

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	ncs1929540748
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@logosresourcesllc.com	Incident # (assigned by OCD)	ncs1929540748
Contact mailing address	2010 Afton Place, Farmington NM 87401		

Location of Release Source

Latitude 36.8814392 Longitude -107.2900925
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Rosa Unit 354A	Site Type	Well
Date Release Discovered	9/6/2019	API# (if applicable)	30-039-27832

Unit Letter	Section	Township	Range	County
I	19	31N	R4W	Rio Arriba

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

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 checked="" type="checkbox"/> Produced Water	Volume Released (bbls) >5bbls	Volume Recovered (bbls) 1bbl
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Correction to the submittal on 10/02/2019.

The cause of the release was due to signs of recent stuffing box leak, per OCD inspector estimated volume release was greater than 5bbls.

The release ran off location down side of access road towards storm water catchment with culvert. At the time, the well head cellar contained approximately 1bbl of fluids. The release was not leaking at the time the inspector found it.

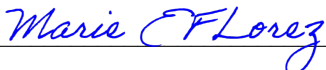
Oil Conservation Division

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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: 	Date: 06/15/2021
email: mflorez@logosresourcesllc.com	Telephone: 505-419-8420
<u>OCD Only</u>	
Received by: _____	Date: _____

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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>>93'</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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

Oil Conservation Division

Incident ID	ncs1929540748
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Marie E. Florez Title: Regulatory Specialist

Signature: Marie E Florez Date: 6/15/2021

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

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
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Application ID	

Closure

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

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

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Marie E.Florez Title: Regulatory Specialist
Signature: Marie E Florez Date: 6/15/2021
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: Nelson Velez Date: 01/21/2022
Printed Name: Nelson Velez Title: Environmental Specialist – Adv



June 16, 2021

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

Incident # nCS1929540748

RE: Signs of recent stuffing box leak, estimate volume was greater than 5 bbls, release ran off location downside of access road towards storm water catchment with culvert. Well head cellar still contains approximately 1 bbl of fluids. Not currently leaking. Rosa Unit 354A well site. Located in Section 19, Township 31 North, Range 4 West, Unit I Rio Arriba, New Mexico.

Dear Mr. Smith,

On September 9, 2019, LOGOS Operating, LLC cleaned up the remainder of the storm water from stuffing box and from the contaminated soil. The affected area was treated with (1) 50lb bag of Gypsum, spread and raked in the soil.

Notification for final sampling was requested to be performed on October 9, 2019. The samples were above remediation level. The first results for SS1 identified the Chloride content @ 612 mg/kg and SS2 identified the Chloride content @ 602 mg/kg which is above the remediation level of 600 mg/kg. The delineation was not shown in this report due to change in staff and lost files.

Unsure if notification request was submitted for confirmation sample taken on November 9, 2019. The samples were below remediation level. The second result for SS1 identified the Chloride content @ ND mg/kg and results for SS2 identified the Chloride content @ 114 mg/kg which is below the remediation level of 600 mg/kg. The delineation was not shown in this report.

The application was rejected on April 21, 2020 thru email by NMOCD due to closure report does not meet requirements of 19.15.29.12 NMAC executive summary, also does not match sample results/dates, no sampling notice attached/provided.

On May 1, 2020, LOGOS went to location and re-treated the affected area with (1) 50lb bag of Gypsum, spread and raked in the soil.

LOGOS had not submitted the closure report due to change in staff, environmental learning curves and workload.

Notification for final sampling was requested to be performed on December 29, 2021. The final confirmation testing was cancelled, and LOGOS notified NMOCD due to weather and frozen ground.

Notification for final sampling was requested once again to be performed on March 9, 2021. **The three of the 4 samples passed** and one failed.

Soil samples were collected at 1-foot intervals in each boring.

SC-1@1'	SC-3@1'
SC-1@3'	SC-3@3'

The 2 sets of samples were placed into a ziplock bag then into individual laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. The samples were analyzed for TPH as gasoline diesel, and oil range organics (GRO/DRO/ORO) using EPA Method 8015D; benzene, Toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B and chlorides using EPA Method 300.0.

Final Sample Results								
Sample Description	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)
19.15.29.13 (D) NMAC			100 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
19.15.29.12 NMAC			1000 mg/kg					10,000 mg/kg
			2500 mg/kg					
SC-1 @ 1'	3/18/2021	1 foot	ND	ND	ND	ND	ND	878
SC-1 @ 3'	3/18/2021	3 foot	ND	ND	ND	ND	ND	83.2
SC-2 @ 1'	3/18/2021	1 foot	ND	ND	50.3	ND	ND	406
SC-2 @ 3'	3/18/2021	3 foot	ND	ND	ND	ND	ND	98.1

3/23/2021 – Notified OCD to request an extension to re-treat SC-1 @ 1' due to high levels. LOGOS was denied for an additional extension. OCD informed LOGOS to begin remediation.

4/8/2021 -LOGOS scheduled with Kelley Oilfield Services and began remediation within the SS1 area, by digging down to two feet with a backhoe along contaminated area, removed and disposed 10 yards of contaminated soil at Industrial Ecosystems INC., (IEI) landfarm. The spill path for the remediated area is identified in the red box on the Ariel map.

4/19/2021-Notification for final confirmation sampling was requested to the surface owner (BLM) and OCD to be performed on Wednesday, 4/21/2021.

