

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: Marie E. Florez	Title: Regulatory Specialist
Signature: Marie E. Florez	Date: 3/24/2021
email: mflorez@logosresourcesllc.com	Telephone: 505-419-8420
<u>OCD Only</u> Received by: _____ Date: _____	

State of New Mexico
Oil Conservation Division

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Printed Name: Marie E. Florez Title: Regulatory SpecialistSignature: Marie E. Florez Date: 3/24/2021email: 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?	<u>50 - 100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input 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 not 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



From: [Smith, Cory, EMNRD](#)
To: [Tamra Sessions](#); [Powell, Brandon, EMNRD](#)
Cc: [Marie Florez](#); [Bryan Lovato](#); [Jason Meechan](#); [Keith Manwell-JIC EPO \(kcmawell@yahoo.com\)](#)
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
<http://www.emnrd.state.nm.us/OCD/>

From: Tamra Sessions <tsessions@logosresourcesllc.com>
Sent: Wednesday, February 3, 2021 10:49 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Cc: Marie Florez <mflorez@logosresourcesllc.com>; Bryan Lovato <blovato@logosresourcesllc.com>; Jason Meechan <jmeechan@logosresourcesllc.com>; Keith Manwell-JIC EPO (kcmawell@yahoo.com) <kcmawell@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



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

From: Tamra Sessions <tsessions@logosresourcesllc.com>

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

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Powell, Brandon, EMNRD
<Brandon.Powell@state.nm.us>

Cc: Marie Florez <mflorez@logosresourcesllc.com>; Bryan Lovato
<blovato@logosresourcesllc.com>; Jason Meechan <jmeechan@logosresourcesllc.com>; Keith
Manwell-JIC EPO (<kcmannwell@yahoo.com>) <kcmannwell@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
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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 3yds yd ³ / bbls Known Volume (to be entered by the operator at the end of the haul) yd ³ / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, <u>Tamra Sessions</u> , representative or authorized agent for <u>Logos Operating, LLC</u> 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) <input checked="" type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <u>Operator Use Only: Waste Acceptance Frequency</u> <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load <input type="checkbox"/> 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) <input type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)	
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, <u>Tamra Sessions</u> , representative for <u>Logos Operating, LLC</u> authorize Envirotech to complete the required testing/sign the Generator Waste Testing Certification. I, , representative for <u>Envirotech Inc. Soil Remediation Facility</u> 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.: (505) 632-1782

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



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Logos Operating, LLC
Jicarilla 95-7B
Release Closure Report
API #30-039-26854
Unit F, Section 36, T27N, R3W
Rio Arriba County, New Mexico

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 Figure 2, *Site Map*

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 Appendix B, *Waste Disposal Documentation*
 Appendix C, *Field Notes with EPA 418.1 Field Screening Reports*
 Appendix D, *Laboratory Analytical Reports*
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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



Felipe Aragon, CHMM, CES
Environmental Assistant Manager
faragon@envirotech-inc.com

