESERV.		SAMPLING			
				GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME			
<i>H000553</i>																											
<i>1</i>		<i>FS 34</i>		<i>4 FT</i>		<i>X</i>		<i>X</i>														<i>6-11-22</i>					
<i>2</i>		<i>FS 35</i>				<i>X</i>		<i>X</i>																			
<i>3</i>		<i>FS 36</i>				<i>X</i>		<i>X</i>																			
<i>4</i>		<i>FS 37</i>				<i>X</i>		<i>X</i>																			
<i>5</i>		<i>FS 38</i>				<i>X</i>		<i>X</i>																			
<i>6</i>		<i>FS 39</i>				<i>X</i>		<i>X</i>																			
<i>7</i>		<i>FS 40</i>				<i>X</i>		<i>X</i>																			
<i>8</i>		<i>FS 41</i>				<i>X</i>		<i>X</i>																			
<i>9</i>		<i>FS 42</i>				<i>X</i>		<i>X</i>																			
<i>AR</i>		<i>F</i>				<i>X</i>		<i>X</i>																			

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Relinquished By: <i>Aaron Rios</i>	Date: <i>4/10/22</i>	Received By: <i>S. Rodriguez</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Time: <i>1054</i>			Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
Time:			Please email results to pm@etechenv.com.	

Delivered By: (Circle One) <i>4.8°C - 0.5°C</i>	Sample Condition	CHECKED BY: <i>SR</i>
<i>4.3°C #113</i>	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	(Initials)
Sampler - UPS - Bus - Other:	<input type="checkbox"/> Yes <input type="checkbox"/> Yes	
	<input type="checkbox"/> No <input type="checkbox"/> No	



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June 20, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/15/22 16:03.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://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".

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:	06/15/2022	Sampling Date:	06/15/2022
Reported:	06/20/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 43 @ 4' (H222569-01)**

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	06/16/2022	ND	2.18	109	2.00	3.80	QR-03	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61		
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25		
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97		
Total BTEX	<0.300	0.300	06/16/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	06/16/2022	ND	384	96.0	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	06/16/2022	ND	184	92.2	200	7.97		
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82		
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND						

Surrogate: 1-Chlorooctane 86.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 95.2 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/15/2022	Sampling Date:	06/15/2022
Reported:	06/20/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 44 @ 4' (H222569-02)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3040	16.0	06/16/2022	ND	384	96.0	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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 82.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 92.1 % 59.5-142

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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:	06/15/2022	Sampling Date:	06/15/2022
Reported:	06/20/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 45 @ 4' (H222569-03)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3320	16.0	06/16/2022	ND	384	96.0	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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 87.8 % 66.9-136

Surrogate: 1-Chlorooctadecane 99.2 % 59.5-142

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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: 06/15/2022  
 Reported: 06/20/2022  
 Project Name: PADUCA 6 SWD #1  
 Project Number: 16039  
 Project Location: MEWBOURNE - LEA CO NM

Sampling Date: 06/15/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 46 @ 4' (H222569-04)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	06/16/2022	ND	384	96.0	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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 93.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 105 % 59.5-142

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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: 06/15/2022  
 Reported: 06/20/2022  
 Project Name: PADUCA 6 SWD #1  
 Project Number: 16039  
 Project Location: MEWBOURNE - LEA CO NM

Sampling Date: 06/15/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS 47 @ 4' (H222569-05)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	06/16/2022	ND	384	96.0	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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 93.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 103 % 59.5-142

Cardinal Laboratories

\* = Accredited Analyte

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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:	06/15/2022	Sampling Date:	06/15/2022
Reported:	06/20/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 48 @ 4' (H222569-06)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	06/16/2022	ND	448	112	400	3.64	QM-07

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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 90.8 % 66.9-136

Surrogate: 1-Chlorooctadecane 100 % 59.5-142

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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:	06/15/2022	Sampling Date:	06/15/2022
Reported:	06/20/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 49 @ 4' (H222569-07)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3000	16.0	06/16/2022	ND	448	112	400	3.64	

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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 91.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 101 % 59.5-142

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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:	06/15/2022	Sampling Date:	06/15/2022
Reported:	06/20/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 50 @ 4' (H222569-08)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2640	16.0	06/16/2022	ND	448	112	400	3.64	

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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 87.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 97.6 % 59.5-142

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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:	06/15/2022	Sampling Date:	06/15/2022
Reported:	06/20/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 51 @ 4' (H222569-09)**

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	06/16/2022	ND	2.18	109	2.00	3.80	
Toluene*	<0.050	0.050	06/16/2022	ND	2.15	108	2.00	3.61	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	2.09	104	2.00	3.25	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.44	107	6.00	2.97	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3480	16.0	06/16/2022	ND	448	112	400	3.64	

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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 92.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 103 % 59.5-142

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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:	06/15/2022	Sampling Date:	06/15/2022
Reported:	06/20/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 52 @ 4' (H222569-10)**

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	06/16/2022	ND	2.08	104	2.00	1.57	
Toluene*	<0.050	0.050	06/16/2022	ND	2.07	104	2.00	0.666	
Ethylbenzene*	<0.050	0.050	06/16/2022	ND	1.97	98.7	2.00	1.49	
Total Xylenes*	<0.150	0.150	06/16/2022	ND	6.17	103	6.00	2.17	
Total BTEX	<0.300	0.300	06/16/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1520	16.0	06/16/2022	ND	448	112	400	3.64	

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	06/16/2022	ND	184	92.2	200	7.97	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	192	95.9	200	8.82	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 89.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 99.4 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- 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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager





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

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October 03, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/17/22 15:40.

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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 10 @ 2'	H222609-01	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 11 @ 2'	H222609-02	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 12 @ 2'	H222609-03	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 13 @ 4'	H222609-04	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 14 @ 4'	H222609-05	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 15 @ 4'	H222609-06	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 16 @ 4'	H222609-07	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 17 @ 2'	H222609-08	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 53 @ 4'	H222609-09	Soil	17-Jun-22 00:00	17-Jun-22 15:40
FS 54 @ 4'	H222609-10	Soil	17-Jun-22 00:00	17-Jun-22 15:40

10/03/22 - Client changed the sample IDs on -04 through -07 (See COC). This is the revised report and will replace the one sent on 06/22/22.