4/21/2021 - A composite grab sample was collected at two feet along the contaminated area after remediation was complete. The samples were placed in a Ziplock bag then placed into an individual laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. The samples were analyzed for TPH as gasoline diesel, and oil range organics (GRO/DRO/ORO) using EPA Method 8015D; benzene, Toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B and chlorides using EPA Method 300.0.

Final Sample Results								
Sample Description	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)
19.15.29.13 (D) NMAC			100 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
19.15.29.12 NMAC			1000 mg/kg					10,000 mg/kg
			2500 mg/kg					mg/kg
Grab sample	4/21/2021	2 feet	ND	ND	ND	ND	ND	64.2

The release in the SS2 area was sampled and passed on 3/11/21. The release was remediated down to 2' in SS 1 Area and passed on 4/21/2021. The depth to groundwater was assessed as being 93 feet. The groundwater data is documented in the enclosed TOPO Site Criteria. The Rosa Unit 43-Cathodic well was drilled to 500' and identified GW @ 80' with an elevation of 6572' and an elevation for the Rosa Unit 354A is at 6585' with an estimated GW > 93'.

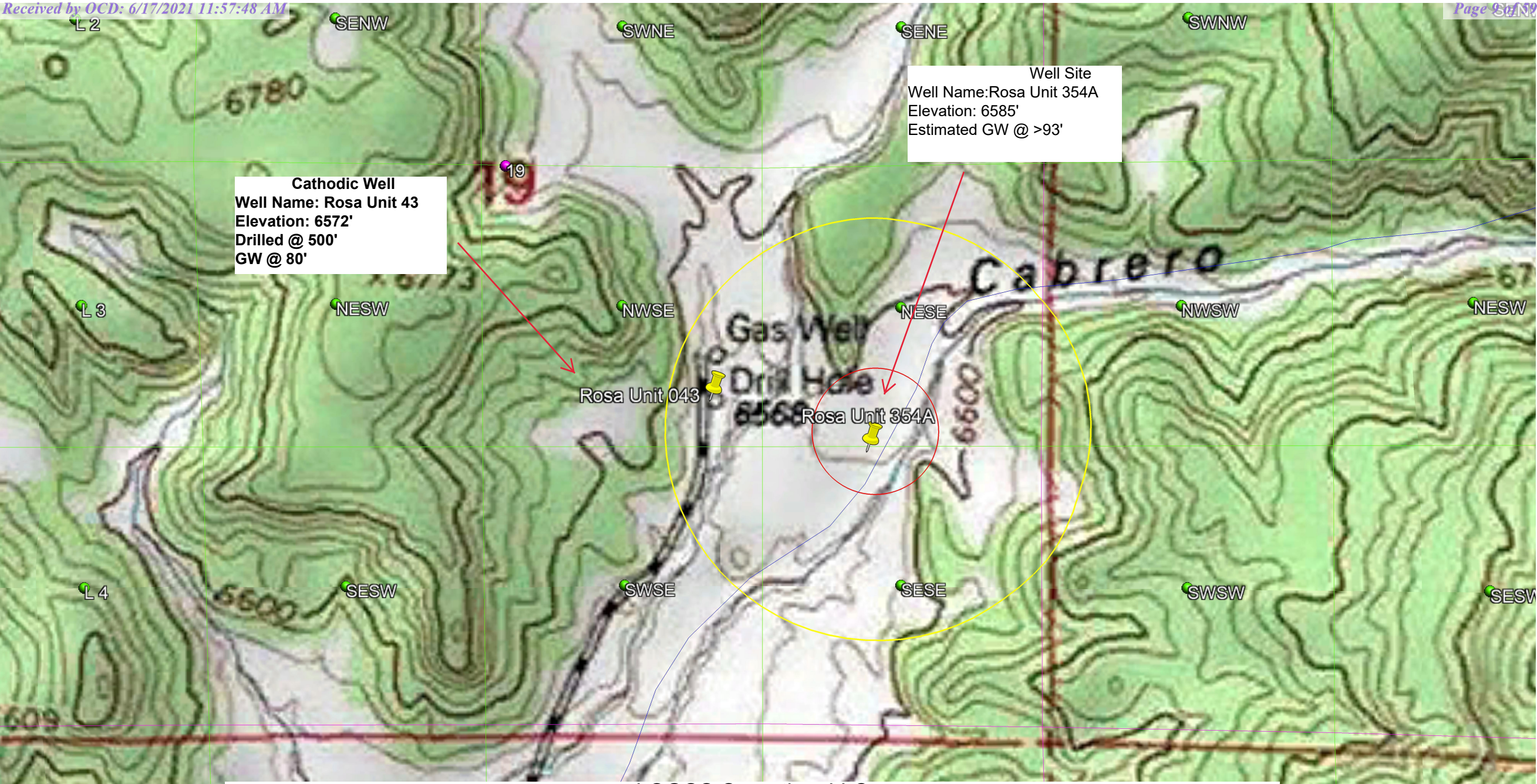
Therefore, based on the gypsum treatments and remediation on SS1 and the laboratory analytical results confirms that concentrations of contaminants are below the applicable release, remediation/reclamation limits and no further action is required. LOGOS request a release and remediation/reclamation closure approval from NMOCD.

