

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

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

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	nAPP2104354470
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	LOGOS Operating, LLC	OGRID	289408
Contact Name	Marie E. Florez	Contact Telephone	505-419-8420
Contact email	mflorez@logosresoucesllc.com	Incident # (assigned by OCD)	nAPP2104354470
Contact mailing address	2010 Afton Place, Farmington NM 87401		

### Location of Release Source

Latitude 36.5320892 Longitude -107.0992355  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Jicarilla 95 7B	Site Type	Well
Date Release Discovered	2/2/2021	API# (if applicable)	30-039-26854

Unit Letter	Section	Township	Range	County
F	36	27N	3W	Rio Arriba

Surface Owner:  State  Federal  Tribal  Private (Name: Jicarilla)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 1/4 bbls	Volume Recovered (bbls) 0
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

This release was from an oil dump line freeze that sprayed 1/4bbl from the separator. The surface owner (Jicarilla) requested to for LOGOS to remove the separator to clean historic staining under and around the separator. As Kelley Service's scraped and removed the staining, they was hauled off and disposed >20 yards at Envirotech land farm. The release was reported to NMOCD, per the calculations that if 12 yards filled a dump truck this equals 5bbls which than became reportable.

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
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: <u>Marie E. Florez</u> Title: <u>Regulatory Specialist</u> Signature: <u>Marie E. Florez</u> Date: <u>3/24/2021</u> email: <u>mflorez@logosresourcesllc.com</u> Telephone: <u>505-419-8420</u>
<b><u>OCD Only</u></b> Received by: _____ Date: _____

State of New Mexico  
Oil Conservation Division

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Printed Name: Marie E. Florez Title: Regulatory Specialist

Signature: Marie E. Florez Date: 3/24/2021

email: mflorez@logosresourcesllc.com Telephone: 505-419-8420

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nAPP2104354470
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## 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?	50 - 100 (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 checked="" type="checkbox"/> Yes <input 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 type="checkbox"/> Yes <input checked="" 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.

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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: Marie E. Florez Title: Regulatory Specialist  
 Signature: Marie E. Florez Date: 3/24/2021  
 email: mflorez@logosresourcesllc.com Telephone: 505-419-8420

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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: Jennifer Nobui Date: 02/08/2022  
 Printed Name: Jennifer Nobui Title: Environmental Specialist A



March 24, 2021

Cory Smith  
New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

**Incident # nAPP2104354470**

**API: 30-039-26854**

**Well Site: Jicarilla 95 7B Located in Unit F, Section 36, Township 27 North, Range 3 West, 1830 FNL & 1720 FWL, Rio Arriba New Mexico.**

**RE: On December 17, 2020, this release was discovered from an oil dump line freeze that sprayed 1/4bbl from the separator. The surface owner (Jicarilla) requested to for LOGOS to remove the separator to clean historic staining under and around the separator. As Kelley Service's scraped and removed the staining and hauled off and disposed >20 yards at Envirotech land farm. The release was reported to NMOCD, per the calculations that if 12 yards filled a dump truck this equals 5bbls which than became reportable.**

Dear Mr. Smith,

On December 17, 2020 LOGOS shoveled up the residue to clean the surface area off the ground. LOGOS employees were able to scoop up the snow where the affected area occurred and placed in the steel BGT. They also placed rags down on the wet area to soak up the spill.

Jicarilla (EPO) was contacted and on location during the remediation.

On January 29, 2021, Kelley Oilfield Services began remediation. See attached report from Envirotech for the rest of the work details.

Sincerely,

*Marie E. Florez*

Marie E. Florez  
Regulatory Specialist  
Cell: 505-419-8420  
Office: 505-787-2218  
[mflorez@logoesresourcesllc.com](mailto:mflorez@logoesresourcesllc.com)



**From:** [Smith, Cory, EMNRD](#)  
**To:** [Tamra Sessions](#); [Powell, Brandon, EMNRD](#)  
**Cc:** [Marie Florez](#); [Bryan Lovato](#); [Jason Meechan](#); [Keith Manwell-JIC EPO \(kcmanwell@yahoo.com\)](#)  
**Subject:** RE: Jicarilla 95 7B - Notification for Final Sampling - Variance Request  
**Date:** Wednesday, February 3, 2021 11:10:10 AM  
**Attachments:** [image001.jpg](#)

---

Tamera,

Sounds good keep me in the loop.

Thanks

**Cory Smith** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1000 Rio Brazos | Aztec, NM 87410  
505.334.6178 x115 | [Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Tamra Sessions <[tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)>  
**Sent:** Wednesday, February 3, 2021 10:49 AM  
**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>  
**Cc:** Marie Florez <[mflorez@logosresourcesllc.com](mailto:mflorez@logosresourcesllc.com)>; Bryan Lovato <[blovato@logosresourcesllc.com](mailto:blovato@logosresourcesllc.com)>; Jason Meechan <[jmeechan@logosresourcesllc.com](mailto:jmeechan@logosresourcesllc.com)>; Keith Manwell-JIC EPO (kcmanwell@yahoo.com) <[kcmanwell@yahoo.com](mailto:kcmanwell@yahoo.com)>  
**Subject:** [EXT] RE: Jicarilla 95 7B - Notification for Final Sampling - Variance Request

Cory, we were held up moving dirt on another location and was not able to get samples yesterday. Envirotech will take the confirmation samples today and Keith (Jicarilla EPO) will be present.

Tamra Sessions  
Regulatory Specialist  
Office 505-324-4145  
[tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)



---

**From:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>  
**Sent:** Wednesday, February 03, 2021 7:49 AM  
**To:** Tamra Sessions <[tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>  
**Cc:** Marie Florez <[mflorez@logosresourcesllc.com](mailto:mflorez@logosresourcesllc.com)>; Bryan Lovato <[blovato@logosresourcesllc.com](mailto:blovato@logosresourcesllc.com)>; Jason Meechan <[jmeechan@logosresourcesllc.com](mailto:jmeechan@logosresourcesllc.com)>; Keith Manwell-JIC EPO ([kcmanwell@yahoo.com](mailto:kcmanwell@yahoo.com)) <[kcmanwell@yahoo.com](mailto:kcmanwell@yahoo.com)>

**Subject:** RE: Jicarilla 95 7B - Notification for Final Sampling - Variance Request

Tamera,

OCD approves the alternative sampling time. Please submit a C-141 no later than February 12, 2021.  
Please sample Per 19.15.29 NMAC

OCD approval does not relieve Logos of any other requirements imposed by other regulatory agencies.

Thanks,

**Cory Smith** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1000 Rio Brazos | Aztec, NM 87410  
505.334.6178 x115 | [Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Tamra Sessions <[tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)>

**Sent:** Tuesday, February 2, 2021 2:56 PM

**To:** Smith, Cory, EMNRD <[Cory.Smith@state.nm.us](mailto:Cory.Smith@state.nm.us)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>

**Cc:** Marie Florez <[mflorez@logosresourcesllc.com](mailto:mflorez@logosresourcesllc.com)>; Bryan Lovato <[blovato@logosresourcesllc.com](mailto:blovato@logosresourcesllc.com)>; Jason Meechan <[jmeechan@logosresourcesllc.com](mailto:jmeechan@logosresourcesllc.com)>; Keith Manwell-JIC EPO ([kcmanwell@yahoo.com](mailto:kcmanwell@yahoo.com)) <[kcmanwell@yahoo.com](mailto:kcmanwell@yahoo.com)>

**Subject:** [EXT] Jicarilla 95 7B - Notification for Final Sampling - Variance Request

DO NOT NEED TO NOTIFY UNLESS WE HAUL 12 CUBIC YARDS OR MORE.

Keith Manwell (Jicarilla EPO) was notified of this incident on December 17, 2020 but this was a non-reportable incident of less than 1bbl at the time.

LOGOS is now notifying the OCD and requesting a variance to the 48 hour notice for final sample.

Friday 1/28/21, (with Keith Manwell onsite) we dug and hauled approximately 10 cyds of contaminated soil.

Today, (with Keith Manwell onsite) Envirotech did field test confirmation sampling which came back hot. Additional digging was done for an estimated combined total of 30 cyds. Jicarilla requested additional remediation and to move the separator, due to historic staining below the separator.

Envirotech will conduct confirmation sampling today, 2/2/21.

API: 30-039-26854  
Well Name: Jicarilla 95 7B  
Unit Letter: F  
Section: 36  
Township: 27N  
Range: 3W  
Lat: 36.5320892

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-138  
Revised August 1, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

\*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

**REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE**

**1. Generator Name and Address:**  
LOGOS Operating, LLC, Tamra Sessions  
2010 Afton Place, Farmington, NM 87401

**2. Originating Site:**  
Jicarilla 95 7B

**3. Location of Material (Street Address, City, State or ULSTR):**  
UL F, Section 36, T27N, 03W Rio Arriba County, NM

**4. Source and Description of Waste:**  
Dirt contaminated with produced oil and water  
Estimated Volume  yds  yd<sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul)  yd<sup>3</sup> / bbls

**5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**  
I, Tamra Sessions, representative or authorized agent for Logos Operating, LLC do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)  
 RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency  Monthly  Weekly  Per Load  
 RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)  
 MSDS Information  RCRA Hazardous Waste Analysis  Process Knowledge  Other (Provide description in Box 4)

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**  
I, Tamra Sessions, representative for Logos Operating, LLC authorize Envirotech to complete the required testing/sign the Generator Waste Testing Certification.  
I, , representative for Envirotech Inc. Soil Remediation Facility do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

**5. Transporter:**  
Various

**OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: **Envirotech inc. Soil Remediation Facility** Permit # **NM-01-0011**

Address of Facility: **#43 Road 7175 South of Bloomfield NM**

Method of Treatment and/or Disposal:

- Evaporation
- Injection
- Treating Plant
- Landfarm
- Landfill
- Other

**Waste Acceptance Status:**

**APPROVED**

**DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME:

TITLE:

DATE:

SIGNATURE: \_\_\_\_\_  
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.:

# Release Confirmation Sampling Report

## Jicarilla 95-7B

API #30-039-26854  
Section 36, T27N, R3W  
Rio Arriba County, New Mexico  
NMOCD Incident #nRM2034857931

February 24, 2021  
Project #12035-0162



Ms. Tamara Sessions  
2010 Afton Place  
Farmington, New Mexico

Phone: (505) 787-2218

E-mail: [tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)



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Jicarilla 95-7B  
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API #30-039-26854  
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Rio Arriba County, New Mexico

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## Introduction

Envirotech, Inc. (Envirotech) of Farmington, New Mexico, was contracted Logos Operating, LLC (Logos) to provide sampling activities for the closure of a release at the Jicarilla 97-5B well site (API: 30-039-26854) located within Unit F, Section 36, Township 27 North, Range 3 West, Rio Arriba County, New Mexico; see **Figure 1, Vicinity Map**.