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 10 @ 2'**  
**H222609-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>496</b>		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			99.1 %	69.9-140		2062003	JH	20-Jun-22	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
Surrogate: 1-Chlorooctane			94.3 %	66.9-136		2062007	MS	21-Jun-22	8015B	
Surrogate: 1-Chlorooctadecane			104 %	59.5-142		2062007	MS	21-Jun-22	8015B	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 11 @ 2'**  
**H222609-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>320</b>		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062003	JH	20-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.9 %		69.9-140	2062003	JH	20-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			95.7 %		66.9-136	2062007	MS	21-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			106 %		59.5-142	2062007	MS	21-Jun-22	8015B	
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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 12 @ 2'**  
**H222609-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>592</b>		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062003	JH	20-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.1 %		69.9-140	2062003	JH	20-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			95.3 %		66.9-136	2062007	MS	21-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			107 %		59.5-142	2062007	MS	21-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 13 @ 4'**  
**H222609-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	336		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062003	JH	20-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062003	JH	20-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			99.2 %		69.9-140	2062003	JH	20-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

Surrogate: 1-Chlorooctane			95.6 %		66.9-136	2062007	MS	21-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			106 %		59.5-142	2062007	MS	21-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 14 @ 4'**  
**H222609-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>592</b>		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062004	JH	21-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.1 %		69.9-140	2062004	JH	21-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			98.6 %		66.9-136	2062007	MS	21-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			109 %		59.5-142	2062007	MS	21-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 15 @ 4'**  
**H222609-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	208		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062004	JH	21-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.4 %		69.9-140	2062004	JH	21-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

Surrogate: 1-Chlorooctane			98.7 %		66.9-136	2062007	MS	21-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			109 %		59.5-142	2062007	MS	21-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 16 @ 4'**  
**H222609-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>560</b>		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062004	JH	21-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.5 %		69.9-140	2062004	JH	21-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			95.6 %		66.9-136	2062007	MS	21-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			106 %		59.5-142	2062007	MS	21-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 17 @ 2'**  
**H222609-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	384		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062004	JH	21-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			99.2 %	69.9-140		2062004	JH	21-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

Surrogate: 1-Chlorooctane			94.3 %	66.9-136		2062007	MS	21-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			105 %	59.5-142		2062007	MS	21-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 53 @ 4'**  
**H222609-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	3160		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062004	JH	21-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.8 %		69.9-140	2062004	JH	21-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

Surrogate: 1-Chlorooctane			96.9 %		66.9-136	2062007	MS	21-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			109 %		59.5-142	2062007	MS	21-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**FS 54 @ 4'**  
**H222609-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>3600</b>		16.0	mg/kg	4	2062111	GM	21-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062004	JH	21-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062004	JH	21-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			98.7 %		69.9-140	2062004	JH	21-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062007	MS	21-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			92.8 %		66.9-136	2062007	MS	21-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			103 %		59.5-142	2062007	MS	21-Jun-22	8015B	
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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 03-Oct-22 09:01
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2062111 - 1:4 DI Water</b>										
<b>Blank (2062111-BLK1)</b>										
Prepared & Analyzed: 21-Jun-22										
Chloride	ND	16.0	mg/kg							
<b>LCS (2062111-BS1)</b>										
Prepared & Analyzed: 21-Jun-22										
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (2062111-BSD1)</b>										
Prepared & Analyzed: 21-Jun-22										
Chloride	400	16.0	mg/kg	400		100	80-120	3.92	20	

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2062003 - Volatiles****Blank (2062003-BLK1)**

Prepared &amp; Analyzed: 20-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		99.7	69.9-140			

**LCS (2062003-BS1)**

Prepared &amp; Analyzed: 20-Jun-22

Benzene	1.88	0.050	mg/kg	2.00		94.1	83.4-122			
Toluene	1.89	0.050	mg/kg	2.00		94.6	84.2-126			
Ethylbenzene	1.81	0.050	mg/kg	2.00		90.4	84.2-121			
m,p-Xylene	3.81	0.100	mg/kg	4.00		95.2	89.9-126			
o-Xylene	1.81	0.050	mg/kg	2.00		90.5	84.3-123			
Total Xylenes	5.62	0.150	mg/kg	6.00		93.7	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0478		mg/kg	0.0500		95.6	69.9-140			

**LCS Dup (2062003-BSD1)**

Prepared &amp; Analyzed: 20-Jun-22

Benzene	1.90	0.050	mg/kg	2.00		94.8	83.4-122	0.751	12.6	
Toluene	1.90	0.050	mg/kg	2.00		95.2	84.2-126	0.552	13.3	
Ethylbenzene	1.83	0.050	mg/kg	2.00		91.5	84.2-121	1.25	13.9	
m,p-Xylene	3.86	0.100	mg/kg	4.00		96.4	89.9-126	1.23	13.6	
o-Xylene	1.86	0.050	mg/kg	2.00		92.8	84.3-123	2.44	14.1	
Total Xylenes	5.71	0.150	mg/kg	6.00		95.2	89.1-124	1.62	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0472		mg/kg	0.0500		94.5	69.9-140			

**Batch 2062004 - Volatiles****Blank (2062004-BLK1)**

Prepared: 20-Jun-22 Analyzed: 21-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2062004 - Volatiles****Blank (2062004-BLK1)**

Prepared: 20-Jun-22 Analyzed: 21-Jun-22

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		98.7	69.9-140			

**LCS (2062004-BS1)**

Prepared: 20-Jun-22 Analyzed: 21-Jun-22

Benzene	1.86	0.050	mg/kg	2.00		93.0	83.4-122			
Toluene	1.87	0.050	mg/kg	2.00		93.4	84.2-126			
Ethylbenzene	1.79	0.050	mg/kg	2.00		89.5	84.2-121			
m,p-Xylene	3.78	0.100	mg/kg	4.00		94.6	89.9-126			
o-Xylene	1.81	0.050	mg/kg	2.00		90.3	84.3-123			
Total Xylenes	5.59	0.150	mg/kg	6.00		93.1	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0480		mg/kg	0.0500		95.9	69.9-140			

**LCS Dup (2062004-BSD1)**

Prepared: 20-Jun-22 Analyzed: 21-Jun-22

Benzene	1.92	0.050	mg/kg	2.00		96.1	83.4-122	3.29	12.6	
Toluene	1.93	0.050	mg/kg	2.00		96.6	84.2-126	3.27	13.3	
Ethylbenzene	1.85	0.050	mg/kg	2.00		92.4	84.2-121	3.19	13.9	
m,p-Xylene	3.92	0.100	mg/kg	4.00		97.9	89.9-126	3.51	13.6	
o-Xylene	1.88	0.050	mg/kg	2.00		93.8	84.3-123	3.80	14.1	
Total Xylenes	5.79	0.150	mg/kg	6.00		96.6	89.1-124	3.61	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0482		mg/kg	0.0500		96.5	69.9-140			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
03-Oct-22 09:01

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2062007 - General Prep - Organics****Blank (2062007-BLK1)**

Prepared &amp; Analyzed: 20-Jun-22

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
<i>Surrogate: 1-Chlorooctane</i>	49.8		mg/kg	50.0		99.6	66.9-136			
<i>Surrogate: 1-Chlorooctadecane</i>	55.3		mg/kg	50.0		111	59.5-142			