Sincerely,

Marie E. Florez

Marie E. Florez
Regulatory Specialist
Cell: 505-419-8420
mflorez@logosresourcesllc.com





LOGOS Operating, LLC
Hydrology Map
API: 30-039-27832
Unit I, Section 19, T31N, R4W
Rio Arriba County, NM



DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS IN
NORTHWEST NEW MEXICO

OPERATOR: Williams Production Company LOCATION: J 19 31 4 LEASE NUMBER: SF-078889

NAME OF WELL/WELLS OR PIPELINE SERVICED: ROSA UNIT #043 DK
DUALWELL N/A

30-039-07954

ELEVATION: 6572' GR COMPLETION DATE: 10/20/87 TOTAL DEPTH: 500 ft. LAND TYPE: FED

CASING: 7-5/8" 26.4# K-55 Set @ N/A ft. Casing is not cemented.

CEMENT PLUG--Top:N/A' Bottom: N/A' Used 0 sx. Class "B" (1.18 cu.ft./sk).

WATER DEPTH: 80 ' Water zone thickness not available. WATER DESCRIPTION: Fresh

DEPTH OF GAS: N/A '

COKE: 6345 lbs. of Metallurgical coke breeze used.

NUMBER & TYPE OF ANODES: 10-D TOP ANODE @ 315 ft. BOTTOM ANODE @ 440 ft.

VENT PIPE: 1" PVC Set @ 500 ft. Vent pipe perforated from 295 ft. to 500 ft.

REMARKS: _____

Top of Cement @ N/A'

Casing @ N/A'

Bottom of Cement @ N/A'

Top Anode @ 315'

10-D Anodes -----

Bottom Anode @ 440'

----- Perforated Vent Pipe

6-3/4" Hole to 500'

RECEIVED
DEC 11 1991
OIL CON. DIV.
DIST. 3

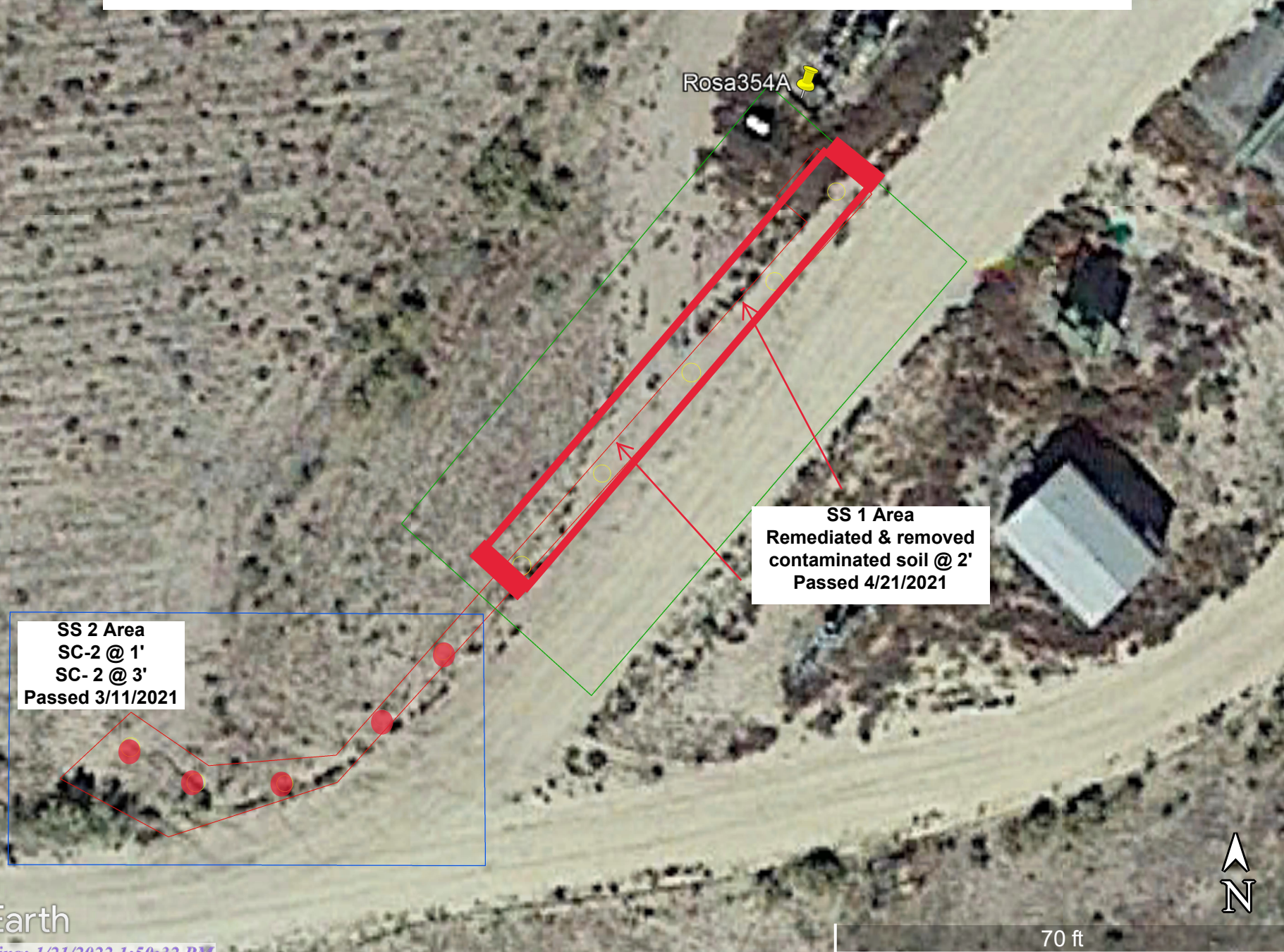
LOGOS Opearting, LLC

API: 30-039-27832

Unit I, Section 19, T31N, R4W

Lat/Long: 36.8814392; -107.2900925 NAD83

Rio Arriba County, NM



Field Notes for Spill Closure

Well Name: Rosa Unit 354ADate of Arrival: 3/18/2021**Observe Area**Removed contaminated soils ☒ Yes ☐ No