The release was the result of a dump line freeze located on the separator and consisted of an estimated 1 barrel (bbl) of crude oil and produced water. Upon further investigation, historical staining was discovered, and the estimated release volume was adjusted to greater than 5 bbls, which included the most recent release and historical staining.

## Regulatory Standards

The following closure criteria from 19.15.29.12 NMAC were applied:

Constituent	Method	Limit
Chloride	EPA 300.0	600 mg/kg
Total Petroleum Hydrocarbons (TPH)	EPA Method 8015D	100 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA Method 8021B	50 mg/kg
Benzene	EPA Method 8021B	10 mg/kg

Due to known springs in the area, groundwater is estimated to be between 50 and 100 feet. The closest water well (SJ-01305) is located approximately 9.5 miles to the southeast. Depth to water in the well is reported at 265 feet, and the well is located 32 feet lower in elevation than the subject location. However, the site was ranked at the most stringent standards due to an unnamed tributary of Tapacito Creek runs through the location. Siting criteria documentation for the subject well site is provided in **Appendix A, Siting Documentation**.

## Release Closure Activities

Logos contractors performed excavation of the site on January 29 through February 3, 2021. Approximately 30 cubic yards of petroleum contaminated soil (PCS) were transported to Envirotech's NMOCD permitted soil remediation facility. Waste disposal documentation is provided in **Appendix B, Waste Disposal Documentation**.

The excavation was monitored utilizing field screening methods conducted by Envirotech on February 1 through 3, 2021. The final dimensions of the excavation measured approximately 19 feet by 15 feet by 8 feet below ground surface (bgs). Field screening results are summarized below and in **Appendix C, Field Notes with EPA 418.1 Field Screening Reports**.

Sample ID	Date	Sample Description	VOC (ppm)	TPH (mg/kg)
SC-01	2/1/2021	Base	10.6	236
SC-01	2/2/2021	Base	1.1	124
SC-02	2/2/2021	Base	1.6	160
SC-03	2/2/2021	Wall Composite	6.2	164
SC-02	2/2/2021	Base	Not analyzed	112
SC-03	2/2/2021	Wall Composite	Not analyzed	128
SC-04	2/2/2021	Wall Composite	5.3	328
SC-05	2/2/2021	Base	1.3	320
GS-01	2/2/2021	Background	0.0	328
SC-06	2/2/2021	Wall composite	0.0	352
SC-07	2/2/2021	Base	0.0	332
SC-01	2/3/2021	West Spoil Pile	0.3	Not analyzed
SC-02	2/3/2021	East Spoil Pile	0.0	Not analyzed
SC-03	2/3/2021	East Wall	0.0	Not analyzed
SC-04	2/3/2021	Southern Base	0.0	Not analyzed
SC-05	2/3/2021	Southern Wall	0.0	Not analyzed
SC-06	2/3/2021	North Wall	0.0	Not analyzed
SC-07	2/3/2021	Northern Base	0.0	Not analyzed
SC-08	2/3/2021	Western Wall	0.0	Not analyzed

Jicarilla Oil and Gas Administration (JOGA) representative Mr. Keith Manwell was onsite to witness and direct sampling activities.

### **Laboratory Analysis**

Envirotech personnel collected eight (8) five-point composite samples from the excavation and associated spoil pile on February 3, 2021. The spoil piles were excess soil removed from the excavation. Samples were collected from the spoil piles to verify that the soil was non-waste containing and could be used to backfill the excavation. The soil samples were placed into individual laboratory provided 4-ounce jars, capped head space free, and transported on ice to Envirotech Analytical Laboratory. The soil sample locations are illustrated in **Figure 2, Site Map** and in **Appendix C**.

### **Laboratory Analytical Results**

The soil samples were analyzed per analytical methods referenced in 19.15.29.12 NMAC. The laboratory analytical results were below laboratory detection limits for all constituents analyzed. Analytical results are summarized in **Table 1** and **Appendix D**.

### Reclamation Activities

Logos's contractor completed the backfill of the subject excavation on February 11, 2021. The excavation was backfilled with JOGA approved, non-waste containing, earthen material. The site was recontoured and graded to prevent ponding and erosion. The location is an active site; therefore, the area was not prepped for seeding. Backfill photos are provided in **Appendix E**.

### Summary and Conclusions

On February 3, 2021, Envirotech personnel completed confirmation sampling of the release closure that was completed at the Jicarilla 95-7B well site. Based on the analytical results; Envirotech recommends requesting a **No Further Action** status from the NMOCD and JOGA regarding the release closure.

### Statement of Limitations

The work and services provided were in accordance with NMOCD and JOGA standards. All observations and conclusions provided here are based on the information and current site conditions found at the subject well site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,  
**ENVIROTECH, INC.**

Reviewed by:

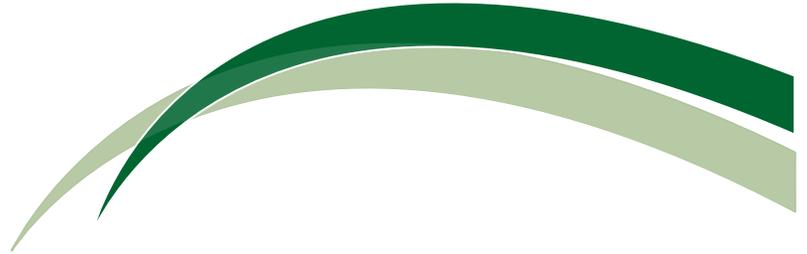


Brittany Hall  
Environmental Field Technician  
[bhall@envirotech-inc.com](mailto:bhall@envirotech-inc.com)

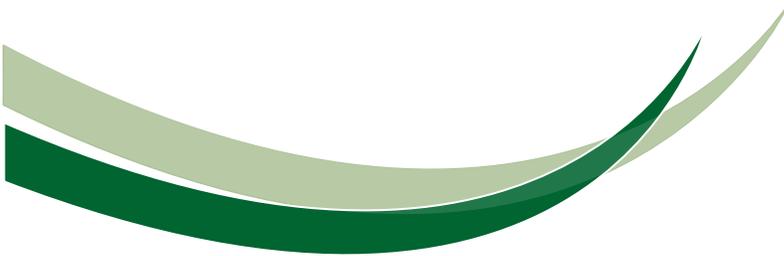


Felipe Aragon, CHMM, CES  
Environmental Assistant Manager  
[faragon@envirotech-inc.com](mailto:faragon@envirotech-inc.com)