**LCS (2062007-BS1)**

Prepared &amp; Analyzed: 20-Jun-22

GRO C6-C10	173	10.0	mg/kg	200		86.6	78.5-128			
DRO >C10-C28	167	10.0	mg/kg	200		83.7	75.8-135			
Total TPH C6-C28	341	10.0	mg/kg	400		85.1	81.5-127			
<i>Surrogate: 1-Chlorooctane</i>	55.5		mg/kg	50.0		111	66.9-136			
<i>Surrogate: 1-Chlorooctadecane</i>	60.1		mg/kg	50.0		120	59.5-142			

**LCS Dup (2062007-BSD1)**

Prepared &amp; Analyzed: 20-Jun-22

GRO C6-C10	180	10.0	mg/kg	200		90.0	78.5-128	3.87	21.4	
DRO >C10-C28	184	10.0	mg/kg	200		92.2	75.8-135	9.72	17.9	
Total TPH C6-C28	364	10.0	mg/kg	400		91.1	81.5-127	6.79	17.6	
<i>Surrogate: 1-Chlorooctane</i>	54.8		mg/kg	50.0		110	66.9-136			
<i>Surrogate: 1-Chlorooctadecane</i>	58.6		mg/kg	50.0		117	59.5-142			

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**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

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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

Company Name: Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																			
Project Manager: <i>Lance Crenshaw</i>				P.O. #:				Chloride TPH (8015M) BTEX (8021B)																			
Address: P.O. Box 301				Company: <i>Newbourne</i>																							
City: Lovington		State: NM		Zip: 88260		Attn: <i>Robbie Runnels</i>																					
Phone #: (575) 396-2378		Fax #: (575) 396-1429		Address:																							
Project #: <i>16039</i>		Project Owner:		City:																							
Project Name: <i>Paduca 6 SWD #1.</i>				State:														Zip:									
Project Location:				Phone #:																							
Sampler Name: <i>Aaron Fios</i>				Fax #:																							
FOR LAB USE ONLY																											
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX												PRESERV.		SAMPLING							
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME													
<i>H222609</i>																											
	<i>1</i>	<i>FS</i>	<i>10.</i>	<i>@ 2F</i>		<i>X</i>							<i>6-17-22</i>		<i>X</i>	<i>X</i>	<i>X</i>										
	<i>2</i>	<i>FS</i>	<i>11.</i>	<i>@ 2F</i>																							
	<i>3</i>	<i>FS</i>	<i>12.</i>	<i>@ 2F</i>																							
<i>*</i>	<i>4</i>	<i>FS</i>	<i>13.</i>	<i>@ 2F 4'</i>																							
<i>*</i>	<i>5</i>	<i>FS</i>	<i>14.</i>	<i>@ 2F 4'</i>																							
<i>*</i>	<i>6</i>	<i>FS</i>	<i>15.</i>	<i>@ 2F 4'</i>																							
<i>*</i>	<i>7</i>	<i>FS</i>	<i>16.</i>	<i>@ 2F 4'</i>																							
	<i>8</i>	<i>FS</i>	<i>17.</i>	<i>@ 2F</i>																							
	<i>9</i>	<i>FS</i>	<i>53.</i>	<i>@ 4F</i>																							
	<i>10</i>	<i>FS</i>	<i>54.</i>	<i>@ 4F</i>																							
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Relinquished By: <i>Aaron Fios</i>				Date: <i>6-17-22</i>		Received By: <i>Jamara [Signature]</i>				Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:															
				Time: <i>1540</i>						Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:															
Relinquished By:				Date:		Received By:				REMARKS: <i>* Customer Depth change Requested To 9/30/22</i>																	
				Time:						Please email results to pm@etechenv.com.																	
Delivered By: (Circle One)				<i>5.9c</i> C-0.5c		Sample Condition		CHECKED BY: (Initials)																			
<input checked="" type="radio"/> Sampler - UPS - Bus - Other:				<i>54c #113</i>		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		<i>VF</i>																			
						Yes <input type="checkbox"/> No <input type="checkbox"/>																					



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June 24, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/20/22 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://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.

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:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: TT - @ 12' (H222634-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>256</b>	16.0	06/21/2022	ND	432	108	400	7.69	

**Sample ID: 55 @ 5" (H222634-02)**

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	06/22/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/22/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/22/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/22/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>432</b>	16.0	06/21/2022	ND	432	108	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	06/22/2022	ND	179	89.6	200	3.38	
DRO >C10-C28*	<10.0	10.0	06/22/2022	ND	182	91.2	200	5.35	
EXT DRO >C28-C36	<10.0	10.0	06/22/2022	ND					

Surrogate: 1-Chlorooctane 75.2 % 66.9-136

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 06/20/2022  
 Reported: 06/24/2022  
 Project Name: PADUCA 6 SWD #1  
 Project Number: 16039  
 Project Location: MEWBOURNE - LEA CO NM

Sampling Date: 06/20/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: 55 @ 5" (H222634-02)**

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Surrogate: 1-Chlorooctadecane	80.6 %	59.5-142								

Cardinal Laboratories

\*=Accredited Analyte

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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:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: 56 @ 5" (H222634-03)**

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	06/22/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/22/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/22/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/22/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	06/21/2022	ND	432	108	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	06/22/2022	ND	179	89.6	200	3.38	
DRO >C10-C28*	<10.0	10.0	06/22/2022	ND	182	91.2	200	5.35	
EXT DRO >C28-C36	<10.0	10.0	06/22/2022	ND					

Surrogate: 1-Chlorooctane 73.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 78.8 % 59.5-142

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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:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: 57 @ 5" (H222634-04)**

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	06/22/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/22/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/22/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/22/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	06/21/2022	ND	432	108	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	06/23/2022	ND	179	89.6	200	3.38	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	182	91.2	200	5.35	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 73.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 80.3 % 59.5-142

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**Analytical Results For:**

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

Received:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: 58 @ 5" (H222634-05)**

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	06/22/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/22/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/22/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/22/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	06/21/2022	ND	432	108	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	06/22/2022	ND	179	89.6	200	3.38	
DRO >C10-C28*	<10.0	10.0	06/22/2022	ND	182	91.2	200	5.35	
EXT DRO >C28-C36	<10.0	10.0	06/22/2022	ND					

Surrogate: 1-Chlorooctane 74.8 % 66.9-136

Surrogate: 1-Chlorooctadecane 79.4 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: WWS 2. (H222634-06)**

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	06/22/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/22/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/22/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/22/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2760	16.0	06/21/2022	ND	432	108	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	06/22/2022	ND	173	86.5	200	4.75	
DRO >C10-C28*	<10.0	10.0	06/22/2022	ND	164	82.2	200	8.26	
EXT DRO >C28-C36	<10.0	10.0	06/22/2022	ND					