What chemical was used to clean-up contaminated area:

gypsum, 1 50lb spread and raked into affected area

Take Picture: ☒ Before ☒ AfterEntire Spill Containment: ☒ Dry ☐ WetIf wet:
Rain, Moist, etc...**Site Delineation****Sample 1:**☐ Composite (Grab Sample) ☐ Yes ☐ NoWas (2) five-point sample taken: ☐ Yes ☐ No**Sample 2:**☐ Delineation (Hand Auger) ☐ Yes ☐ NoDepths **SB - 1** ☒ 1' ☐ 2' ☒ 3' ☐ 4'**SB - 2** ☒ 1' ☐ 2' ☒ 3' ☐ 4'**SB - 3** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**SB - 4** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**Soil**Did soil have odor: ☐ Yes ☒ No

If so, what kind of odor:

No odor

Was soil discolored: ☒ Yes ☐ No

If so, what color:

Was the soil sandy: ☐ Yes ☒ No

Field Notes for Spill Closure

Well Name: Rosa Unit 354ADate of Arrival: 4/21/2021**Observe Area**Removed contaminated soils ☒ Yes ☐ No

What chemical was used to clean-up contaminated area:

gypsum, 1 50lb spread and raked into affected area
remediated 4/8/2021 then re-sampled SS1Take Picture: ☒ Before ☒ AfterEntire Spill Containment: ☒ Dry ☐ WetIf wet:
Rain, Moist, etc...**Site Delineation****Sample 1:**☒ Composite (Grab Sample) ☒ Yes ☐ NoWas (2) five-point sample taken: ☐ Yes ☐ No**Sample 2:**☐ Delineation (Hand Auger) ☐ Yes ☐ NoDepths **SB - 1** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**SB - 2** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**SB - 3** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**SB - 4** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**Soil**Did soil have odor: ☐ Yes ☒ No

If so, what kind of odor:

No odor

Was soil discolored: ☒ Yes ☐ No

If so, what color:

Was the soil sandy: ☐ Yes ☒ No

Field Notes for Spill Closure

Well Name: Rosa Unit 354ADate of Arrival: 5/1/2019**Observe Area**Removed contaminated soils ☒ Yes ☐ No

What chemical was used to clean-up contaminated area:

gypsum, 1 50lb spread and raked into affected area

Take Picture: ☒ Before ☒ AfterEntire Spill Containment: ☒ Dry ☐ WetIf wet:
Rain, Moist, etc...**Site Delineation****Sample 1:**☒ Composite (Grab Sample) ☒ Yes ☐ NoWas (2) five-point sample taken: ☐ Yes ☐ No**Sample 2:**☐ Delineation (Hand Auger) ☐ Yes ☐ NoDepths **SB - 1** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**SB - 2** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**SB - 3** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**SB - 4** ☐ 1' ☐ 2' ☐ 3' ☐ 4'**Soil**Did soil have odor: ☐ Yes ☒ No

If so, what kind of odor:

Was soil discolored: ☒ Yes ☐ No

If so, what color:

dark soil

Was the soil sandy: ☐ Yes ☒ No

From: [Marie Florez](#)
To: [Smith, Cory, EMNRD](#); [Chase Polledo](#); [Joyner, Ryan N](#)
Cc: [Tamra Sessions](#); [Robert Jordan](#)
Subject: RE: Rosa Unit 354A nCS1929540748
Date: Wednesday, March 24, 2021 8:10:00 AM
Attachments: [image001.jpg](#)
[image002.jpg](#)

Thank you, will do!

Marie E. Florez

mflorez@logosresourcesllc.com



From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Wednesday, March 24, 2021 8:10 AM
To: Marie Florez <mflorez@logosresourcesllc.com>; Chase Polledo <cpolledo@logosresourcesllc.com>; Joyner, Ryan N <rjoyner@blm.gov>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: RE: Rosa Unit 354A nCS1929540748

Marie,

The plan to dig and haul the impacted area is approved by the OCD. Please send in your sampling notice following 19.15.29 NMAC as it gets closer.

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: Marie Florez <mflorez@logosresourcesllc.com>
Sent: Tuesday, March 23, 2021 4:29 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Chase Polledo <cpolledo@logosresourcesllc.com>; Joyner, Ryan N <rjoyner@blm.gov>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>
Subject: [EXT] RE: Rosa Unit 354A nCS1929540748

Corey,

Per our conversation today, LOGOS will not be granted an additional extension on the following location.

See attached: LOGOS will begin remediation on April 8 of the spill path in red as noted within the SS1 Area green box. The SS 2 Area in blue passed.

3/18/2021 – 3rd results for SC 1 @ 1' identified the Chloride content @ 878 mg/kg which is above the remediation level of 600 mg/kg.- **Failed;** The delineation site was captured.