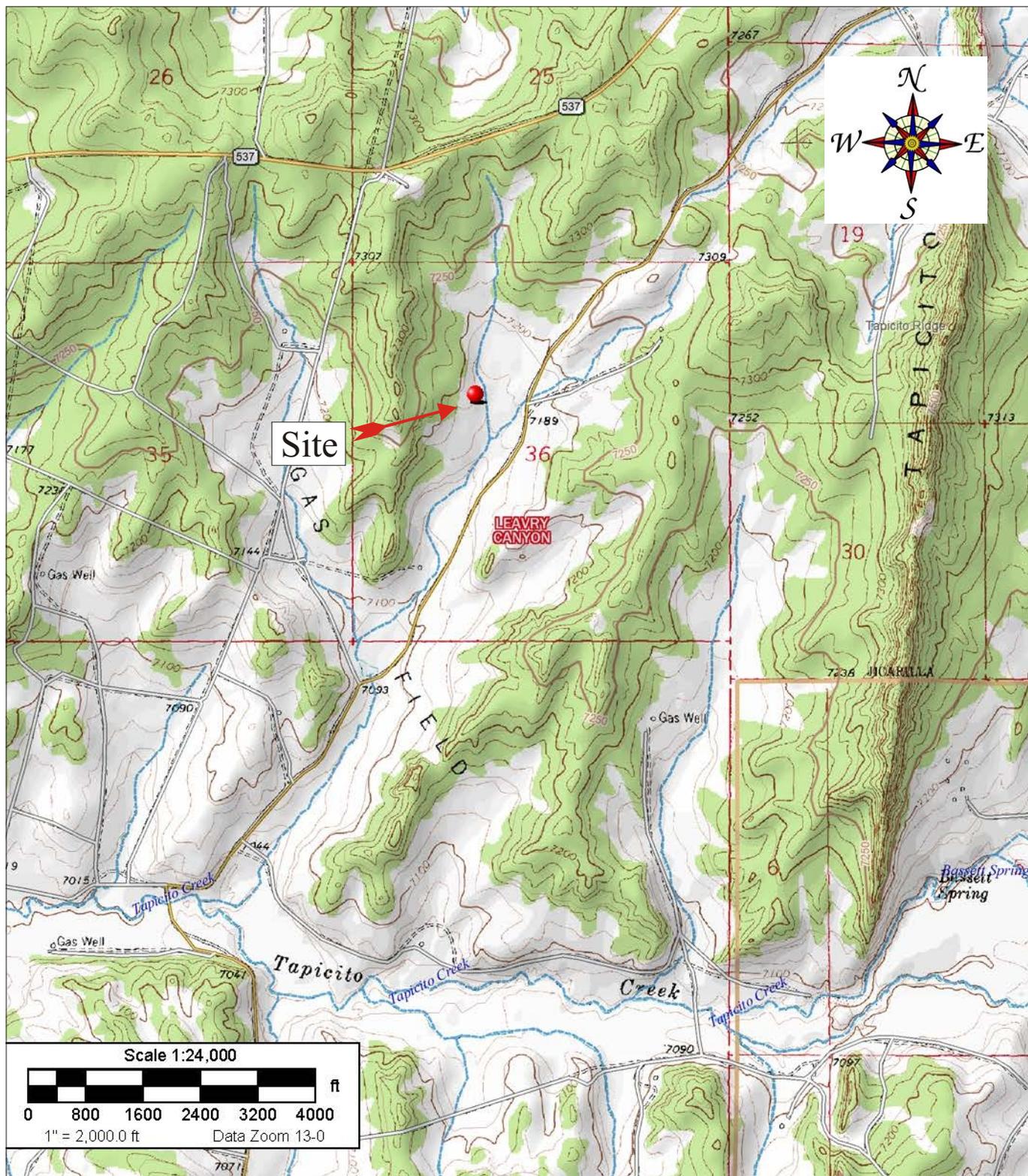
# Figures



**Figure 1, *Vicinity Map***  
**Figure 2, *Site Map***



**Practical Solutions for a Better Tomorrow**



Source: 7.5 Minute, Leavry Canyon, New Mexico U.S.G.S. Topographic Quadrangle Map  
 Scale: 1:24,000 1" = 2,000

Logos Operating, LLC. Release Closure Report Jicarilla 95-7B Well Site API: 30-039-26854 Section 36, Township 27N, Range 3W Rio Arriba County, New Mexico			Vicinity Map	
Project Number: 12035-0162      Date Drawn: 02/11/2021			Figure #1	
		5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	DRAWN BY: Brittany Hall	PROJECT MANAGER: Felipe Aragon

Excavation Dimensions:  
19 feet by 15 feet by 8 feet bgs

Spoil Pile

Wellhead

Tank Battery

Google Earth

**Legend**

SC - Soil Composite

- - SC-01      ● - SC-05
- - SC-02      ● - SC-06
- - SC-03      ● - SC-07
- - SC-04      ● - SC-08

\* Samples collected for confirmation laboratory analysis



MAP DRAWN BY:

BAH  
2/15/2021

REVISIONS BY:

NAME  
DATE

APPROVED BY:

NAME  
DATE

Scale  
1" = 35'

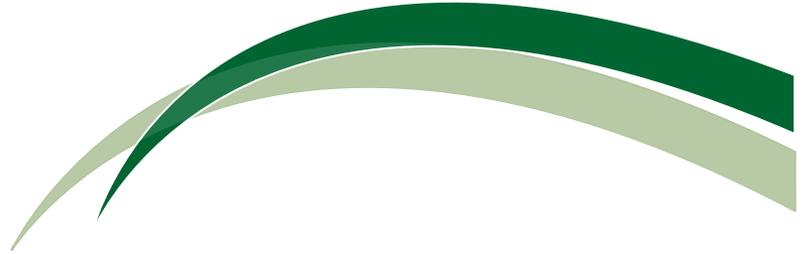
## Figure 2, Site Map

Logos Operating, LLC.  
Release Closure Report  
Jicarilla 95-7B Well Site  
API: 30-039-26854

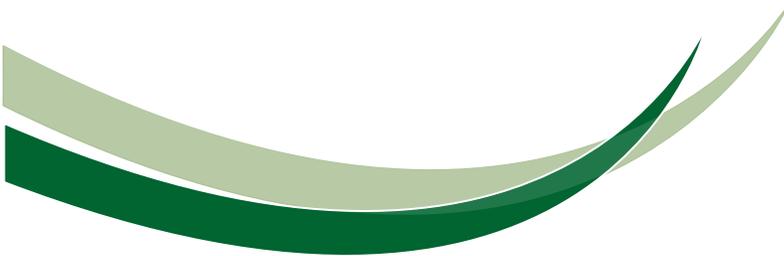
Section 36, Township 27N, Range 3W  
Rio Arriba County, New Mexico  
Project #12035-0162



# Tables



## Table 1, *Summary of Soil Analytical Results*



Practical Solutions for a Better Tomorrow

**Table 1, Summary of Soil Analytical Results**  
**Logos Operating, LLC**  
**Release Closure Report**  
**Jicarilla 95-7B; API: 30-039-26854**  
**Section 36, Township 27N, Range 3W**  
**Rio Arriba County, New Mexico**  
**Project #12035-0162**

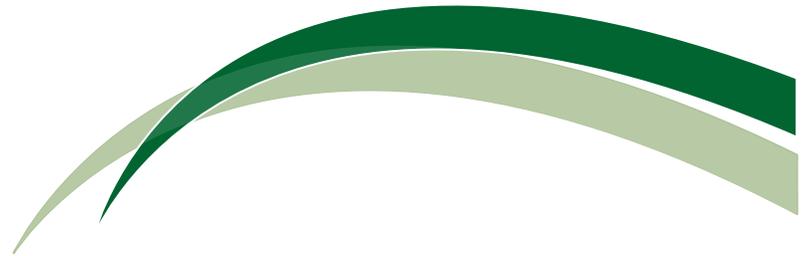
Laboratory Sample ID	Date	Sample Depth	EPA Method 8015			EPA Method 8021		EPA Method 300.0
			GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)
<i>NMOCD Release Closure Criteria (Table 1 - 19.15.29.12 NMAC)</i>			100 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
SC-01	2/3/2021	NA*	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0
SC-02		NA*	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0
SC-03		6 inches-8 feet	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0
SC-04		8 feet	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0
SC-05		6 inches-8 feet	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0
SC-06		6 inches-8 feet	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0
SC-07		8 feet	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0
SC-08		6 inches-8 feet	<20.0	<25.0	<50.0	<0.025	<0.1	<20.0

\*- sample collected from spoil pile

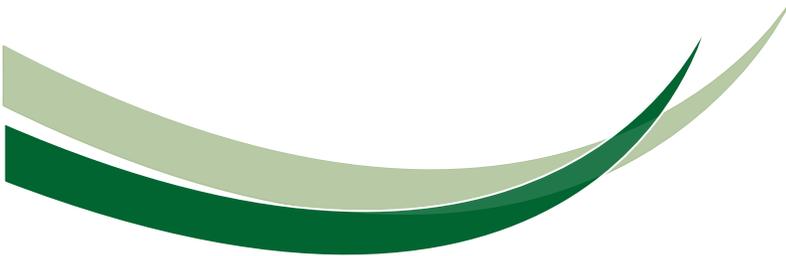


Practical Solutions for a Better Tomorrow

# Appendix A



## *Siting Criteria Documentation*



Practical Solutions for a Better Tomorrow

<b>Site Name:</b>	Jicarilla 95 7B			
<b>API #:</b>	30-039-26854			
<b>Lat/Long:</b>	36.532089, -107.099235			
<b>TRS:</b>	Unit F Sec 36 T27N R 3W			
<b>Land Jurisdiction:</b>	Jicarilla			
<b>County:</b>	Rio Arriba			
<b>Wellhead Protection Area Assessment</b>				
<b>Water Source Type (well/spring/stock pond)</b>	<b>ID</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Distance</b>
<b>Distance to Nearest Significant Watercourse</b>				
unamed tributary to Tapacito Creek runs through location				
<b>Depth to Groundwater Determination</b>				
Cathodic Report/Site Specific Hydrogeology				
Elevation Differential	site elevation 7,191; Tapacito Creek 7,043; due to known springs in the area DTW estimated 50-100'			
Water Wells				
<b>Sensitive Receptor Determination</b>				
<300' of any continuously flowing watercourse or any other significant watercourse				Yes
<200' of any lakebed, sinkhole or playa lake (measured from the Ordinary High Water				No
<300' of an occupied permanent residence, school, hospital, institution or church				No
<500' of a spring or private/domestic water well used by <5 households for domestic or stock watering purposes				No
<1000' of any water well or spring				No
Within incorporated municipal boundaries or within a defined municipal fresh water well				No
<300' of a wetland				No
Within the area overlying a subsurface mine				No
Within an unstable area				No
Within a 100-year floodplain				No
<b>DTW Determination</b>	<b>≤50</b> <input checked="" type="checkbox"/>	<b>50-100</b> <input type="checkbox"/>	<b>&gt;100</b> <input type="checkbox"/>	
Benzene	<b>10</b>	<b>10</b>	<b>10</b>	
BTEX (mg/kg)	<b>50</b>	<b>50</b>	<b>50</b>	
8015 TPH (GRO/DRO) (mg/kg)	<b>Not Applicable</b>	<b>1,000</b>	<b>1,000</b>	
8015 TPH (GRO/DRO/MRO) (mg/kg)	<b>100</b>	<b>2,500</b>	<b>2,500</b>	
Chlorides (mg/kg)	<b>600</b>	<b>10,000</b>	<b>20,000</b>	



Practical Solutions of a Better Tomorrow

30-039-26854



Show search results for 30-039...