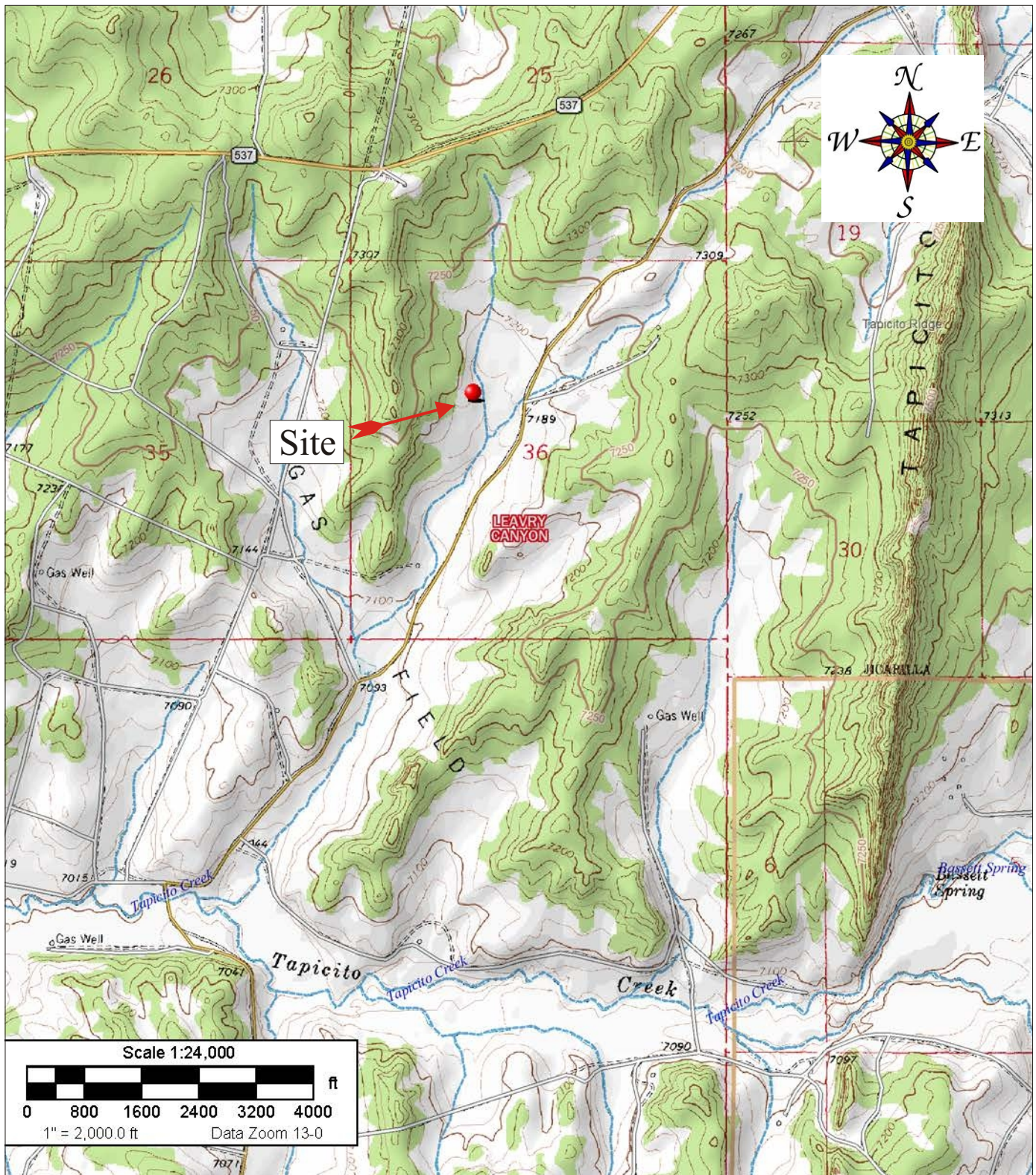
Figures



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		 ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Vicinity Map	
			Figure #1	
Project Number: 12035-0162	Date Drawn: 02/11/2021		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

- | | | | | | |
|----------|---|-------|---------|---|-------|
| Orange | - | SC-01 | Magenta | - | SC-05 |
| Dark Red | - | SC-02 | Green | - | SC-06 |
| Grey | - | SC-03 | Cyan | - | SC-07 |
| Purple | - | SC-04 | Blue | - | SC-08 |

* Samples collected for confirmation laboratory analysis



envirotech

Released to: Imaging 2/8/2022 12:09:20 PM 505-632-0615

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)
NMOCD Release Closure Criteria (Table 1 - 19.15.29.12 NMAC)			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

Site Name:	Jicarilla 95 7B			
API #:	30-039-26854			
Lat/Long:	36.532089, -107.099235			
TRS:	Unit F Sec 36 T27N R 3W			
Land Jurisdiction:	Jicarilla			
County:	Rio Arriba			
Wellhead Protection Area Assessment				
Water Source Type (well/spring/stock pond)	ID	Latitude	Longitude	Distance
Distance to Nearest Significant Watercourse				
unamed tributary to Tapacito Creek runs through location				
Depth to Groundwater Determination				
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				
Sensitive Receptor Determination				
<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
DTW Determination	≤50 <input checked="" type="checkbox"/>	50-100 <input type="checkbox"/>	>100 <input type="checkbox"/>	
Benzene	10	10	10	
BTEX (mg/kg)	50	50	50	
8015 TPH (GRO/DRO) (mg/kg)	Not Applicable	1,000	1,000	
8015 TPH (GRO/DRO/MRO) (mg/kg)	100	2,500	2,500	
Chlorides (mg/kg)	600	10,000	20,000	



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



New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found.