3rd results for SC 1 @ 3' identified the Chloride content @ 83.2 mg/kg which is below the remediation level of 600 mg/kg. – **Passed;** The delineation site was captured.

3rd results for SC 2 @ 1' identified the Chloride content @ 406 mg/kg which is below the remediation level of 600 mg/kg.- **Passed;** The delineation site was captured.

3rd results for SC 2 @ 3' identified the Chloride content @ 98.1 mg/kg which is below the remediation level of 600 mg/kg. – **Passed;** The delineation site was captured.

9/6/2019- Signs of recent stuffing box leak, estimate volume was greater than 5bbls, release ran off location downside of access road towards storm water catchment with culvert. Well head cellar still contains approximately 1bbl of fluids. Not currently leaking. (P1560575-577.jpg)

Thanks,

Marie E. Florez

mflorez@logosresourcesllc.com



From: Marie Florez

Sent: Tuesday, March 9, 2021 2:43 PM

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Chase Polledo <cpolledo@logosresourcesllc.com>; Joyner, Ryan N <rjoyner@blm.gov>

Cc: 'Tamra Sessions' <tsessions@logosresourcesllc.com>; 'Robert Jordan' <rjordan@logosresourcesllc.com>; Etta Trujillo <etrujillo@logosresourcesllc.com>

Subject: RE: Rosa Unit 354A -Notification for final sampling

LOGOS is notifying BLM (Surface owner) and OCD two business days prior to conducting final sampling on the following well.

Date: March 11, 2021 (Thursday)

Time: 10:00am

Incident # ncs1929540748

API: 30-039-27832

Well Name: Rosa Unit 354A

Section: 19

Township: 31N

Range: 4W

Unit Letter: I

Thanks,

Marie E. Florez

mflorez@logosresourcesllc.com



From: Marie Florez

Sent: Wednesday, December 30, 2020 7:23 AM

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

Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>

Subject: RE: Rosa Unit 354A -Notification for final sampling - Cancel

Cory,

LOGOS will need to cancel this until the ground thaws to take samples. We will keep you posted.

Thanks,

Marie E. Florez

mflorez@logosresourcesllc.com



From: Marie Florez

Sent: Tuesday, December 29, 2020 9:01 AM

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

Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan

<rjordan@logosresourcesllc.com>

Subject: Rosa Unit 354A -Notification for final sampling

Importance: High

LOGOS is notifying OCD two business days (including the Holiday) prior to conducting final sampling on the following well.

Date: January 4, 2021 (Monday)

Time: 12:00pm

Incident # ncs1929540748

API: 30-039-27832

Well Name: Rosa Unit 354A

Section: 19

Township: 31N

Range: 4W

Unit Letter: I

Thanks,

Marie E. Florez

Regulatory Specialist

Cell: 505-419-8420

Office: 505-787-2218

mflorez@logosresourcesllc.com



From: [Larissa Farrell](#)
To: ["Smith, Cory, EMNRD"](#); [Miller JJ \(jjmiller@fs.fed.us\)](mailto:jjmiller@fs.fed.us)
Subject: FW: Sampling Notification
Date: Monday, October 7, 2019 4:02:00 PM
Attachments: [image001.jpg](#)

LOGOS Operating will be conducting these sampling events tomorrow (10/8/19). Please call for time if you will be attending.

Thank you,

Larissa Farrell
Environmental/Regulatory Technician
Office: (505) 787-2027
Cell: (505) 419-1100
lfarrell@logosresourcesllc.com



From: Larissa Farrell
Sent: Monday, October 7, 2019 10:19 AM
To: 'Smith, Cory, EMNRD' <Cory.Smith@state.nm.us>; Miller JJ (jjmiller@fs.fed.us) <jjmiller@fs.fed.us>
Subject: Sampling Notification

Good morning,

LOGOS Operating will be conducting confirmation sampling at the following locations on Wednesday October 9, 2019 beginning at 11:00am at the Rosa Unit 354A.

Rosa Unit 354A
30-039-27832
Sec 19 T31N R4W

Rosa Unit 312
30-039-25058
Sec 28 T31N R4W

Rosa Unit 267

30-039-25012
Sec 28 T31N R5W

Please let me know if you have any questions.

Thank you,

Larissa Farrell
Environmental/Regulatory Technician
Office: (505) 787-2027
Cell: (505) 419-1100
lfarrell@logosresourcesllc.com



From: [Marie Florez](#)
To: [Smith, Cory, EMNRD](#); [Chase Polledo](#); [Joyner, Ryan N](#)
Cc: [Tamra Sessions](#); [Robert Jordan](#); [Etta Trujillo](#)
Subject: RE: Rosa Unit 354A -Notification for final sampling
Date: Monday, April 19, 2021 8:12:00 AM
Attachments: [image002.jpg](#)
[image003.jpg](#)
[image004.jpg](#)

Incident # ncs1929540748

LOGOS is notifying BLM (Surface owner) and OCD two business days prior to conducting final sampling on the following well.