Surrogate: 1-Chlorooctane 72.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 73.7 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: WWS 3. (H222634-07)**

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	06/22/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/22/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/22/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/22/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/22/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/21/2022	ND	432	108	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	06/22/2022	ND	173	86.5	200	4.75	
DRO >C10-C28*	<10.0	10.0	06/22/2022	ND	164	82.2	200	8.26	
EXT DRO >C28-C36	<10.0	10.0	06/22/2022	ND					

Surrogate: 1-Chlorooctane 83.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 87.5 % 59.5-142

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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:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: WWS 4. (H222634-08)**

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	06/23/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/23/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>112</b>	16.0	06/22/2022	ND	432	108	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/22/2022	ND	173	86.5	200	4.75		
DRO >C10-C28*	<10.0	10.0	06/22/2022	ND	164	82.2	200	8.26		
EXT DRO >C28-C36	<10.0	10.0	06/22/2022	ND						

Surrogate: 1-Chlorooctane 65.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 66.7 % 59.5-142

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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:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: EWS 5. (H222634-09)**

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	06/23/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/23/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/22/2022	ND	432	108	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	06/22/2022	ND	173	86.5	200	4.75	
DRO >C10-C28*	<10.0	10.0	06/22/2022	ND	164	82.2	200	8.26	
EXT DRO >C28-C36	<10.0	10.0	06/22/2022	ND					

Surrogate: 1-Chlorooctane 73.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 78.0 % 59.5-142

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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:	06/20/2022	Sampling Date:	06/20/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	Cool & Intact
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: EWS 6. (H222634-10)**

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	06/23/2022	ND	1.93	96.7	2.00	0.848	
Toluene*	<0.050	0.050	06/23/2022	ND	2.00	100	2.00	2.49	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	1.95	97.5	2.00	1.32	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	5.79	96.5	6.00	0.950	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/22/2022	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	06/22/2022	ND	173	86.5	200	4.75	
DRO >C10-C28*	<10.0	10.0	06/22/2022	ND	164	82.2	200	8.26	
EXT DRO >C28-C36	<10.0	10.0	06/22/2022	ND					

Surrogate: 1-Chlorooctane 70.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 74.4 % 59.5-142

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Notes and Definitions

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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager





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

---

June 24, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/21/22 16:14.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://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:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 59. @ 4' (H222651-01)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/23/2022	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 84.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 81.5 % 59.5-142

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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:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 60. @ 5" (H222651-02)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/23/2022	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 73.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 73.1 % 59.5-142

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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:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 61. @ 5" (H222651-03)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/23/2022	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 78.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 79.6 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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 LANCE CRENSHAW  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 62. @ 5" (H222651-04)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/23/2022	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 80.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 79.3 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 63. @ 4' (H222651-05)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/23/2022	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 85.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 83.6 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 64. @ 4' (H222651-06)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/23/2022	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 88.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 90.9 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 65. @ 4' (H222651-07)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	06/23/2022	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 81.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 83.2 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: FS 66. @ 4' (H222651-08)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	06/23/2022	ND	416	104	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 85.8 % 66.9-136

Surrogate: 1-Chlorooctadecane 86.7 % 59.5-142

Cardinal Laboratories

\*=Accredited Analyte

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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:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: ESW 7. (H222651-09)**

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	06/23/2022	ND	2.20	110	2.00	11.2	
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5	
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2	
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4	
Total BTEX	<0.300	0.300	06/23/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>240</b>	16.0	06/23/2022	ND	416	104	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	06/23/2022	ND	199	99.5	200	2.87	
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86	
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND					

Surrogate: 1-Chlorooctane 91.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 91.4 % 59.5-142

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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:	06/21/2022	Sampling Date:	06/21/2022
Reported:	06/24/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: ESW 8. (H222651-10)**

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	06/23/2022	ND	2.20	110	2.00	11.2		
Toluene*	<0.050	0.050	06/23/2022	ND	2.16	108	2.00	11.5		
Ethylbenzene*	<0.050	0.050	06/23/2022	ND	2.12	106	2.00	11.2		
Total Xylenes*	<0.150	0.150	06/23/2022	ND	6.56	109	6.00	10.4		
Total BTEX	<0.300	0.300	06/23/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	06/23/2022	ND	416	104	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	06/23/2022	ND	199	99.5	200	2.87		
DRO >C10-C28*	<10.0	10.0	06/23/2022	ND	194	97.0	200	3.86		
EXT DRO >C28-C36	<10.0	10.0	06/23/2022	ND						

Surrogate: 1-Chlorooctane 84.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 84.7 % 59.5-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

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

Company Name: Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>													
Project Manager: <i>Loree Cronshaw</i>				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (8015M)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (8021B)</div> </div>													
Address: P.O. Box 301				Company: <i>Meubourne</i>																	
City: Lovington		State: NM		Zip: 88260		Attn: <i>Robbie Runnels</i>															
Phone #: (575) 396-2378		Fax #: (575) 396-1429		Address:																	
Project #: <i>16039</i>		Project Owner:		City:																	
Project Name: <i>Paduca 6 SWD#1</i>				State:		Zip:															
Project Location:				Phone #:																	
Sampler Name: <i>Jason Rios</i>				Fax #:																	
FOR LAB USE ONLY																					
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX												PRESERV.		SAMPLING	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME							
<i>H2221051</i>																					
<i>1</i>	<i>FS</i>	<i>59.</i>	<i>@ 4 FT</i>	<i>X</i>		<i>X</i>							<i>6-21-22</i>								
<i>2</i>	<i>FS</i>	<i>60.</i>	<i>@ 5 inches</i>	<i>X</i>		<i>X</i>															
<i>3</i>	<i>FS</i>	<i>61.</i>	<i>@ 5 inches</i>	<i>X</i>		<i>X</i>															
<i>4</i>	<i>FS</i>	<i>62.</i>	<i>@ 5 inches</i>	<i>X</i>		<i>X</i>															
<i>5</i>	<i>FS</i>	<i>63.</i>	<i>@ 4 FT</i>	<i>X</i>		<i>X</i>															
<i>6</i>	<i>FS</i>	<i>64.</i>	<i>@ 4 FT</i>	<i>X</i>		<i>X</i>															
<i>7</i>	<i>FS</i>	<i>65.</i>	<i>@ 4 FT</i>	<i>X</i>		<i>X</i>															
<i>8</i>	<i>FS</i>	<i>66.</i>	<i>@ 4 FT</i>	<i>X</i>		<i>X</i>															
<i>9</i>	<i>EWS</i>	<i>7.</i>		<i>X</i>																	
<i>10</i>	<i>EWS</i>	<i>8.</i>		<i>X</i>																	

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Relinquished By: <i>Jason Rios</i>	Date: <i>6-21-22</i>	Received By: <i>Sofia Kromer</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) <i>UPS</i>	<i>13.7°C - 0.5°C</i>	Sample Condition	CHECKED BY: <i>SR</i>	
<i>13.2°C</i>		Cool Intact		
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

REMARKS: Please email results to pm@etechenv.com.