PLSS Search:

Township: 27N **Range:** 03W

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

2/10/21 12:21 PM

WELLS WITH WELL LOG INFORMATION



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

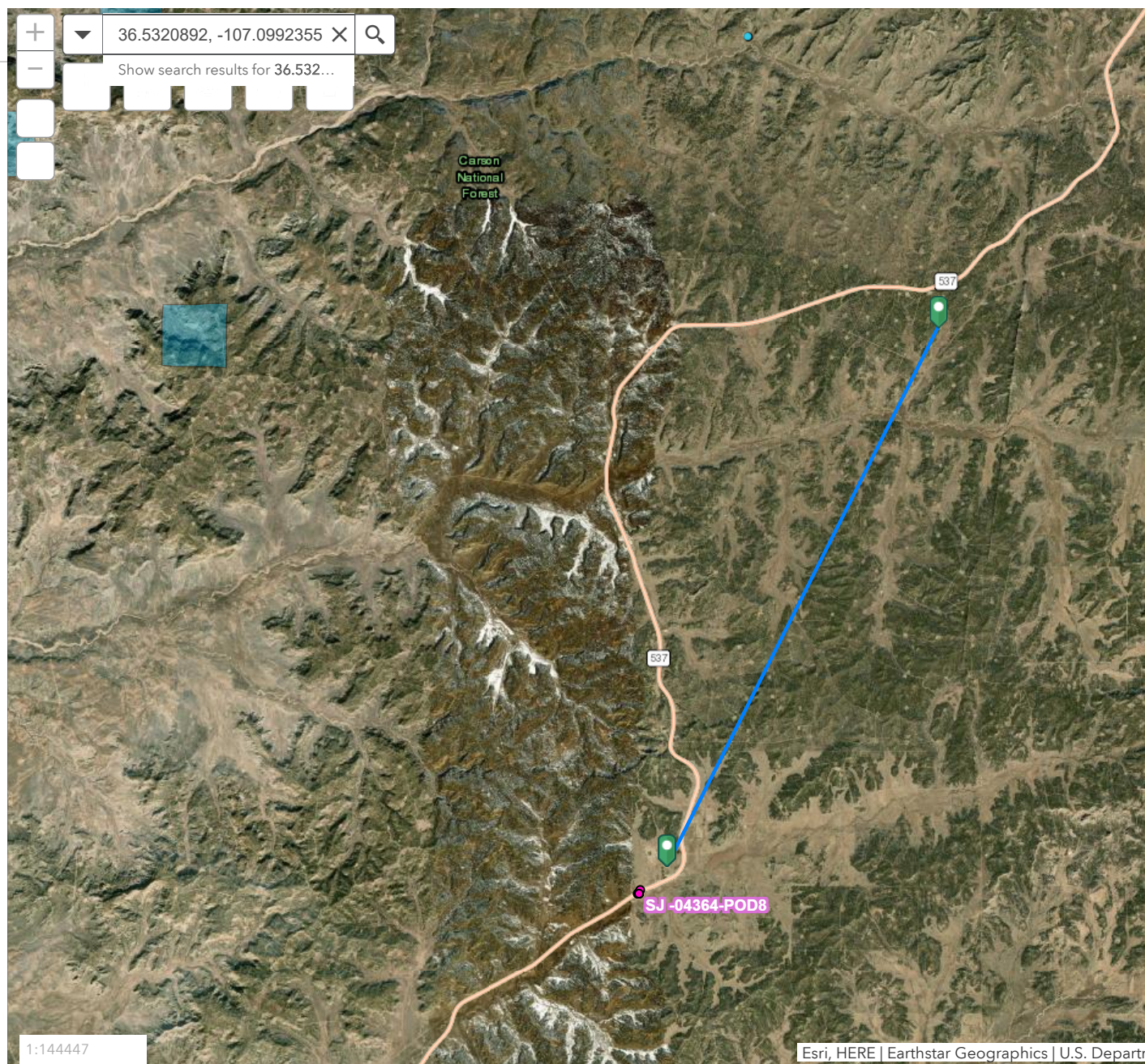
| Miles

Measurement Result

9.45 Miles

Clear

Press CTRL to enable snapping



1:144447

2mi

-106.988 36.604 Degrees

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

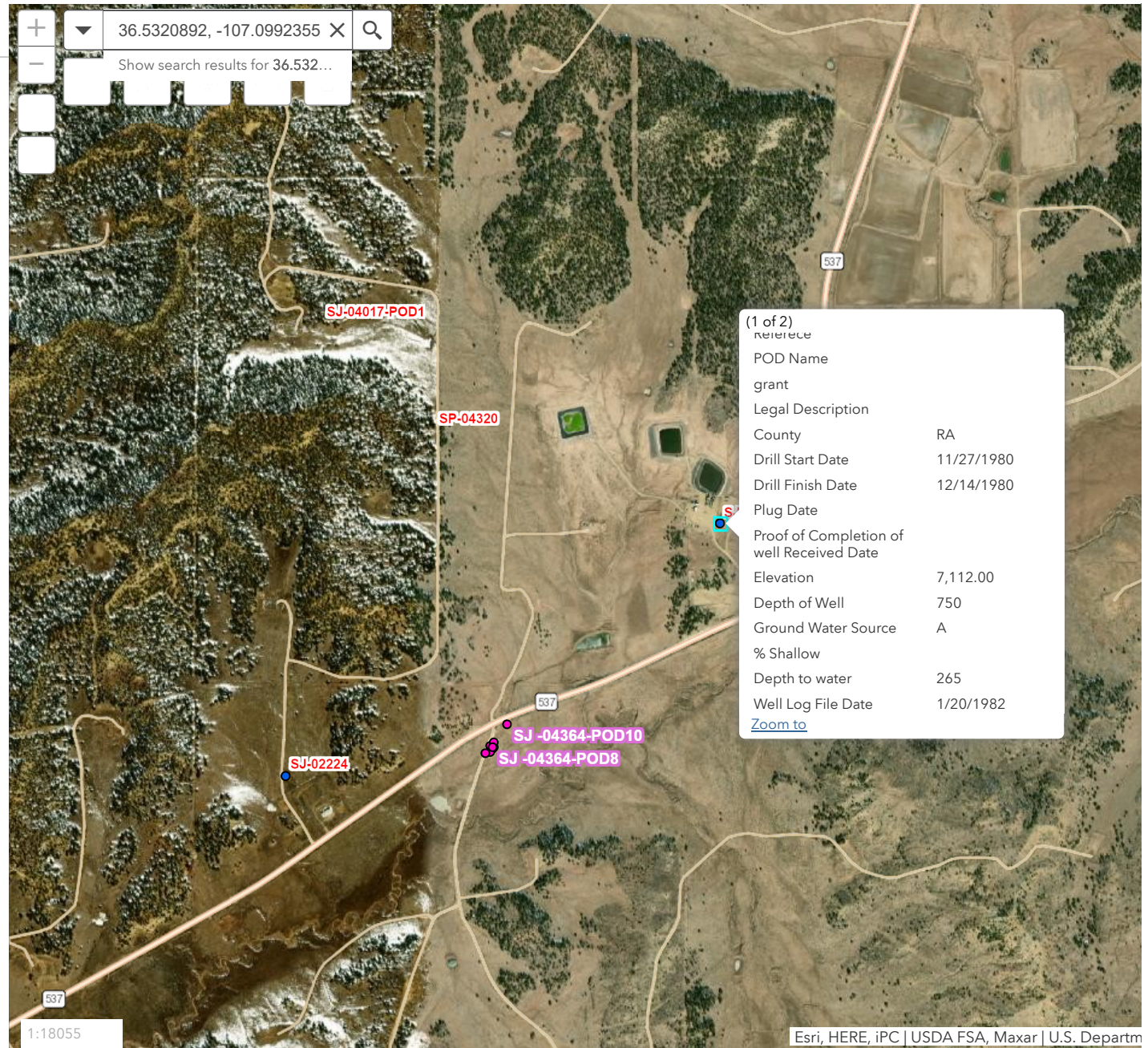


Water Right Regulations

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

Live Stream Gauges v1

Status



Appendix B



Waste Disposal Documentation



Practical Solutions for a Better Tomorrow

Bill of Lading

GENERATOR Logos

POINT OF ORIGIN Jic 95.78

TRANSPORTER Kelley oil Field

DATE 01-29-21 JOB # 12035-0155

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

[illegible]

Generator Onsite Contact	Phone
--------------------------	-------

Signatures required prior to distribution of the legal document.