Date: April 21, 2021 (Wednesday)

Time: 10:00am

API: 30-039-27832

Well Name: Rosa Unit 354A

Section: 19

Township: 31N

Range: 4W

Unit Letter: I

Thanks,

Marie E. Florez

mflorez@logosresourcesllc.com



From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Tuesday, March 9, 2021 3:56 PM
To: Marie Florez <mflorez@logosresourcesllc.com>; Chase Polledo <cpolledo@logosresourcesllc.com>; Joyner, Ryan N <rjoyner@blm.gov>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>; Etta Trujillo <etrujillo@logosresourcesllc.com>
Subject: RE: Rosa Unit 354A -Notification for final sampling

Marie,

Thank you for the notification for confirmation sampling at the Rosa Unit 354A Incident # ncs1929540748 on March 11, 2021 (Thursday). If an OCD representative is not onsite please sample per 19.15.29 NMAC. If for some reason the date/time changes please contact OCD asap so we can update our schedules. If Logos is requesting alternative sampling sizes please email/call/ send photos

of the sampling area so the OCD can approve an alternative sampling size.

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: Marie Florez <mflorez@logosresourcesllc.com>
Sent: Tuesday, March 9, 2021 2:43 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Chase Polledo <cpolledo@logosresourcesllc.com>; Joyner, Ryan N <rjoyner@blm.gov>
Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>; Etta Trujillo <etrujillo@logosresourcesllc.com>
Subject: [EXT] RE: Rosa Unit 354A -Notification for final sampling

LOGOS is notifying BLM (Surface owner) and OCD two business days prior to conducting final sampling on the following well.

Date: March 11, 2021 (Thursday)
Time: 10:00am

Incident # ncs1929540748

API: 30-039-27832
Well Name: Rosa Unit 354A
Section: 19
Township: 31N
Range: 4W
Unit Letter: I

Thanks,

Marie E. Florez
mflorez@logosresourcesllc.com



From: Marie Florez
Sent: Wednesday, December 30, 2020 7:23 AM
To: 'Smith, Cory, EMNRD' <Cory.Smith@state.nm.us>; 'Powell, Brandon, EMNRD' <Brandon.Powell@state.nm.us>

Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>

Subject: RE: Rosa Unit 354A -Notification for final sampling - Cancel

Cory,

LOGOS will need to cancel this until the ground thaws to take samples. We will keep you posted.

Thanks,

Marie E. Florez

mflorez@logosresourcesllc.com



From: Marie Florez

Sent: Tuesday, December 29, 2020 9:01 AM

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

Cc: Tamra Sessions <tsessions@logosresourcesllc.com>; Robert Jordan <rjordan@logosresourcesllc.com>

Subject: Rosa Unit 354A -Notification for final sampling

Importance: High

LOGOS is notifying OCD two business days (including the Holiday) prior to conducting final sampling on the following well.

Date: January 4, 2021 (Monday)

Time: 12:00pm

Incident # ncs1929540748

API: 30-039-27832

Well Name: Rosa Unit 354A

Section: 19

Township: 31N

Range: 4W

Unit Letter: I

Thanks,

Marie E. Florez

Regulatory Specialist

Cell: 505-419-8420

Office: 505-787-2218

mflorez@logosresourcesllc.com



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

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

Form C-138
Revised August 1, 2011

*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 2010 Afton Place, Farmington NM 87401
2.	Originating Site: Rosa Unit 354A API: 30-039-27832
3.	Location of Material (Street Address, City, State or ULSTR): Unit: I Section 19 T31N R4W
4.	Source and Description of Waste: Contaminated soil
<p>Estimated Volume <u>10 Yards</u> yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) _____ yd³ / bbls</p>	
<p>5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</p> <p>I, <u>Marie E. Florez</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)</p> <p><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</p> <p><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)</p> <p><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)</p> <p style="text-align: center;">GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</p> <p>I, <u>Marie E. Florez</u>, representative for <u>LOGOS Operating, LLC</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.</p>	
5.	Transporter: Various

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Industrial Ecosystems INC. Permit # NM 01-0010B

Address of Facility: 49 CR 3150 Aztec, NM 87410

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: _____

TELEPHONE NO.: _____

Surface Waste Management Facility Authorized Agent

**LOGOS Operating, LLC
Site Pictures
Rosa Unit 354A
Figure 1**



Well Sign



Impacted Area 9/6/2019



Impacted Area 9/6/2019

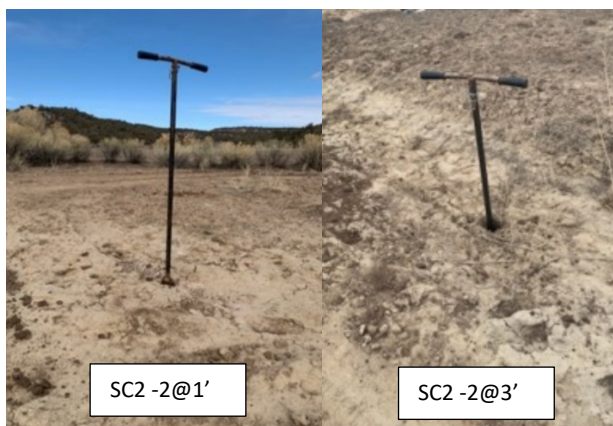
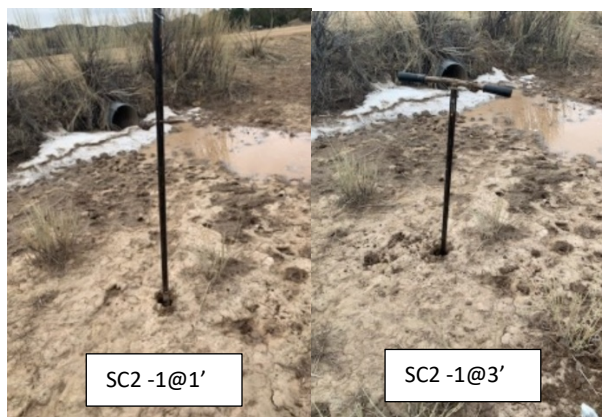