### Measurement



Feet

Measurement Result

1,736.9 Feet

Clear

Press CTRL to enable snapping

30-039-26574

30-039-26854

30-039-25442

100m





# OSE POD Locations

Points of Diversion visible at 1:19,000 with 1,000 features per view

## Drought Tracker Online Meter Report Water Right Reporting System

Measurement

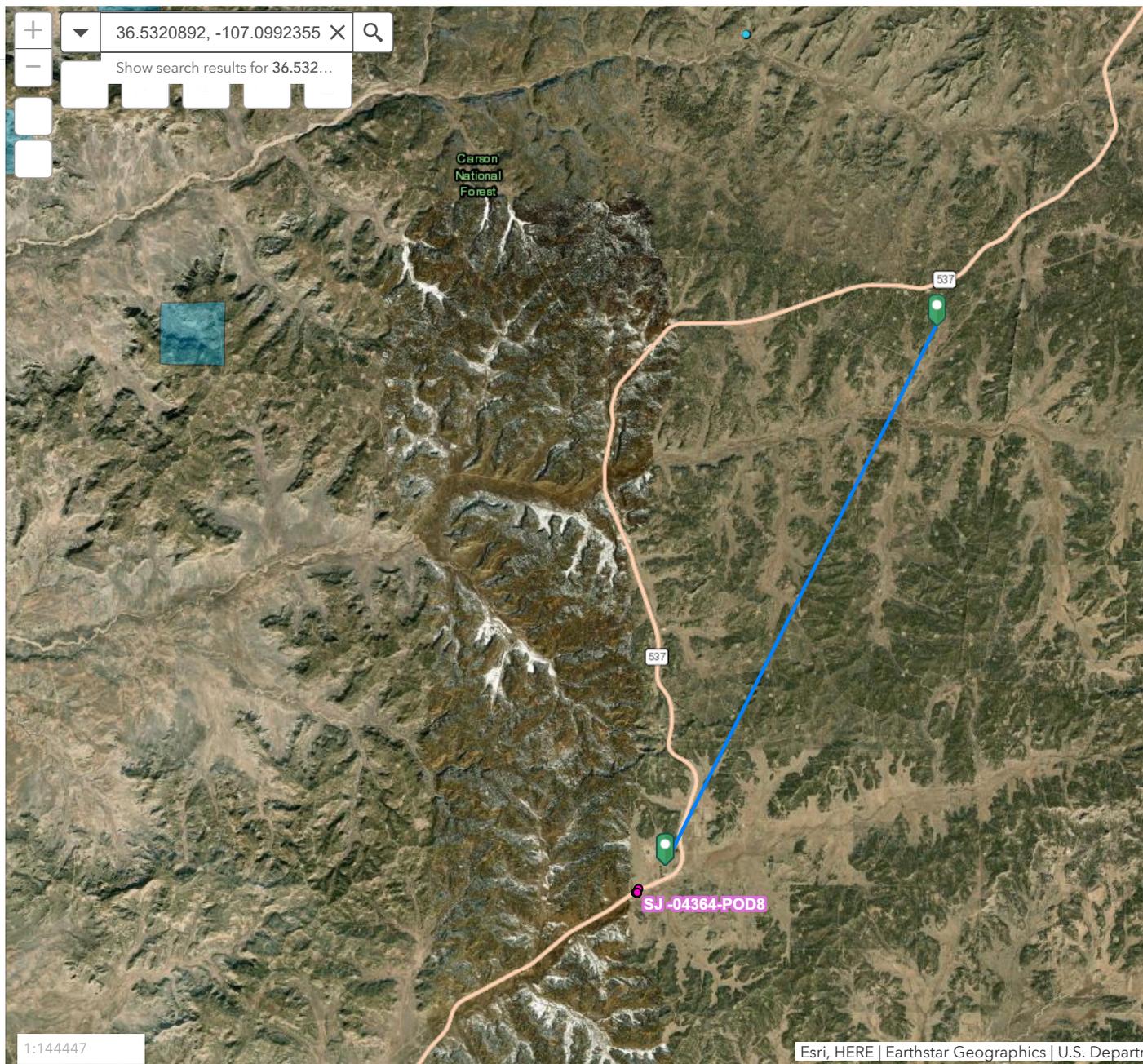
1 Miles

Measurement Result

9.45 Miles

Clear

Press CTRL to enable snapping



1:144447

2mi

-106.988 36.604 Degrees

Esri, HERE | Earthstar Geographics | U.S. Departm

All Rights Reserved



### OSE POD Locations

Points of Diversion visible at 1:19,000 with 1,000 features per view

### Drought Tracker Online Meter Report Water Right Reporting System

#### Legend

#### Recently Edited PODs



#### GIS WATERS PODs

- Active
- Pending
- Change Location of Well
- Capped
- Plugged
- Incomplete
- Unknown

#### OSE District Boundary



#### OSE District Offices

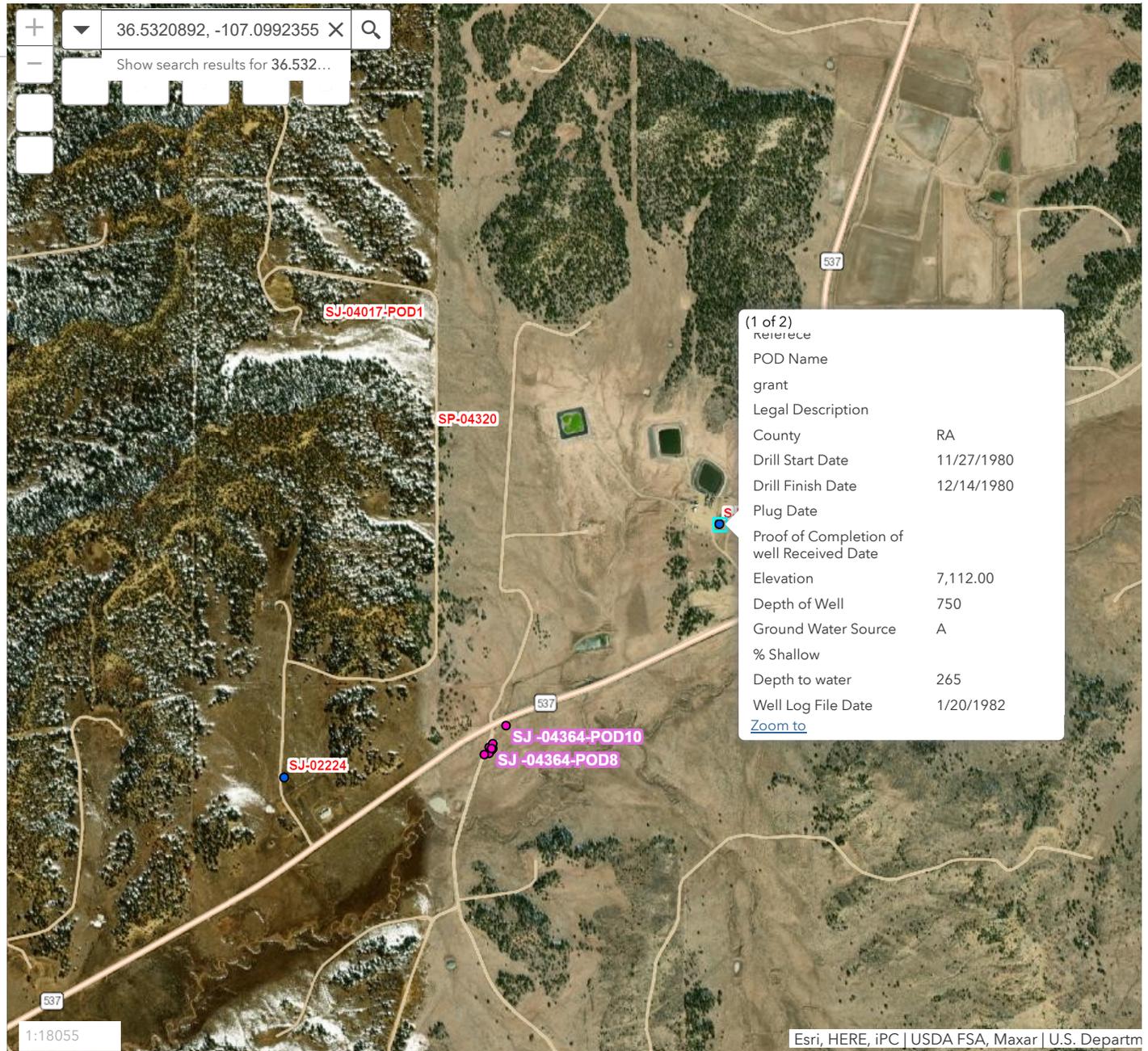


#### Water Right Regulations

- Critical Management Area - Guidelines
- Quality Restriction Area
- Local Ordinance Area
- Special Condition Area
- Negative Easement Area