DISTRIBUTION: **White** - Company Records, **Yellow** - Billing, **Pink** - Customer, **Goldenrod** - LF Copy

SAN JUAN PRINTING 021971E

K.O.F.

BOL# 68093

CHLORIDE TESTING / PAINT FILTER TESTING

DATE 01-29-21 TIME 1630

Attach test strip here

CUSTOMER LogosSITE Jic 95 7BDRIVER Emm ThreshSAMPLE Soil Straight ☒ With Dirt ☐CHLORIDE TEST -299 mg/KgACCEPTED YES ☒ NO ☐PAINT FILTER TEST Time started 1630 Time completed 1640PASS 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

Bill of Lading

MANIFEST # 68115
GENERATOR LOGO's
POINT OF ORIGIN JICARILLA 95-7B
TRANSPORTER KELLEY'S OILFIELD
DATE 2/3/21 JOB # 12035-0155

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	DESTINATION	MATERIAL	GRID	YDS	BBLs	DRUMS	TKT#	TRK#	TIME	DRIVER SIGNATURE
1	LFI #5	Cont Soil	C23	<u>20</u> 20	-	-	-	5105	1605	Emeyson Norbett
RESULTS			LANDFARM EMPLOYEE [Signature] Gmc	NOTES						
2299	CHLORIDE TEST	1								
	CHLORIDE TEST			<input type="checkbox"/> Soil w/ Debris <input type="checkbox"/> After Hours/Weekend Reveal <input type="checkbox"/> Scrape Out <input type="checkbox"/> Wash Out						
	CHLORIDE TEST			By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load. Landfarm employee signature is certification of the above material being received and placed accordingly.						
PASS	PAINT FILTER TEST	1								

Generator Onsite Contact _____ Phone _____

Signatures required prior to distribution of the legal document.

DISTRIBUTION: **White** - Company Records, **Yellow** - Billing, **Pink** - Customer, **Goldenrod** - LF Copy

SAN JUAN PRINTING 021971E

BOL# 68115

CHLORIDE TESTING / PAINT FILTER TESTING

DATE 2/3/21 TIME 1605

Attach test strip here

CUSTOMER LOGO'sSITE JICARUA 95-7BDRIVER K. EMMANUELSAMPLE ☒ (Soil) Straight _____ With Dirt _____CHLORIDE TEST -299 mg/KgACCEPTED YES ☒ NO _____PAINT FILTER TEST Time started 1605 Time completed 1610PASS YES ☒ NO _____SAMPLER/ANALYST [Signature]

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



Appendix C

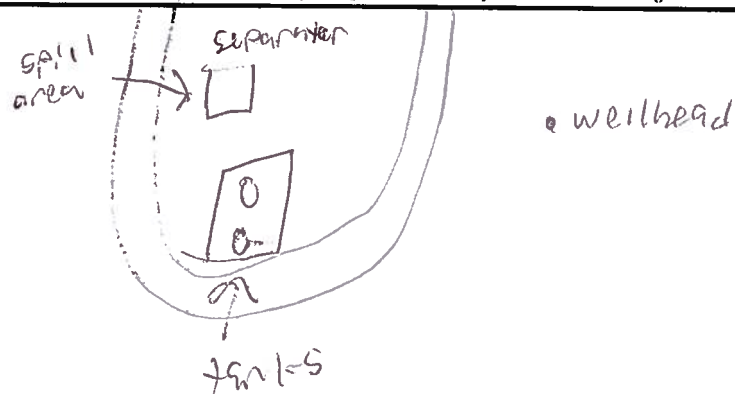


Field Notes with EPA 418.1 Field Screening Reports




Practical Solutions for a Better Tomorrow

[illegible]