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

June 29, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/23/22 16:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
29-Jun-22 10:04

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PS 1 @ 0-6"	H222703-01	Soil	23-Jun-22 00:00	23-Jun-22 16:05
PS 2 @ 0-6"	H222703-02	Soil	23-Jun-22 00:00	23-Jun-22 16:05
PS 3 @ 0-6"	H222703-03	Soil	23-Jun-22 00:00	23-Jun-22 16:05
PS 4 @ 0-6"	H222703-04	Soil	23-Jun-22 00:00	23-Jun-22 16:05
PS 5 @ 0-6"	H222703-05	Soil	23-Jun-22 00:00	23-Jun-22 16:05
NWS 2.	H222703-06	Soil	23-Jun-22 00:00	23-Jun-22 16:05
WWS 5.	H222703-07	Soil	23-Jun-22 00:00	23-Jun-22 16:05
WWS 6.	H222703-08	Soil	23-Jun-22 00:00	23-Jun-22 16:05
WWS 7.	H222703-09	Soil	23-Jun-22 00:00	23-Jun-22 16:05
WWS 8.	H222703-10	Soil	23-Jun-22 00:00	23-Jun-22 16:05
FS 67 @ 4'	H222703-11	Soil	23-Jun-22 00:00	23-Jun-22 16:05
FS 68 @ 4'	H222703-12	Soil	23-Jun-22 00:00	23-Jun-22 16:05
FS 69 @ 4'	H222703-13	Soil	23-Jun-22 00:00	23-Jun-22 16:05
FS 70 @ 4'	H222703-14	Soil	23-Jun-22 00:00	23-Jun-22 16:05
EWS 9	H222703-15	Soil	23-Jun-22 00:00	23-Jun-22 16:05
EWS 10	H222703-16	Soil	23-Jun-22 00:00	23-Jun-22 16:05

06/29/22 - Client added depths to samaples -01 to -05 on 06/28/22 (See COC). This is the revised report and will replace the one sent on 06/27/22.

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**PS 1 @ 0-6"  
H222703-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>9200</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-Cl-B	QM-07
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			97.8 %		69.9-140	2062404	JH/	25-Jun-22	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>46.4</b>		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>14.7</b>		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
Surrogate: 1-Chlorooctane			123 %		43-149	2062419	MS	25-Jun-22	8015B	
Surrogate: 1-Chlorooctadecane			146 %		42.5-161	2062419	MS	25-Jun-22	8015B	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
29-Jun-22 10:04

**PS 2 @ 0-6"**  
**H222703-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	4080		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062404	JH/	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062404	JH/	25-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.7 %		69.9-140	2062404	JH/	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

Surrogate: 1-Chlorooctane			123 %		43-149	2062419	MS	25-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			153 %		42.5-161	2062419	MS	25-Jun-22	8015B	
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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
29-Jun-22 10:04

**PS 3 @ 0-6"**  
**H222703-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>22000</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %		69.9-140	2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>74.3</b>		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>21.2</b>		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			134 %		43-149	2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			160 %		42.5-161	2062419	MS	25-Jun-22	8015B	
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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
29-Jun-22 10:04

**PS 4 @ 0-6"**  
**H222703-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>13200</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			99.6 %		69.9-140	2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>14.0</b>		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			131 %		43-149	2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			158 %		42.5-161	2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
29-Jun-22 10:04

**PS 5 @ 0-6"**  
**H222703-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>11000</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			114 %	43-149		2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			141 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**NWS 2.**

**H222703-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>128</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %		69.9-140	2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			109 %		43-149	2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			134 %		42.5-161	2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**WWS 5.  
H222703-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			130 %	43-149		2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			161 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**WWS 6.  
H222703-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			121 %	43-149		2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			150 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**WWS 7.  
H222703-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	336		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			98.1 %		69.9-140	2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

Surrogate: 1-Chlorooctane			112 %		43-149	2062419	MS	25-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			138 %		42.5-161	2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**WWS 8.  
H222703-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	320		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

Surrogate: 1-Chlorooctane			104 %	43-149		2062419	MS	25-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			128 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**FS 67 @ 4'  
H222703-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>400</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			112 %	43-149		2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			136 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**FS 68 @ 4'**  
**H222703-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>400</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			102 %	43-149		2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			126 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**FS 69 @ 4'**  
**H222703-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>400</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			98.0 %	43-149		2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			121 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**FS 70 @ 4'  
H222703-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>368</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			105 %	43-149		2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			129 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
29-Jun-22 10:04

**EWS 9****H222703-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

Chloride	64.0		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			99.5 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

Surrogate: 1-Chlorooctane			108 %	43-149		2062419	MS	25-Jun-22	8015B	
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Surrogate: 1-Chlorooctadecane			132 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**EWS 10  
H222703-16 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	2062707	GM	27-Jun-22	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2062405	JH	25-Jun-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2062405	JH	25-Jun-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	69.9-140		2062405	JH	25-Jun-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2062419	MS	25-Jun-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			105 %	43-149		2062419	MS	25-Jun-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			130 %	42.5-161		2062419	MS	25-Jun-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2062707 - 1:4 DI Water</b>										
<b>Blank (2062707-BLK1)</b>										
Prepared & Analyzed: 27-Jun-22										
Chloride	ND	16.0	mg/kg							
<b>LCS (2062707-BS1)</b>										
Prepared & Analyzed: 27-Jun-22										
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (2062707-BSD1)</b>										
Prepared & Analyzed: 27-Jun-22										
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
29-Jun-22 10:04

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2062404 - Volatiles****Blank (2062404-BLK1)**

Prepared: 24-Jun-22 Analyzed: 25-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0506		mg/kg	0.0500		101	69.9-140			

**LCS (2062404-BS1)**

Prepared: 24-Jun-22 Analyzed: 27-Jun-22

Benzene	1.97	0.050	mg/kg	2.00		98.4	83.4-122			
Toluene	1.95	0.050	mg/kg	2.00		97.5	84.2-126			
Ethylbenzene	1.89	0.050	mg/kg	2.00		94.5	84.2-121			
m,p-Xylene	3.96	0.100	mg/kg	4.00		99.1	89.9-126			
o-Xylene	1.88	0.050	mg/kg	2.00		94.2	84.3-123			
Total Xylenes	5.85	0.150	mg/kg	6.00		97.5	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0487		mg/kg	0.0500		97.4	69.9-140			