#### Live Stream Gauges v1

Status



1:18055

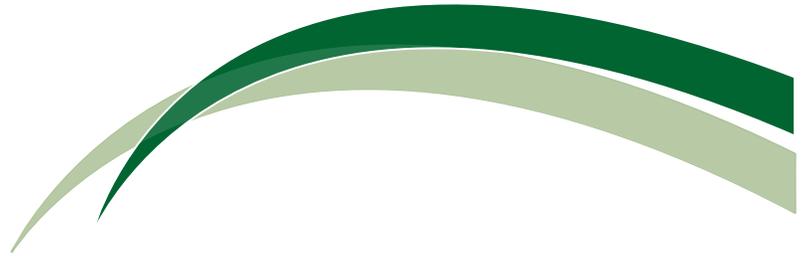
0.2mi

-107.154 36.420 Degrees

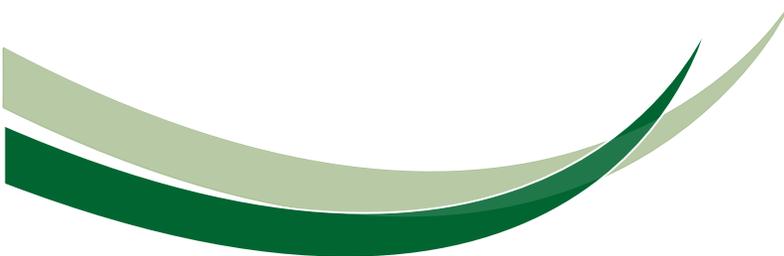
Esri, HERE, iPC | USDA FSA, Maxar | U.S. Departm

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# Appendix B



## *Waste Disposal Documentation*



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K.O.F,



BOL# 68093

### CHLORIDE TESTING / PAINT FILTER TESTING

DATE 01-29-21 TIME 1630 Attach test strip here

CUSTOMER LOGOS

SITE Jic 95 7B

DRIVER Erin D. [Signature]

SAMPLE  Soil  Straight  With Dirt

CHLORIDE TEST -299 mg/Kg

ACCEPTED YES  NO

PAINT FILTER TEST Time started 1630 Time completed 1640

PASS YES  NO

SAMPLER/ANALYST Gary Robinson

5796 US Hwy 64, Farmington, NM 87401 || Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 || info@envirotech-inc.com envirotech-inc.com







BOL# 68115

# CHLORIDE TESTING / PAINT FILTER TESTING

DATE 2/3/21 TIME 1605

Attach test strip here

CUSTOMER LOGO'S

SITE JICARILLA 95-70

DRIVER K. Emma Thibault

SAMPLE  Soil Straight \_\_\_\_\_ With Dirt \_\_\_\_\_

CHLORIDE TEST -299 mg/Kg

ACCEPTED YES  NO \_\_\_\_\_

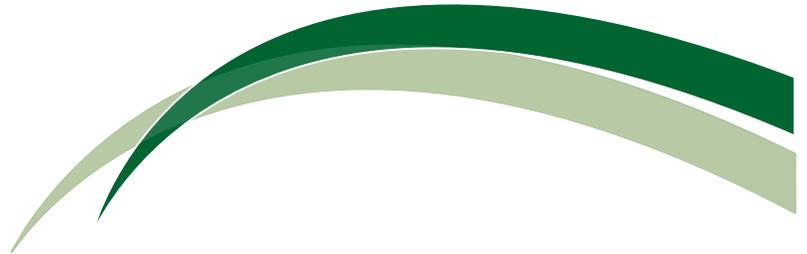
PAINT FILTER TEST Time started 1605 Time completed 1610

PASS YES  NO \_\_\_\_\_

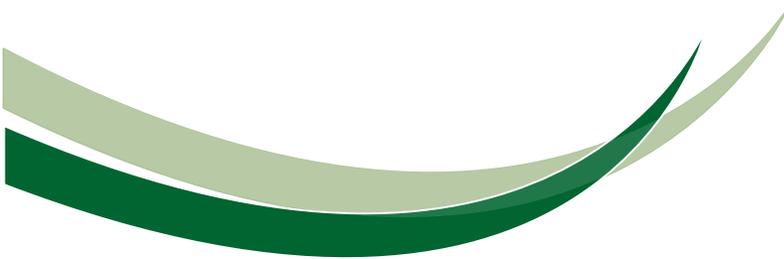
SAMPLER/ANALYST [Signature]



# Appendix C



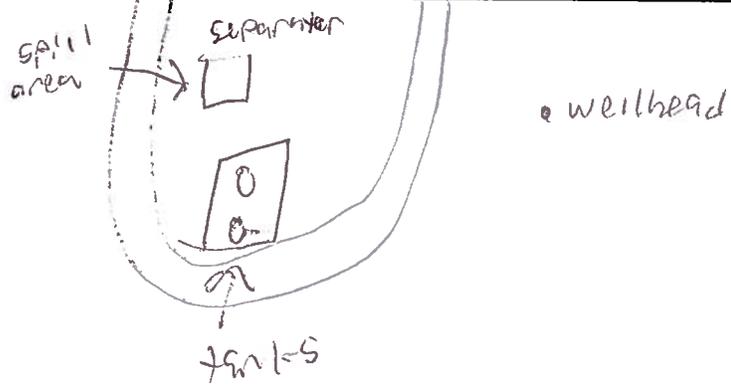
## *Field Notes with EPA 418.1 Field Screening Reports*



Practical Solutions for a Better Tomorrow



**SPILL PERIMETER:** Draw a schematic of the spill site. Attach photos and other diagrams as needed.



**EXCAVATION PROFILE:**



**NOTES:**

WO #:

Who Ordered/Site Rep:

CLIENT: <u>10905</u>	 <p>(800) 632-0615 (800) 362-1870 6788 U.S. Hwy 84, Farmington, NM 87401</p>	Envmtl. Spelst: <u>DC</u>
CLIENT/JOB #: <u>12039-0162</u>		C.O.C. No: _____
START DATE: <u>2/2/21</u>		LAT <u>36.5320892</u>
FINISH DATE: _____		LONG <u>-107.0992355</u>
Page # _____ of _____		

**Field Report: Spill Closure Verification**

LOCATION: Name: Jicarilla 95 Well #: 7B API: 30-039-26954  
 County: Rio Arriba State: New Mexico  
 Cause of Release: \_\_\_\_\_ Material Released: \_\_\_\_\_ Amt. Released: \_\_\_\_\_  
 QUAD/UNIT: SEC: 36 TWP: 27N RNG: 3W PM: \_\_\_\_\_  
 Spill Located Approximately: 70 FT. FROM wellhead  
 Excavation Approx: 15 FT. X 19 FT. X 8 FT. Cubic Yardage: ~84  
 Disposal Facility: \_\_\_\_\_  
 Land Use: Idexxon Land Owner: Jicarilla  
 REGULATORY AGENCY: State/Jicarilla TPH CLOSURE STD: \_\_\_\_\_  
 ADDITIONAL CLOSURE REQUIREMENTS: \_\_\_\_\_

**FIELD 418.1 / PID ANALYSIS**

SAMPLE NAME	SAMPLE DESCRIPTION / NOTE	TIME	READING	CALC. ppm	PID/OV	TIME	LABORATORY ANALYSIS
	200 std	12:02	198	752	-	<del>12:02</del>	
	500 std	12:05	496	1984	/	/	
	1290 std	12:09	1239	4956	/	/	
GC-01	Composite 1	12:13	31	124	1.1	12:24	
SC-02	Base 1	12:41	40	160	1.6	13:02	
SC-03	walls 1	12:54	41	164	6.2	13:04	
	200 std	13:08	194	736	/	/	
	500 std	13:10	492	1928	/	/	
	1290 std	13:12	1148	4592	/	/	
SC-02	Base 1	13:30	29	112	/	/	
SC-03	walls 1	13:34	32	128	/	/	
SC-04	walls 2	14:43	82	328	5.3	14:55	
SC-05	Base 2	14:46	50	320	1.3	14:57	
GS-01	Background	15:04	82	328	0.0	15:15	

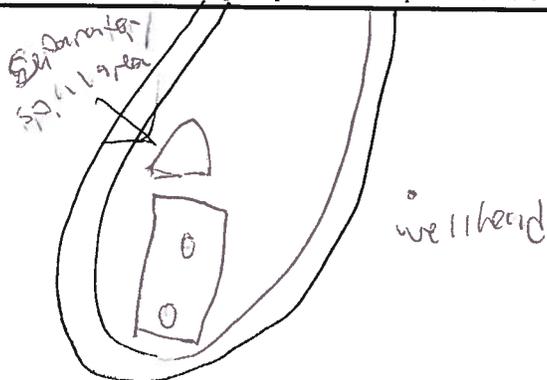
**NOTES:**

CS-COMPOSITE SAMPLE  
 GS-GRAB SAMPLE  
 SB-SOIL BORING  
 TP-TEST PIT  
 DU- DECISION UNIT  
 ST-STATION

Jason with 10905 wants TPH ppm below 100 on field screening before turning in samples.