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

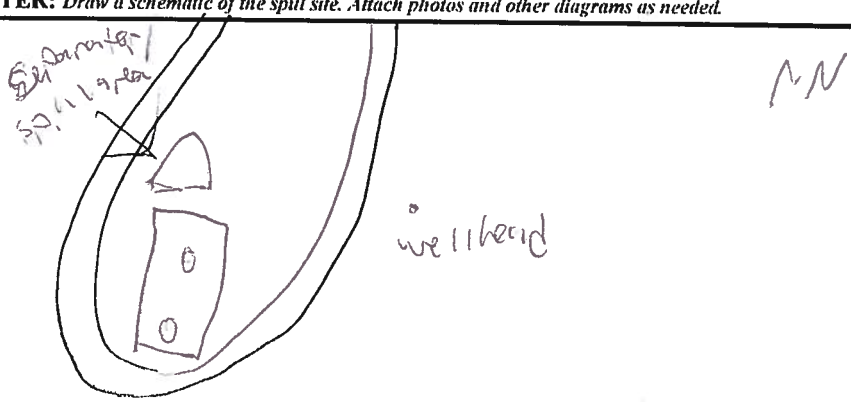

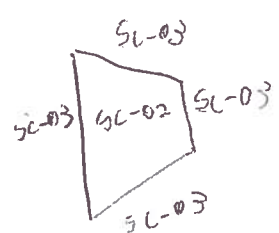
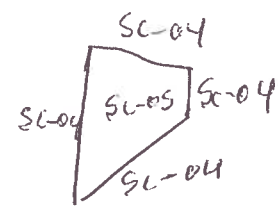
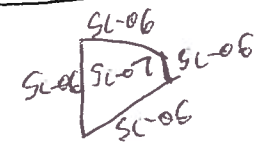
WO #:

Who Ordered/Site Rep:

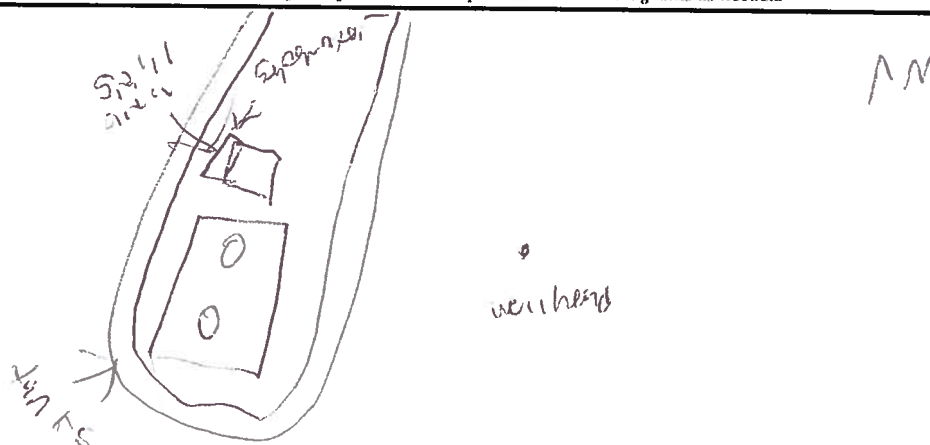
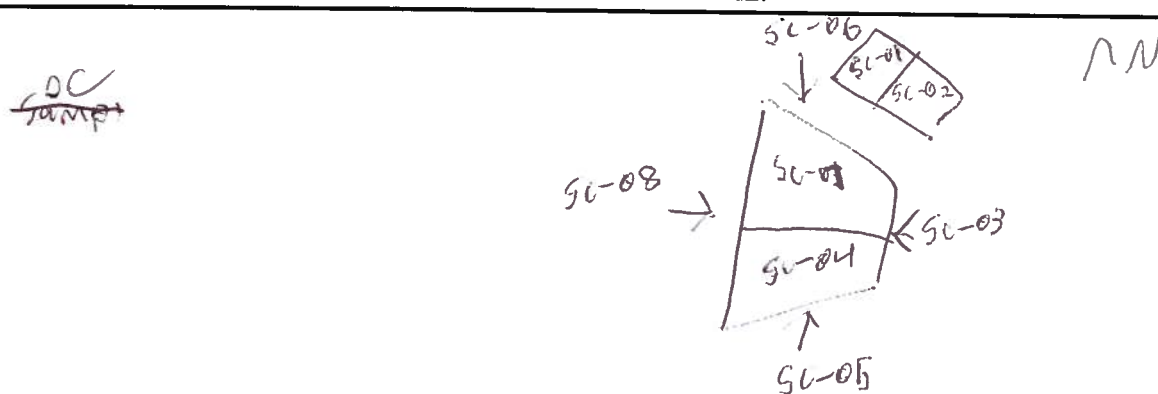
CLIENT: <u>10905</u> CLIENT/JOB #: <u>12039-0102</u> START DATE: <u>2/2/21</u> FINISH DATE: _____ Page # _____ of _____	 envirotech <small>(800) 632-0615 (800) 362-1870 6788 U.S. Hwy 84, Farmington, NM 87401</small>	Envmtl. Spclst: <u>DC</u> C.O.C. No: _____ LAT <u>36.5320892</u> LONG <u>-107.0992355</u>					
Field Report: Spill Closure Verification							
LOCATION: Name: <u>Jicarilla</u> <u>95</u> Well #: <u>7B</u> API: <u>30-039-26954</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>27N</u> RNG: <u>3W</u> PM: _____ Spill Located Approximately: <u>70</u> FT. FROM <u>wellhead</u> Excavation Approx: <u>15</u> FT. X <u>19</u> FT. X <u>8</u> FT. Cubic Yardage: <u>~84</u> Disposal Facility: _____ Land Use: <u>location</u> Land Owner: <u>Jicarilla</u> REGULATORY AGENCY: <u>State/Jicarilla</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
	200 std	12:02	198	752	-	12:04	
	500 std	12:05	496	1954	-	/	
	1250 std	12:08	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	/	/	
	1250 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 waits TPH ppm below 100 on field screening before turning in samples.						