**LCS Dup (2062404-BSD1)**

Prepared: 24-Jun-22 Analyzed: 25-Jun-22

Benzene	2.11	0.050	mg/kg	2.00		106	83.4-122	7.17	12.6	
Toluene	2.09	0.050	mg/kg	2.00		104	84.2-126	6.84	13.3	
Ethylbenzene	2.03	0.050	mg/kg	2.00		101	84.2-121	6.94	13.9	
m,p-Xylene	4.25	0.100	mg/kg	4.00		106	89.9-126	6.91	13.6	
o-Xylene	2.03	0.050	mg/kg	2.00		101	84.3-123	7.32	14.1	
Total Xylenes	6.27	0.150	mg/kg	6.00		105	89.1-124	7.04	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0493		mg/kg	0.0500		98.7	69.9-140			

**Batch 2062405 - Volatiles****Blank (2062405-BLK1)**

Prepared: 24-Jun-22 Analyzed: 25-Jun-22

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: PADUCA 6 SWD #1  
Project Number: 16039  
Project Manager: LANCE CRENSHAW  
Fax To:

Reported:  
29-Jun-22 10:04

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2062405 - Volatiles****Blank (2062405-BLK1)**

Prepared: 24-Jun-22 Analyzed: 25-Jun-22

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0504		mg/kg	0.0500		101	69.9-140			

**LCS (2062405-BS1)**

Prepared: 24-Jun-22 Analyzed: 25-Jun-22

Benzene	2.04	0.050	mg/kg	2.00		102	83.4-122			
Toluene	2.01	0.050	mg/kg	2.00		100	84.2-126			
Ethylbenzene	1.95	0.050	mg/kg	2.00		97.6	84.2-121			
m,p-Xylene	3.88	0.100	mg/kg	4.00		97.0	89.9-126			
o-Xylene	1.87	0.050	mg/kg	2.00		93.3	84.3-123			
Total Xylenes	5.75	0.150	mg/kg	6.00		95.8	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0500		mg/kg	0.0500		100	69.9-140			

**LCS Dup (2062405-BSD1)**

Prepared: 24-Jun-22 Analyzed: 25-Jun-22

Benzene	2.03	0.050	mg/kg	2.00		101	83.4-122	0.655	12.6	
Toluene	2.02	0.050	mg/kg	2.00		101	84.2-126	0.690	13.3	
Ethylbenzene	1.96	0.050	mg/kg	2.00		98.0	84.2-121	0.399	13.9	
m,p-Xylene	3.91	0.100	mg/kg	4.00		97.8	89.9-126	0.763	13.6	
o-Xylene	1.90	0.050	mg/kg	2.00		95.1	84.3-123	1.82	14.1	
Total Xylenes	5.81	0.150	mg/kg	6.00		96.9	89.1-124	1.11	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0506		mg/kg	0.0500		101	69.9-140			

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Etech Environmental & Safety Solutions 2617 W MARLAND HOBBS NM, 88240	Project: PADUCA 6 SWD #1 Project Number: 16039 Project Manager: LANCE CRENSHAW Fax To:	Reported: 29-Jun-22 10:04
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2062419 - General Prep - Organics**

<b>Blank (2062419-BLK1)</b>		Prepared & Analyzed: 24-Jun-22								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	60.2		mg/kg	50.0		120	43-149			
Surrogate: 1-Chlorooctadecane	73.7		mg/kg	50.0		147	42.5-161			

<b>LCS (2062419-BS1)</b>		Prepared & Analyzed: 24-Jun-22								
GRO C6-C10	207	10.0	mg/kg	200		104	78.5-128			
DRO >C10-C28	216	10.0	mg/kg	200		108	75.8-135			
Total TPH C6-C28	423	10.0	mg/kg	400		106	81.5-127			
Surrogate: 1-Chlorooctane	63.4		mg/kg	50.0		127	43-149			
Surrogate: 1-Chlorooctadecane	78.4		mg/kg	50.0		157	42.5-161			

<b>LCS Dup (2062419-BSD1)</b>		Prepared & Analyzed: 24-Jun-22								
GRO C6-C10	203	10.0	mg/kg	200		101	78.5-128	2.08	21.4	
DRO >C10-C28	214	10.0	mg/kg	200		107	75.8-135	0.895	17.9	
Total TPH C6-C28	417	10.0	mg/kg	400		104	81.5-127	1.47	17.6	
Surrogate: 1-Chlorooctane	62.7		mg/kg	50.0		125	43-149			
Surrogate: 1-Chlorooctadecane	77.6		mg/kg	50.0		155	42.5-161			

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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

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**

<b>Company Name:</b> Etech Environmental & Safety Solutions, Inc.		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>									
<b>Project Manager:</b> <i>Jane Crosslow</i>		P.O. #:		Chloride TPH (8016M) BTEX (8021B)									
<b>Address:</b> P.O. Box 301		Company: <i>Newbourn</i>											
<b>City:</b> Lovington <b>State:</b> NM <b>Zip:</b> 88260		Attn: <i>Robbie Runnels</i>											
<b>Phone #:</b> (575) 396-2378 <b>Fax #:</b> (575) 396-1429		Address:											
<b>Project #:</b> <i>16039</i> <b>Project Owner:</b>		City:											
<b>Project Name:</b> <i>Paduca 6 SWD #1</i>		State:      Zip:											
<b>Project Location:</b>		Phone #:											
<b>Sampler Name:</b> <i>Aaron RBS</i>		Fax #:											

FOR LAB USE ONLY		Lab I.D.	Sample I.D.	(GRAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.			SAMPLING		DATE	TIME	Chloride	TPH (8016M)	BTEX (8021B)	
GROUNDWATER	WASTEWATER					SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME							
<i>H222703</i>																					
<i>11</i>	<i>FS</i>	<i>69</i>	<i>Ⓞ 4FF</i>	<i>X</i>		<i>X</i>					<i>X</i>			<i>6-23-22</i>	<i>AR</i>	<i>X</i>	<i>X</i>	<i>X</i>			
<i>12</i>	<i>FS</i>	<i>68</i>	<i>Ⓞ 4FF</i>	<i>X</i>		<i>Y</i>					<i>X</i>			<i>6-23-22</i>		<i>X</i>	<i>X</i>	<i>X</i>			
<i>13</i>	<i>FS</i>	<i>69</i>	<i>Ⓞ 4FF</i>	<i>X</i>		<i>X</i>					<i>X</i>					<i>X</i>	<i>X</i>	<i>X</i>			
<i>14</i>	<i>FS</i>	<i>70</i>	<i>Ⓞ 4FF</i>	<i>X</i>		<i>X</i>					<i>X</i>					<i>X</i>	<i>X</i>	<i>X</i>			
<i>15</i>	<i>EWS</i>	<i>9</i>		<i>X</i>		<i>Y</i>					<i>X</i>					<i>X</i>	<i>X</i>	<i>X</i>			
<i>16</i>	<i>EWS</i>	<i>10</i>		<i>X</i>		<i>X</i>					<i>X</i>					<i>X</i>	<i>X</i>	<i>X</i>			
<i>AR</i>	<i>[blacked out]</i>	<i>[blacked out]</i>		<i>[blacked out]</i>		<i>[blacked out]</i>					<i>[blacked out]</i>					<i>[blacked out]</i>	<i>[blacked out]</i>	<i>[blacked out]</i>			
<i>AR</i>	<i>[blacked out]</i>	<i>[blacked out]</i>		<i>[blacked out]</i>		<i>[blacked out]</i>					<i>[blacked out]</i>					<i>[blacked out]</i>	<i>[blacked out]</i>	<i>[blacked out]</i>			