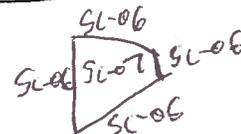
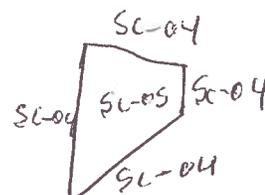
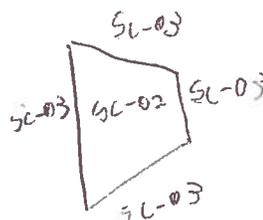


**SPILL PERIMETER:** Draw a schematic of the spill site. Attach photos and other diagrams as needed.



**EXCAVATION PROFILE:**

SL-01



**NOTES:**

Wall samples were taken from middle of walls

Base samples taken in formation

∴

WO #:

Who Ordered/Site Rep:

CLIENT: <u>LOGOS OPERATING</u>	 <b>envirotech</b> <small>(800) 632-0618 (800) 362-1870                  8788 U.S. Hwy 84, Farmington, NH 07401</small>	Envmtl. Spclst: <u>DC</u>
CLIENT/JOB #: <u>12035-0162</u>		C.O.C. No: _____
START DATE: <u>2/3/21</u>		LAT <u>36.5320892</u>
FINISH DATE: _____		LONG <u>-102.0992355</u>
Page # _____ of _____		

**Field Report: Spill Closure Verification**

LOCATION:	Name: <u>TICOM 119 95-00</u> Well #: <u>2B</u> API: <u>301039-26964</u>
	County: <u>Rio Arriba</u> State: <u>NEW MEXICO</u>
Cause of Release: _____	Material Released: _____ Amt. Released: _____
QUAD/UNIT: _____	SEC: <u>36</u> TWP: <u>22N</u> RNG: <u>3W</u> PM: _____
Spill Located Approximately: <u>70</u> FT. FROM <u>WELL</u>	
Excavation Approx: <u>15</u> FT. X <u>12</u> FT. X <u>8</u> FT.	Cubic Yardage: <u>1284</u>
Disposal Facility: _____	
Land Use: <u>10 CAYTON</u>	Land Owner: <u>TICOM 119</u>
REGULATORY AGENCY: <u>STATE OF NEW MEXICO</u>	TPH CLOSURE STD: _____

ADDITIONAL CLOSURE REQUIREMENTS:

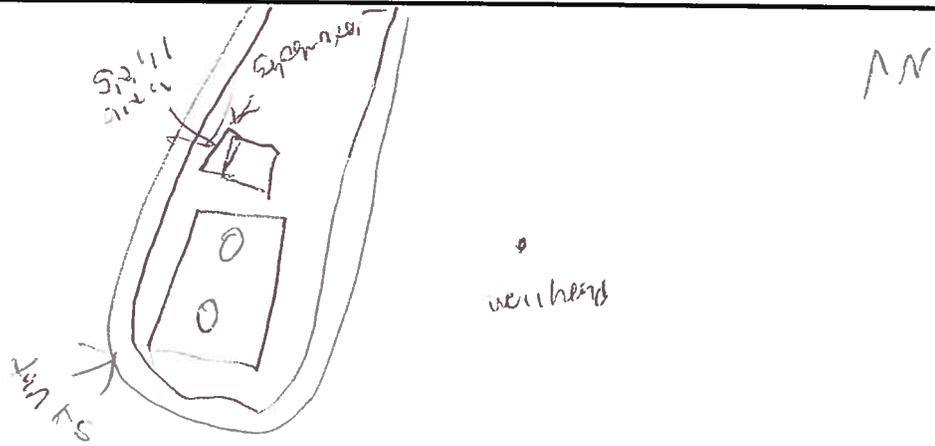
**FIELD 418.1 / PID ANALYSIS**

SAMPLE NAME	SAMPLE DESCRIPTION / NOTE	TIME	READING	CALC. ppm	PID/OV	TIME	LABORATORY ANALYSIS
SC-01	WEST SPILL PILE				0.3	13:35	✓
SC-02	EAST SPILL PILE				0.0	13:36	✓
SC-03	EAST WALL				0.0	13:37	✓
SC-04	SOUTHERN BASE				0.0	13:38	✓
SC-05	SOUTHERN WALL				0.0	13:39	✓
SC-06	NORTH WALL				0.0	13:40	✓
SC-07	NORTHERN BASE				0.0	13:41	✓
SC-08	WESTERN WALL				0.0	13:42	✓

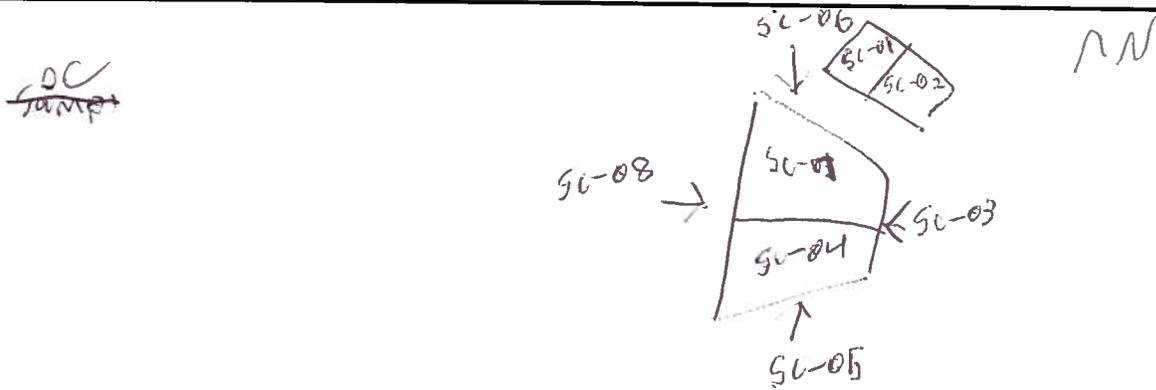
**NOTES:**

CS-COMPOSITE SAMPLE GS-GRAB SAMPLE SB-SOIL BORING TP-TEST PIT DU- DECISION UNIT ST-STATION	
---	--

**SPILL PERIMETER:** Draw a schematic of the spill site. Attach photos and other diagrams as needed.



**EXCAVATION PROFILE:**



**NOTES:**

Samples taken in [unclear] formation

WO #:

Who Ordered/Site Rep:



**CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Cal. Date: 1-Feb-21

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	188
	200	
	500	
	1000	
	5000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Brittany Hall for  
Analyst

2/23/2021  
Date

Damon Carter  
Print Name

Review

2/23/2021  
Date

Felipe Aragon, CES, CHMM  
Print Name



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Logos Operating, LLC	Project #:	12035-016
Sample No.:	1	Date Reported:	2/23/2021
Sample ID:	SC-01	Date Sampled:	2/1/2021
Sample Matrix:	Soil	Date Analyzed:	2/1/2021
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

<b>Total Petroleum Hydrocarbons</b>	<b>236</b>	<b>5.0</b>
-------------------------------------	------------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla 95-7B**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Brittany Hall for  
Analyst

Felipe Aragon  
Review

Damon Carter  
Printed

Felipe Aragon, CES, CHMM  
Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Logos Operating, LLC	Project #:	12035-016
Sample No.:	1	Date Reported:	2/23/2021
Sample ID:	SC-06	Date Sampled:	2/3/2021
Sample Matrix:	Soil	Date Analyzed:	2/3/2021
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

<b>Total Petroleum Hydrocarbons</b>	<b>352</b>	<b>5.0</b>
-------------------------------------	------------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla 95-7B**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

  
 \_\_\_\_\_ for  
 Analyst

  
 \_\_\_\_\_  
 Review

Damon Carter  
 \_\_\_\_\_  
 Printed

Felipe Aragon, CES, CHMM  
 \_\_\_\_\_  
 Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Logos Operating, LLC	Project #:	12035-016
Sample No.:	2	Date Reported:	2/23/2021
Sample ID:	SC-07	Date Sampled:	2/3/2021
Sample Matrix:	Soil	Date Analyzed:	2/3/2021
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

<b>Total Petroleum Hydrocarbons</b>	<b>332</b>	<b>5.0</b>
-------------------------------------	------------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Jicarilla 95-7B**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

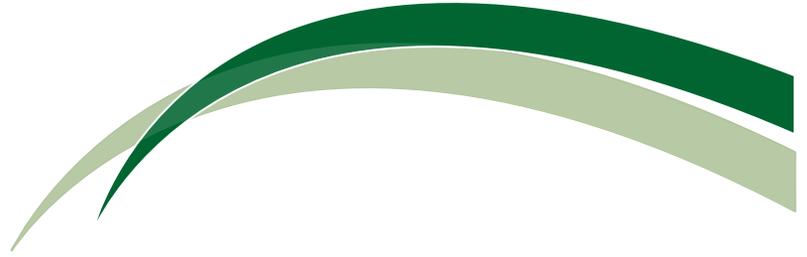
Brittany Hall for  
Analyst

[Signature]  
Review

Damon Carter  
Printed

Felipe Aragon, CES, CHMM  
Printed

# Appendix D



## *Laboratory Analytical Report*



Practical Solutions for a Better Tomorrow

Report to:  
Felipe Aragon



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Logos Operating, LLC

Project Name: Jicarilla 95-7B Confirmation  
Sampling

Work Order: E102008

Job Number: 12035-0159

Received: 2/4/2021

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
2/8/21

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM009792018-1 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557-19-2 for data reported.

Date Reported: 2/8/21

Felipe Aragon  
2010 Afton Place  
Farmington, NM 87401



Project Name: Jicarilla 95-7B Confirmation Sampling  
Workorder: E102008  
Date Received: 2/4/2021 8:23:00AM

Felipe Aragon,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 2/4/2021 8:23:00AM, under the Project Name: Jicarilla 95-7B Confirmation Sampling.

The analytical test results summarized in this report with the Project Name: Jicarilla 95-7B Confirmation Sampling apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

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## Sample Summary

Logos Operating, LLC  
2010 Afton Place  
Farmington NM, 87401

Project Name: Jicarilla 95-7B Confirmation Sampling  
Project Number: 12035-0159  
Project Manager: Felipe Aragon

**Reported:**  
02/08/21 12:52

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-01	E102008-01A	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
	E102008-01B	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
SC-02	E102008-02A	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
	E102008-02B	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
SC-03	E102008-03A	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
	E102008-03B	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
SC-04	E102008-04A	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
	E102008-04B	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
SC-05	E102008-05A	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
	E102008-05B	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
SC-06	E102008-06A	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
	E102008-06B	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
SC-07	E102008-07A	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
	E102008-07B	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
SC-08	E102008-08A	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.
	E102008-08B	Soil	02/03/21	02/04/21	Glass Jar, 4 oz.