Page 2 Of 3

Released to Imaging: 2/8/2022 12:09:20 PM

SPILL PERIMETER: Draw a schematic of the spill site. Attach photos and other diagrams as needed.		
		
EXCAVATION PROFILE:		
<p>SC-01</p> 		 
<p>NOTES:</p> <p>Wall samples were taken from middle of walls</p> <p>Base samples taken in formation</p>		
WO #:		Who Ordered/Site Rep:

Page 1 Of 2

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

Samples taken in 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.



Analyst

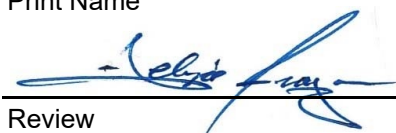
for

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)
-----------	--------------------------	--------------------------

Total Petroleum Hydrocarbons	236	5.0
-------------------------------------	------------	------------

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

Damon Carter
Printed

Felipe Aragon
Review

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)
-----------	--------------------------	--------------------------

Total Petroleum Hydrocarbons	352	5.0
-------------------------------------	------------	------------

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

Damon Carter
Printed

Felipe Aragon
Review

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)
-----------	--------------------------	--------------------------

Total Petroleum Hydrocarbons	332	5.0
-------------------------------------	------------	------------

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

Damon Carter
Printed

Felipe Aragon
Review

Felipe Aragon, CES, CHMM
Printed

Appendix D



Laboratory Analytical Report



Practical Solutions for a Better Tomorrow

Report to:
Felipe Aragon



5796 U.S. Hwy 64
Farmington, NM 87401

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



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

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,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

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

SC-01

E102008-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: 1,2-Dichloroethane-d4	108 %	70-130		02/04/21	02/05/21	
Surrogate: Toluene-d8	96.9 %	70-130		02/04/21	02/05/21	
Surrogate: Bromofluorobenzene	92.2 %	70-130		02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
Surrogate: 1,2-Dichloroethane-d4	108 %	70-130		02/04/21	02/05/21	
Surrogate: Toluene-d8	96.9 %	70-130		02/04/21	02/05/21	
Surrogate: Bromofluorobenzene	92.2 %	70-130		02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	92.1 %	50-200		02/04/21	02/04/21	
Anions by EPA 300.0/9056A						
	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

Reported:
2/8/2021 12:52:14PM

SC-02

E102008-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		97.2 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		91.2 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		97.2 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		91.2 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		103 %	50-200	02/04/21	02/04/21	
Anions by EPA 300.0/9056A						
	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

Reported:
2/8/2021 12:52:14PM

SC-03

E102008-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: 1,2-Dichloroethane-d4	99.5 %	70-130		02/04/21	02/05/21	
Surrogate: Toluene-d8	97.7 %	70-130		02/04/21	02/05/21	
Surrogate: Bromofluorobenzene	93.2 %	70-130		02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
Surrogate: 1,2-Dichloroethane-d4	99.5 %	70-130		02/04/21	02/05/21	
Surrogate: Toluene-d8	97.7 %	70-130		02/04/21	02/05/21	
Surrogate: Bromofluorobenzene	93.2 %	70-130		02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane	97.8 %	50-200		02/04/21	02/04/21	
Anions by EPA 300.0/9056A						
	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