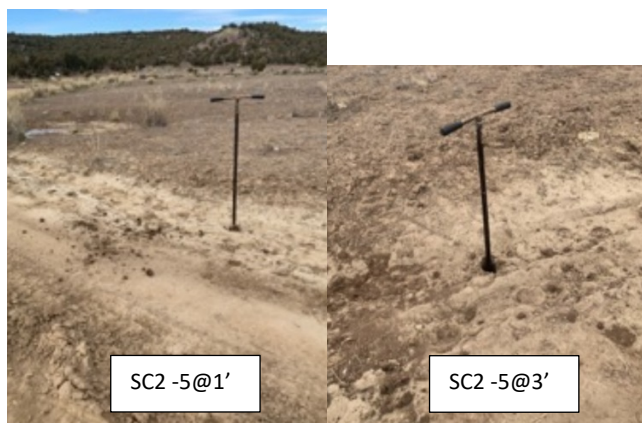
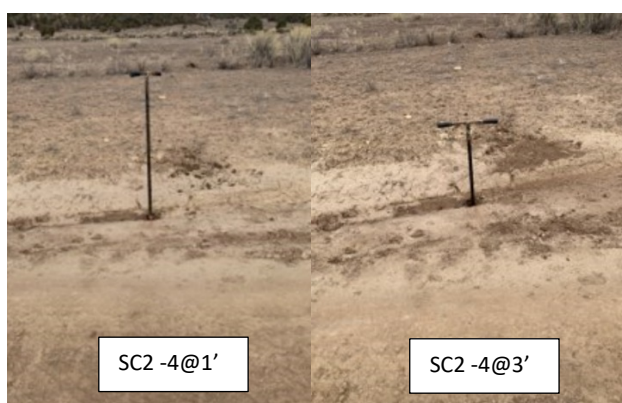
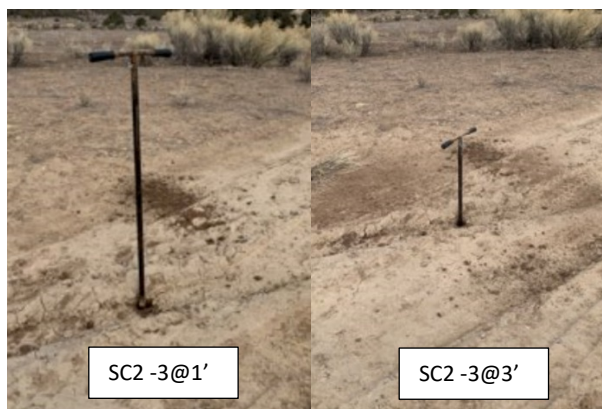
Impacted Area 9/6/2019

SS2 Area

Delineation for Final Sample on 3/11/2021

Passed





**Remediated SS1 Area
4/8/2021**

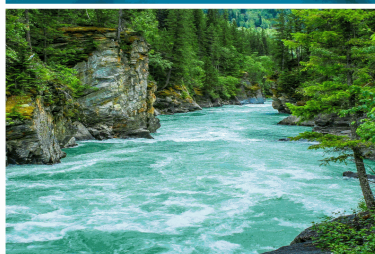


Remediate along SS1 path @ 2'.

**Backfilled SS1 Area
4/28/2021**



Report to:
Robert Jordan



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 Resources

Project Name: Rosa Unit 354A

Work Order: E103052

Job Number: 12035-0114

Received: 3/11/2021

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
3/18/21

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 NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 3/18/21

Robert Jordan
2010 Afton Place
Farmington, NM 87401



Project Name: Rosa Unit 354A
Workorder: E103052
Date Received: 3/11/2021 4:38:00PM

Robert Jordan,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/11/2021 4:38:00PM, under the Project Name: Rosa Unit 354A.

The analytical test results summarized in this report with the Project Name: Rosa Unit 354A 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

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SC-1 at 1'	5
SC-1 at 3'	6
SC-2 at 1'	7
SC-2 at 3'	8
QC Summary Data	9
QC - Volatile Organic Compounds by EPA 8260B	9
QC - Nonhalogenated Organics by EPA 8015D - GRO	10
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	11
QC - Anions by EPA 300.0/9056A	12
Definitions and Notes	13
Chain of Custody etc.	14

Sample Summary

Logos Resources	Project Name:	Rosa Unit 354A	Reported: 03/18/21 16:46
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-1 at 1'	E103052-01A	Soil	03/11/21	03/11/21	Glass Jar, 4 oz.
SC-1 at 3'	E103052-02A	Soil	03/11/21	03/11/21	Glass Jar, 4 oz.
SC-2 at 1'	E103052-03A	Soil	03/11/21	03/11/21	Glass Jar, 4 oz.
SC-2 at 3'	E103052-04A	Soil	03/11/21	03/11/21	Glass Jar, 4 oz.