## Sample Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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## SC-01

## E102008-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Benzene	ND	0.0250	1	02/04/21	02/05/21	
Toluene	ND	0.0250	1	02/04/21	02/05/21	
Ethylbenzene	ND	0.0250	1	02/04/21	02/05/21	
p,m-Xylene	ND	0.0500	1	02/04/21	02/05/21	
o-Xylene	ND	0.0250	1	02/04/21	02/05/21	
Total Xylenes	ND	0.0250	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		96.9 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		92.2 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		96.9 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		92.2 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2106030
Diesel Range Organics (C10-C28)	ND	25.0	1	02/04/21	02/04/21	
Oil Range Organics (C28-C35)	ND	50.0	1	02/04/21	02/04/21	
<i>Surrogate: n-Nonane</i>		92.1 %	50-200	02/04/21	02/04/21	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2106029
Chloride	ND	20.0	1	02/04/21	02/04/21	



### Sample Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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**SC-02**

**E102008-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Benzene	ND	0.0250	1	02/04/21	02/05/21	
Toluene	ND	0.0250	1	02/04/21	02/05/21	
Ethylbenzene	ND	0.0250	1	02/04/21	02/05/21	
p,m-Xylene	ND	0.0500	1	02/04/21	02/05/21	
o-Xylene	ND	0.0250	1	02/04/21	02/05/21	
Total Xylenes	ND	0.0250	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.2 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		91.2 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.2 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		91.2 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2106030
Diesel Range Organics (C10-C28)	ND	25.0	1	02/04/21	02/04/21	
Oil Range Organics (C28-C35)	ND	50.0	1	02/04/21	02/04/21	
<i>Surrogate: n-Nonane</i>		103 %	50-200	02/04/21	02/04/21	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2106029
Chloride	ND	20.0	1	02/04/21	02/04/21	



### Sample Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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**SC-03**

**E102008-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Benzene	ND	0.0250	1	02/04/21	02/05/21	
Toluene	ND	0.0250	1	02/04/21	02/05/21	
Ethylbenzene	ND	0.0250	1	02/04/21	02/05/21	
p,m-Xylene	ND	0.0500	1	02/04/21	02/05/21	
o-Xylene	ND	0.0250	1	02/04/21	02/05/21	
Total Xylenes	ND	0.0250	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.5 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.7 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		93.2 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.5 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.7 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		93.2 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2106030
Diesel Range Organics (C10-C28)	ND	25.0	1	02/04/21	02/04/21	
Oil Range Organics (C28-C35)	ND	50.0	1	02/04/21	02/04/21	
<i>Surrogate: n-Nonane</i>		97.8 %	50-200	02/04/21	02/04/21	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2106029
Chloride	ND	20.0	1	02/04/21	02/05/21	



## Sample Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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## SC-04

## E102008-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Benzene	ND	0.0250	1	02/04/21	02/05/21	
Toluene	ND	0.0250	1	02/04/21	02/05/21	
Ethylbenzene	ND	0.0250	1	02/04/21	02/05/21	
p,m-Xylene	ND	0.0500	1	02/04/21	02/05/21	
o-Xylene	ND	0.0250	1	02/04/21	02/05/21	
Total Xylenes	ND	0.0250	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.1 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		92.2 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.1 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		92.2 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2106030
Diesel Range Organics (C10-C28)	ND	25.0	1	02/04/21	02/04/21	
Oil Range Organics (C28-C35)	ND	50.0	1	02/04/21	02/04/21	
<i>Surrogate: n-Nonane</i>		101 %	50-200	02/04/21	02/04/21	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2106029
Chloride	ND	20.0	1	02/04/21	02/05/21	



## Sample Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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## SC-05

## E102008-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Benzene	ND	0.0250	1	02/04/21	02/05/21	
Toluene	ND	0.0250	1	02/04/21	02/05/21	
Ethylbenzene	ND	0.0250	1	02/04/21	02/05/21	
p,m-Xylene	ND	0.0500	1	02/04/21	02/05/21	
o-Xylene	ND	0.0250	1	02/04/21	02/05/21	
Total Xylenes	ND	0.0250	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		99.5 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		95.6 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		99.5 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		95.6 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2106030
Diesel Range Organics (C10-C28)	ND	25.0	1	02/04/21	02/04/21	
Oil Range Organics (C28-C35)	ND	50.0	1	02/04/21	02/04/21	
<i>Surrogate: n-Nonane</i>		97.0 %	50-200	02/04/21	02/04/21	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2106029
Chloride	ND	20.0	1	02/04/21	02/05/21	



### Sample Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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**SC-06**

**E102008-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Benzene	ND	0.0250	1	02/04/21	02/05/21	
Toluene	ND	0.0250	1	02/04/21	02/05/21	
Ethylbenzene	ND	0.0250	1	02/04/21	02/05/21	
p,m-Xylene	ND	0.0500	1	02/04/21	02/05/21	
o-Xylene	ND	0.0250	1	02/04/21	02/05/21	
Total Xylenes	ND	0.0250	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.5 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		94.0 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.5 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		94.0 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2106030
Diesel Range Organics (C10-C28)	ND	25.0	1	02/04/21	02/04/21	
Oil Range Organics (C28-C35)	ND	50.0	1	02/04/21	02/04/21	
<i>Surrogate: n-Nonane</i>		99.1 %	50-200	02/04/21	02/04/21	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2106029
Chloride	ND	20.0	1	02/04/21	02/05/21	



### Sample Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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**SC-07**

**E102008-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Benzene	ND	0.0250	1	02/04/21	02/05/21	
Toluene	ND	0.0250	1	02/04/21	02/05/21	
Ethylbenzene	ND	0.0250	1	02/04/21	02/05/21	
p,m-Xylene	ND	0.0500	1	02/04/21	02/05/21	
o-Xylene	ND	0.0250	1	02/04/21	02/05/21	
Total Xylenes	ND	0.0250	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		98.2 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		94.6 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		98.2 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		94.6 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2106030
Diesel Range Organics (C10-C28)	ND	25.0	1	02/04/21	02/04/21	
Oil Range Organics (C28-C35)	ND	50.0	1	02/04/21	02/04/21	
<i>Surrogate: n-Nonane</i>		101 %	50-200	02/04/21	02/04/21	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2106029
Chloride	ND	20.0	1	02/04/21	02/05/21	



## Sample Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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## SC-08

## E102008-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Benzene	ND	0.0250	1	02/04/21	02/05/21	
Toluene	ND	0.0250	1	02/04/21	02/05/21	
Ethylbenzene	ND	0.0250	1	02/04/21	02/05/21	
p,m-Xylene	ND	0.0500	1	02/04/21	02/05/21	
o-Xylene	ND	0.0250	1	02/04/21	02/05/21	
Total Xylenes	ND	0.0250	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		111 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.6 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		94.1 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		111 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Toluene-d8</i>		97.6 %	70-130	02/04/21	02/05/21	
<i>Surrogate: Bromofluorobenzene</i>		94.1 %	70-130	02/04/21	02/05/21	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2106030
Diesel Range Organics (C10-C28)	ND	25.0	1	02/04/21	02/04/21	
Oil Range Organics (C28-C35)	ND	50.0	1	02/04/21	02/04/21	
<i>Surrogate: n-Nonane</i>		106 %	50-200	02/04/21	02/04/21	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2106029
Chloride	ND	20.0	1	02/04/21	02/05/21	



### QC Summary Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	Reported: 2/8/2021 12:52:14PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2106027-BLK1)

Prepared: 02/04/21 Analyzed: 02/04/21

Benzene	ND	0.0250							
Toluene	ND	0.0250							
Ethylbenzene	ND	0.0250							
p,m-Xylene	ND	0.0500							
o-Xylene	ND	0.0250							
Total Xylenes	ND	0.0250							
Surrogate: 1,2-Dichloroethane-d4	0.537		0.500		107	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.7	70-130			
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			

#### LCS (2106027-BS1)

Prepared: 02/04/21 Analyzed: 02/04/21

Benzene	2.45	0.0250	2.50		98.0	70-130			
Toluene	2.50	0.0250	2.50		100	70-130			
Ethylbenzene	2.45	0.0250	2.50		98.1	70-130			
p,m-Xylene	4.69	0.0500	5.00		93.9	70-130			
o-Xylene	2.36	0.0250	2.50		94.4	70-130			
Total Xylenes	7.05	0.0250	7.50		94.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.482		0.500		96.3	70-130			
Surrogate: Bromofluorobenzene	0.450		0.500		89.9	70-130			

#### Matrix Spike (2106027-MS1)

Source: E102007-01 Prepared: 02/04/21 Analyzed: 02/04/21

Benzene	2.51	0.0250	2.50	ND	101	48-131			
Toluene	2.53	0.0250	2.50	ND	101	48-130			
Ethylbenzene	2.51	0.0250	2.50	ND	100	45-135			
p,m-Xylene	4.81	0.0500	5.00	ND	96.1	43-135			
o-Xylene	2.42	0.0250	2.50	ND	96.8	43-135			
Total Xylenes	7.23	0.0250	7.50	ND	96.4	43-135			
Surrogate: 1,2-Dichloroethane-d4	0.546		0.500		109	70-130			
Surrogate: Toluene-d8	0.488		0.500		97.6	70-130			
Surrogate: Bromofluorobenzene	0.696		0.500		139	70-130			S3