Reported:
2/8/2021 12:52:14PM

SC-04

E102008-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		97.1 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		92.2 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		97.1 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		92.2 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		101 %	50-200	02/04/21	02/04/21	
Anions by EPA 300.0/9056A						
	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

Reported:
2/8/2021 12:52:14PM

SC-05

E102008-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		99.5 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		95.6 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		99.5 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		95.6 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		97.0 %	50-200	02/04/21	02/04/21	
Anions by EPA 300.0/9056A						
	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

Reported:
2/8/2021 12:52:14PM

SC-06

E102008-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		97.5 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		94.0 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		97.5 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		94.0 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		99.1 %	50-200	02/04/21	02/04/21	
Anions by EPA 300.0/9056A						
	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

Reported:
2/8/2021 12:52:14PM

SC-07

E102008-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: 1,2-Dichloroethane-d4		103 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		98.2 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		94.6 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
Surrogate: 1,2-Dichloroethane-d4		103 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		98.2 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		94.6 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		101 %	50-200	02/04/21	02/04/21	
Anions by EPA 300.0/9056A						
	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

Reported:
2/8/2021 12:52:14PM

SC-08

E102008-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	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	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		97.6 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		94.1 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2106027
Gasoline Range Organics (C6-C10)	ND	20.0	1	02/04/21	02/05/21	
Surrogate: 1,2-Dichloroethane-d4		111 %	70-130	02/04/21	02/05/21	
Surrogate: Toluene-d8		97.6 %	70-130	02/04/21	02/05/21	
Surrogate: Bromofluorobenzene		94.1 %	70-130	02/04/21	02/05/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	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	
Surrogate: n-Nonane		106 %	50-200	02/04/21	02/04/21	
Anions by EPA 300.0/9056A						
	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	Project Name:	Jicarilla 95-7B Confirmation Sampling	Reported:
2010 Afton Place	Project Number:	12035-0159	
Farmington NM, 87401	Project Manager:	Felipe Aragon	2/8/2021 12:52:14PM

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	Project Name:	Jicarilla 95-7B Confirmation Sampling	Reported:
2010 Afton Place	Project Number:	12035-0159	
Farmington NM, 87401	Project Manager:	Felipe Aragon	2/8/2021 12:52:14PM

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	Project Name:	Jicarilla 95-7B Confirmation Sampling	Reported:
2010 Afton Place	Project Number:	12035-0159	
Farmington NM, 87401	Project Manager:	Felipe Aragon	2/8/2021 12:52:14PM

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	Project Name:	Jicarilla 95-7B Confirmation Sampling	Reported:
2010 Afton Place	Project Number:	12035-0159	
Farmington NM, 87401	Project Manager:	Felipe Aragon	2/8/2021 12:52:14PM

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
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LCS (2106029-BS1)

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

Chloride	249	20.0	250	99.7	90-110
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Matrix Spike (2106029-MS1)

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

Chloride	253	20.0	250	ND	101	80-120
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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
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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	Project Name:	Jicarilla 95-7B Confirmation Sampling	
2010 Afton Place	Project Number:	12035-0159	Reported:
Farmington NM, 87401	Project Manager:	Felipe Aragon	02/08/21 12:52

- 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.



Project Information

Chain of Custody

Page 1 of 1

Client: Logos				Report Attention				Lab Use Only				TAT		EPA Program							
Project: Jicarilla 95-7B Confirmation Sampling				Report due by:				Lab WO#		Job Number		1D	3D	RCRA	CWA	SDWA					
Project Manager: F.Aragon				Email:				E 102008		12035-0159		X									
Address:				Address:				Analysis and Method										State			
City, State, Zip				City, State, Zip														NM CO UT AZ			
Email: Gcrabtree Dcarter Faragon Tknigh Bhall				Phone:														X			
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)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C _____
<i>Damon Carter</i>	2/4/21	8:23	<i>Therese</i>	2-4-21	8:23	
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 laboratory 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

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

Carrier: Damon Carter**Comments/Resolution**

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

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

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