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<b>Relinquished By:</b> <i>Aaron RBS</i>	<b>Date:</b> <i>6-23-22</i>	<b>Received By:</b> <i>Shad Rigney</i>	<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Add'l Phone #:</b>
<b>Relinquished By:</b>	<b>Date:</b>	<b>Received By:</b>	<b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Add'l Fax #:</b>
<b>Delivered By: (Circle One)</b> <i>Sampler</i> - UPS - Bus - Other:	<i>2-9:00 C-0.5:0</i>	<b>Sample Condition</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>CHECKED BY:</b> (Initials) <i>SR</i>	
	<i>2-4:00 #113</i>		Please email results to pm@etechenv.com.	



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June 29, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/27/22 16:36.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://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".

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:	06/27/2022	Sampling Date:	06/27/2022
Reported:	06/29/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: NWS 3. (H222744-01)**

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	06/28/2022	ND	2.06	103	2.00	3.57	
Toluene*	<0.050	0.050	06/28/2022	ND	2.05	102	2.00	4.49	
Ethylbenzene*	<0.050	0.050	06/28/2022	ND	2.07	103	2.00	3.53	
Total Xylenes*	<0.150	0.150	06/28/2022	ND	6.28	105	6.00	4.04	
Total BTEX	<0.300	0.300	06/28/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.9-140

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	06/28/2022	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	06/28/2022	ND	229	114	200	0.636	
DRO >C10-C28*	<10.0	10.0	06/28/2022	ND	229	115	200	0.471	
EXT DRO >C28-C36	<10.0	10.0	06/28/2022	ND					

Surrogate: 1-Chlorooctane 84.3 % 43-149

Surrogate: 1-Chlorooctadecane 95.1 % 42.5-161

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/27/2022	Sampling Date:	06/27/2022
Reported:	06/29/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: PS 6. (H222744-02)**

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	06/28/2022	ND	2.06	103	2.00	3.57	
Toluene*	<0.050	0.050	06/28/2022	ND	2.05	102	2.00	4.49	
Ethylbenzene*	<0.050	0.050	06/28/2022	ND	2.07	103	2.00	3.53	
Total Xylenes*	<0.150	0.150	06/28/2022	ND	6.28	105	6.00	4.04	
Total BTEX	<0.300	0.300	06/28/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>18400</b>	16.0	06/28/2022	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	06/28/2022	ND	229	114	200	0.636	
<b>DRO &gt;C10-C28*</b>	<b>74.2</b>	10.0	06/28/2022	ND	229	115	200	0.471	
<b>EXT DRO &gt;C28-C36</b>	<b>25.4</b>	10.0	06/28/2022	ND					

Surrogate: 1-Chlorooctane 92.6 % 43-149

Surrogate: 1-Chlorooctadecane 100 % 42.5-161

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**Analytical Results For:**

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

Received:	06/27/2022	Sampling Date:	06/27/2022
Reported:	06/29/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: PS 7. (H222744-03)**

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	06/28/2022	ND	2.06	103	2.00	3.57	
Toluene*	<0.050	0.050	06/28/2022	ND	2.05	102	2.00	4.49	
Ethylbenzene*	<0.050	0.050	06/28/2022	ND	2.07	103	2.00	3.53	
Total Xylenes*	<0.150	0.150	06/28/2022	ND	6.28	105	6.00	4.04	
Total BTEX	<0.300	0.300	06/28/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>11600</b>	16.0	06/28/2022	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	06/28/2022	ND	229	114	200	0.636	
<b>DRO &gt;C10-C28*</b>	<b>63.8</b>	10.0	06/28/2022	ND	229	115	200	0.471	
<b>EXT DRO &gt;C28-C36</b>	<b>28.7</b>	10.0	06/28/2022	ND					

Surrogate: 1-Chlorooctane 83.6 % 43-149

Surrogate: 1-Chlorooctadecane 92.2 % 42.5-161

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	06/27/2022	Sampling Date:	06/27/2022
Reported:	06/29/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: WWS 9. (H222744-04)**

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	06/28/2022	ND	2.06	103	2.00	3.57	
Toluene*	<0.050	0.050	06/28/2022	ND	2.05	102	2.00	4.49	
Ethylbenzene*	<0.050	0.050	06/28/2022	ND	2.07	103	2.00	3.53	
Total Xylenes*	<0.150	0.150	06/28/2022	ND	6.28	105	6.00	4.04	
Total BTEX	<0.300	0.300	06/28/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	06/28/2022	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	06/28/2022	ND	229	114	200	0.636	
DRO >C10-C28*	<10.0	10.0	06/28/2022	ND	229	115	200	0.471	
EXT DRO >C28-C36	<10.0	10.0	06/28/2022	ND					

Surrogate: 1-Chlorooctane 88.5 % 43-149

Surrogate: 1-Chlorooctadecane 101 % 42.5-161

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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:	06/27/2022	Sampling Date:	06/27/2022
Reported:	06/29/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: WWS 10. (H222744-05)**

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	06/28/2022	ND	2.06	103	2.00	3.57	
Toluene*	<0.050	0.050	06/28/2022	ND	2.05	102	2.00	4.49	
Ethylbenzene*	<0.050	0.050	06/28/2022	ND	2.07	103	2.00	3.53	
Total Xylenes*	<0.150	0.150	06/28/2022	ND	6.28	105	6.00	4.04	
Total BTEX	<0.300	0.300	06/28/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	06/28/2022	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	06/28/2022	ND	179	89.3	200	2.09	
<b>DRO &gt;C10-C28*</b>	<b>61.8</b>	10.0	06/28/2022	ND	169	84.7	200	3.06	
<b>EXT DRO &gt;C28-C36</b>	<b>35.6</b>	10.0	06/28/2022	ND					