#### Matrix Spike Dup (2106027-MSD1)

Source: E102007-01 Prepared: 02/04/21 Analyzed: 02/04/21

Benzene	2.36	0.0250	2.50	ND	94.6	48-131	6.11	23	
Toluene	2.43	0.0250	2.50	ND	97.1	48-130	3.96	24	
Ethylbenzene	2.44	0.0250	2.50	ND	97.6	45-135	2.89	27	
p,m-Xylene	4.67	0.0500	5.00	ND	93.3	43-135	2.99	27	
o-Xylene	2.36	0.0250	2.50	ND	94.4	43-135	2.53	27	
Total Xylenes	7.03	0.0250	7.50	ND	93.7	43-135	2.83	27	
Surrogate: 1,2-Dichloroethane-d4	0.523		0.500		105	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			
Surrogate: Bromofluorobenzene	0.782		0.500		156	70-130			S3



### QC Summary Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2106027-BLK1)**

Prepared: 02/04/21 Analyzed: 02/04/21

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1,2-Dichloroethane-d4	0.537		0.500		107	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.7	70-130			
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			

**LCS (2106027-BS2)**

Prepared: 02/04/21 Analyzed: 02/04/21

Gasoline Range Organics (C6-C10)	50.8	20.0	50.0		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.485		0.500		97.0	70-130			
Surrogate: Bromofluorobenzene	0.447		0.500		89.3	70-130			

**Matrix Spike (2106027-MS2)**

Source: E102007-01 Prepared: 02/04/21 Analyzed: 02/04/21

Gasoline Range Organics (C6-C10)	91.7	20.0	50.0	46.1	91.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.525		0.500		105	70-130			
Surrogate: Toluene-d8	0.516		0.500		103	70-130			
Surrogate: Bromofluorobenzene	0.702		0.500		140	70-130			S3

**Matrix Spike Dup (2106027-MSD2)**

Source: E102007-01 Prepared: 02/04/21 Analyzed: 02/04/21

Gasoline Range Organics (C6-C10)	104	20.0	50.0	46.1	115	70-130	12.4	20	
Surrogate: 1,2-Dichloroethane-d4	0.513		0.500		103	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			
Surrogate: Bromofluorobenzene	0.868		0.500		174	70-130			S3



### QC Summary Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2106030-BLK1)**

Prepared: 02/04/21 Analyzed: 02/04/21

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C35)	ND	50.0							
Surrogate: n-Nonane	47.3		50.0		94.5	50-200			

**LCS (2106030-BS1)**

Prepared: 02/04/21 Analyzed: 02/04/21

Diesel Range Organics (C10-C28)	487	25.0	500		97.5	38-132			
Surrogate: n-Nonane	46.7		50.0		93.3	50-200			

**Matrix Spike (2106030-MS1)**

Source: E102008-04 Prepared: 02/04/21 Analyzed: 02/04/21

Diesel Range Organics (C10-C28)	501	25.0	500	ND	100	38-132			
Surrogate: n-Nonane	46.0		50.0		92.1	50-200			

**Matrix Spike Dup (2106030-MSD1)**

Source: E102008-04 Prepared: 02/04/21 Analyzed: 02/04/21

Diesel Range Organics (C10-C28)	495	25.0	500	ND	99.0	38-132	1.21	20	
Surrogate: n-Nonane	47.9		50.0		95.7	50-200			



### QC Summary Data

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 2/8/2021 12:52:14PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2106029-BLK1)**

Prepared: 02/04/21 Analyzed: 02/04/21

Chloride ND 20.0

**LCS (2106029-BS1)**

Prepared: 02/04/21 Analyzed: 02/04/21

Chloride 249 20.0 250 99.7 90-110

**Matrix Spike (2106029-MS1)**

Source: E102007-01 Prepared: 02/04/21 Analyzed: 02/04/21

Chloride 253 20.0 250 ND 101 80-120

**Matrix Spike Dup (2106029-MSD1)**

Source: E102007-01 Prepared: 02/04/21 Analyzed: 02/04/21

Chloride 254 20.0 250 ND 101 80-120 0.158 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Logos Operating, LLC 2010 Afton Place Farmington NM, 87401	Project Name: Jicarilla 95-7B Confirmation Sampling Project Number: 12035-0159 Project Manager: Felipe Aragon	<b>Reported:</b> 02/08/21 12:52
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S3 Surrogate spike recovery was outside acceptance limits. LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



<b>Client: Logos</b>		<b>Report Attention</b>		<b>Lab Use Only</b>				<b>TAT</b>		<b>EPA Program</b>		
Project: Jicarilla 95-7B Confirmation Sampling		Report due by: _____		Lab WO# <b>E 102008</b>		Job Number 12035-0159		1D	3D	RCRA	CWA	SDWA
Project Manager: <u>F.Aragon</u>		Email: _____		Analysis and Method				<b>X</b>				
Address: _____		Address: _____		State								
City, State, Zip _____		City, State, Zip _____		NM		CO		UT	AZ			
Email: Gcrabtree Dcarter Faragon Tknight Bhall		Phone: _____										
Cgreen Igarcia												

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	8015	ORO	8021	Cl-										Remarks
13:12	2/3/2021	S	2	SC-01	1	X	X	X	X										Cool
13:13	2/3/2021	S	2	SC-02	2	X	X	X	X										Cool
13:21	2/3/2021	S	2	SC-03	3	X	X	X	X										Cool
13:16	2/3/2021	S	2	SC-04	4	X	X	X	X										Cool
13:29	2/3/2021	S	2	SC-05	5	X	X	X	X										Cool
13:23	2/3/2021	S	2	SC-06	6	X	X	X	X										Cool
13:18	2/3/2021	S	2	SC-07	7	X	X	X	X										Cool
13:19	2/3/2021	S	2	SC-08	8	X	X	X	X										Cool

**Additional Instructions:**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Damon Carter

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6°C on subsequent days.

Relinquished by: (Signature) <i>Damon Carter</i>	Date 2/3/21	Time 3:23	Received by: (Signature) <i>Alvessa</i>	Date 2-4-21	Time 8:23	<b>Lab Use Only</b> Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C _____
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other \_\_\_\_\_ Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, **v** - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboraotry is limited to the amount paid for on the report.



**Envirotech Analytical Laboratory**

Printed: 2/4/2021 9:52:12AM

**Sample Receipt Checklist (SRC)**

**Instructions:** Please take note of any NO checkmarks.

**If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.**

Client: Logos Operating, LLC	Date Received: 02/04/21 08:23	Work Order ID: E102008
Phone: (505)215-8215	Date Logged In: 02/04/21 09:45	Logged In By: Alexa Michaels
Email:	Due Date: 02/05/21 17:00 (1 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Damon Carter

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Comments/Resolution**

Email- Felipe, Tami, Greg, Brittany, Isaac, Clay, Damon

**Client Instruction**

Email- Felipe, Tami, Greg, Brittany, Isaac, Clay, Damon

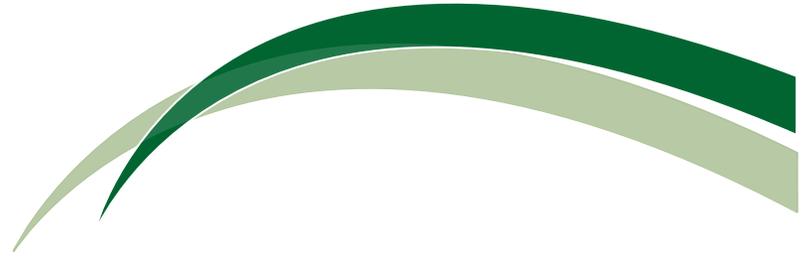
\_\_\_\_\_  
Signature of client authorizing changes to the COC or sample disposition.

\_\_\_\_\_  
Date

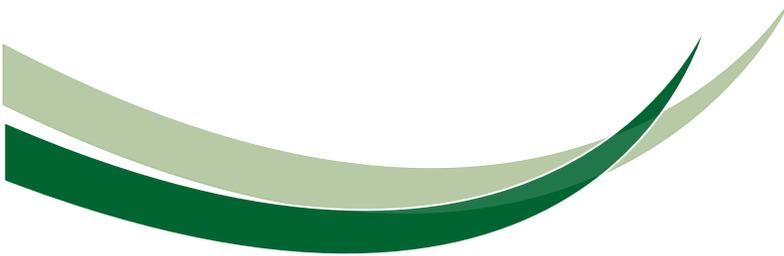


envirotech Inc.

# Appendix E



## *Site Photography*



Practical Solutions for a Better Tomorrow

**Site Photography  
LOGOS Operating, LLC  
Jicarilla 95-7B Well Site**



**Site Area**



**Site Area: Spill  
December 17, 2020**

Site Photography  
Logos Operating, LLC.  
Release Closure Report  
Jicarilla 95-7B Well Site  
Rio Arriba County, New Mexico  
Project #12053-0162  
February 2021

February 2, 2021



Picture 1: View of Base and West Wall



Picture 2: View of South Wall

Site Photography  
Logos Operating, LLC.  
Release Closure Report  
Jicarilla 95-7B Well Site  
Rio Arriba County, New Mexico  
Project #12053-0162  
February 2021



Picture 3: View of North Wall

**February 3, 2021**



Picture 4: View of Base

Site Photography  
Logos Operating, LLC.  
Release Closure Report  
Jicarilla 95-7B Well Site  
Rio Arriba County, New Mexico  
Project #12053-0162  
February 2021



Picture 5: View of North and East Walls and Spoil Pile



Picture 5: View of South and West Walls

**Site Photography**  
**LOGOS Operating, LLC**  
**Jicarilla 95-7B Well Site**



**Site Area: Backfill**  
**February 11, 2021**

**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 22008

**CONDITIONS**

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 22008
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jnobui	Accepted for record per JOGA approval. Release resolved.	2/8/2022