Surrogate: 1-Chlorooctane 83.1 % 43-149

Surrogate: 1-Chlorooctadecane 89.8 % 42.5-161

Cardinal Laboratories

\*=Accredited Analyte

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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:	06/27/2022	Sampling Date:	06/27/2022
Reported:	06/29/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Shalyn Rodriguez
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: WWS 11. (H222744-06)**

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	06/28/2022	ND	2.12	106	2.00	0.205	
Toluene*	<0.050	0.050	06/28/2022	ND	2.09	105	2.00	0.671	
Ethylbenzene*	<0.050	0.050	06/28/2022	ND	2.07	104	2.00	0.117	
Total Xylenes*	<0.150	0.150	06/28/2022	ND	6.28	105	6.00	0.547	
Total BTEX	<0.300	0.300	06/28/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	06/28/2022	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	06/28/2022	ND	198	98.9	200	2.10	
<b>DRO &gt;C10-C28*</b>	<b>118</b>	10.0	06/28/2022	ND	207	103	200	1.25	
<b>EXT DRO &gt;C28-C36</b>	<b>53.9</b>	10.0	06/28/2022	ND					

Surrogate: 1-Chlorooctane 85.3 % 43-149

Surrogate: 1-Chlorooctadecane 111 % 42.5-161

Cardinal Laboratories

\*=Accredited Analyte

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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

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\*=Accredited Analyte

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





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

---

June 29, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/28/22 16:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://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".

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:	06/28/2022	Sampling Date:	06/28/2022
Reported:	06/29/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: PS 3 @ 1' (H222769-01)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3760</b>	16.0	06/29/2022	ND	448	112	400	3.64	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**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

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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

Company Name: Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																		
Project Manager: <i>Lance Cranshaw</i>				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (8015M)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (8021B)</div> </div>																		
Address: P.O. Box 301				Company: <i>Mewbourne</i>																						
City: Lovington		State: NM		Zip: 88260		Attn: <i>Robbie Runnels</i>																				
Phone #: (575) 396-2378		Fax #: (575) 396-1429		Address:																						
Project #: <i>16039</i>		Project Owner:		City:																						
Project Name: <i>Paduca G. SWD #1</i>				State:		Zip:																				
Project Location:				Phone #:																						
Sampler Name: <i>Arson Rias</i>				Fax #:																						
FOR LAB USE ONLY																										
Lab I.D.		Sample I.D.		GRAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.		SAMPLING														
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME												
<i>H222769</i>		<i>1 PS 3 @ 1FT</i>		<i>X</i>	<i>X</i>								<i>6-28-22</i>		<i>X</i>											
<p><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></p>																										
Relinquished By: <i>[Signature]</i>				Date: <i>6-28-22</i>		Received By: <i>Jamara Oldakof</i>				Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:														
Relinquished By:				Time: <i>16:20</i>		Received By:				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:														
Date:				Time:		Date:				Time:		REMARKS:  Please email results to pm@etechenv.com.														
Delivered By: (Circle One) <i>27.8°C</i> <i>0-0.5°C</i>				Sample Condition		CHECKED BY: (Initials) <i>JO</i>																				
<i>Sampler</i> - UPS - Bus - Other:				<i>27.3°C #113</i>		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Yes <input type="checkbox"/> No <input type="checkbox"/>																



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

---

July 05, 2022

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: PADUCA 6 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 06/30/22 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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](http://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:	06/30/2022	Sampling Date:	06/30/2022
Reported:	07/05/2022	Sampling Type:	Soil
Project Name:	PADUCA 6 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	16039	Sample Received By:	Tamara Oldaker
Project Location:	MEWBOURNE - LEA CO NM		

**Sample ID: WWS B # 11. (H222818-01)**

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	07/01/2022	ND	210	105	200	2.17	
DRO >C10-C28*	<10.0	10.0	07/01/2022	ND	200	100	200	6.07	
EXT DRO >C28-C36	<10.0	10.0	07/01/2022	ND					
<hr/>									
Surrogate: 1-Chlorooctane	95.7 %	43-149							
Surrogate: 1-Chlorooctadecane	97.8 %	42.5-161							

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**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

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Celey D. Keene, Lab Director/Quality Manager



# **Appendix E**

## **Regulatory Correspondence**

**From:** [Lance Crenshaw](#)  
**To:** [Ben Arguijo](#)  
**Subject:** FW: [EXTERNAL] Mewbourne Oil Co – NGL Paduca– napp2213957876 sampling notice  
**Date:** Wednesday, June 22, 2022 3:21:59 PM

---

**From:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)>  
**Sent:** Wednesday, June 22, 2022 1:57 PM  
**To:** Lance Crenshaw <[lance@etechenv.com](mailto:lance@etechenv.com)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Harimon, Jocelyn, EMNRD <[Jocelyn.Harimon@state.nm.us](mailto:Jocelyn.Harimon@state.nm.us)>  
**Subject:** FW: [EXTERNAL] Mewbourne Oil Co – NGL Paduca– napp2213957876 sampling notice

Lance

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks  
Jennifer Nobui

---

**From:** Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>  
**Sent:** Wednesday, June 22, 2022 1:48 PM  
**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Harimon, Jocelyn, EMNRD <[Jocelyn.Harimon@state.nm.us](mailto:Jocelyn.Harimon@state.nm.us)>; Nobui, Jennifer, EMNRD <[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)>; Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>  
**Subject:** Fw: [EXTERNAL] Mewbourne Oil Co – NGL Paduca– napp2213957876 sampling notice

---

**From:** Lance Crenshaw <[lance@etechenv.com](mailto:lance@etechenv.com)>  
**Sent:** Wednesday, June 22, 2022 1:46 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>  
**Cc:** Robbie Runnels <[rrunnels@mewbourne.com](mailto:rrunnels@mewbourne.com)>; Connor Walker <[cwalker@mewbourne.com](mailto:cwalker@mewbourne.com)>; Joel Lowry <[joel@etechenv.com](mailto:joel@etechenv.com)>; Ben Arguijo <[ben@etechenv.com](mailto:ben@etechenv.com)>  
**Subject:** [EXTERNAL] Mewbourne Oil Co – NGL Paduca– napp2213957876 sampling notice

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

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

Mewbourne Oil Co – NGL Paduca– napp2213957876

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

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

---

Total Control Panel

[Login](#)

To: [lance@etechnv.com](mailto:lance@etechnv.com)

Message Score: 10

High (60): **Pass**

From: [jennifer.nobui@state.nm.us](mailto:jennifer.nobui@state.nm.us)

My Spam Blocking Level: High

Medium (75): **Pass**

Low (90): **Pass**

[Block](#) this sender

[Block](#) state.nm.us

*This message was delivered because the content filter score did not exceed your filter level.*

**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 149492

**CONDITIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 149492
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	10/25/2022