Sample Data

Logos Resources 2010 Afton Place Farmington NM, 87401	Project Name: Rosa Unit 354A Project Number: 12035-0114 Project Manager: Robert Jordan	Reported: 3/18/2021 4:46:24PM
---	--	---

SC-1 at 1'

E103052-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112002
Benzene	ND	0.0250	1	03/15/21	03/15/21	
Toluene	ND	0.0250	1	03/15/21	03/15/21	
Ethylbenzene	ND	0.0250	1	03/15/21	03/15/21	
p,m-Xylene	ND	0.0500	1	03/15/21	03/15/21	
o-Xylene	ND	0.0250	1	03/15/21	03/15/21	
Total Xylenes	ND	0.0250	1	03/15/21	03/15/21	
Surrogate: 1,2-Dichloroethane-d4	108 %	70-130		03/15/21	03/15/21	
Surrogate: Toluene-d8	101 %	70-130		03/15/21	03/15/21	
Surrogate: Bromofluorobenzene	89.8 %	70-130		03/15/21	03/15/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112002
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/15/21	03/15/21	
Surrogate: 1,2-Dichloroethane-d4	108 %	70-130		03/15/21	03/15/21	
Surrogate: Toluene-d8	101 %	70-130		03/15/21	03/15/21	
Surrogate: Bromofluorobenzene	89.8 %	70-130		03/15/21	03/15/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HT		Batch: 2112024
Diesel Range Organics (C10-C28)	ND	25.0	1	03/17/21	03/18/21	
Oil Range Organics (C28-C35)	ND	50.0	1	03/17/21	03/18/21	
Surrogate: n-Nonane	111 %	50-200		03/17/21	03/18/21	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112015
Chloride	878	20.0	1	03/17/21	03/17/21	



Sample Data

Logos Resources
2010 Afton Place
Farmington NM, 87401

Project Name: Rosa Unit 354A
Project Number: 12035-0114
Project Manager: Robert Jordan

Reported:
3/18/2021 4:46:24PM

SC-1 at 3'

E103052-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112002
Benzene	ND	0.0250	1	03/15/21	03/15/21	
Toluene	ND	0.0250	1	03/15/21	03/15/21	
Ethylbenzene	ND	0.0250	1	03/15/21	03/15/21	
p,m-Xylene	ND	0.0500	1	03/15/21	03/15/21	
o-Xylene	ND	0.0250	1	03/15/21	03/15/21	
Total Xylenes	ND	0.0250	1	03/15/21	03/15/21	
Surrogate: 1,2-Dichloroethane-d4		104 %	70-130	03/15/21	03/15/21	
Surrogate: Toluene-d8		103 %	70-130	03/15/21	03/15/21	
Surrogate: Bromofluorobenzene		90.8 %	70-130	03/15/21	03/15/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112002
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/15/21	03/15/21	
Surrogate: 1,2-Dichloroethane-d4		104 %	70-130	03/15/21	03/15/21	
Surrogate: Toluene-d8		103 %	70-130	03/15/21	03/15/21	
Surrogate: Bromofluorobenzene		90.8 %	70-130	03/15/21	03/15/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HT		Batch: 2112024
Diesel Range Organics (C10-C28)	ND	25.0	1	03/17/21	03/18/21	
Oil Range Organics (C28-C35)	ND	50.0	1	03/17/21	03/18/21	
Surrogate: n-Nonane		110 %	50-200	03/17/21	03/18/21	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112015
Chloride	83.2	20.0	1	03/17/21	03/17/21	



Sample Data

Logos Resources
2010 Afton Place
Farmington NM, 87401

Project Name: Rosa Unit 354A
Project Number: 12035-0114
Project Manager: Robert Jordan

Reported:
3/18/2021 4:46:24PM

SC-2 at 1'

E103052-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112002
Benzene	ND	0.0250	1	03/15/21	03/16/21	
Toluene	ND	0.0250	1	03/15/21	03/16/21	
Ethylbenzene	ND	0.0250	1	03/15/21	03/16/21	
p,m-Xylene	ND	0.0500	1	03/15/21	03/16/21	
o-Xylene	ND	0.0250	1	03/15/21	03/16/21	
Total Xylenes	ND	0.0250	1	03/15/21	03/16/21	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	03/15/21	03/16/21	
Surrogate: Toluene-d8		101 %	70-130	03/15/21	03/16/21	
Surrogate: Bromofluorobenzene		90.5 %	70-130	03/15/21	03/16/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112002
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/15/21	03/16/21	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	03/15/21	03/16/21	
Surrogate: Toluene-d8		101 %	70-130	03/15/21	03/16/21	
Surrogate: Bromofluorobenzene		90.5 %	70-130	03/15/21	03/16/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HT		Batch: 2112024
Diesel Range Organics (C10-C28)	ND	25.0	1	03/17/21	03/18/21	
Oil Range Organics (C28-C35)	50.3	50.0	1	03/17/21	03/18/21	
Surrogate: n-Nonane		110 %	50-200	03/17/21	03/18/21	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112015
Chloride	406	20.0	1	03/17/21	03/17/21	



Sample Data

Logos Resources
2010 Afton Place
Farmington NM, 87401

Project Name: Rosa Unit 354A
Project Number: 12035-0114
Project Manager: Robert Jordan

Reported:
3/18/2021 4:46:24PM

SC-2 at 3'

E103052-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112002
Benzene	ND	0.0250	1	03/15/21	03/16/21	
Toluene	ND	0.0250	1	03/15/21	03/16/21	
Ethylbenzene	ND	0.0250	1	03/15/21	03/16/21	
p,m-Xylene	ND	0.0500	1	03/15/21	03/16/21	
o-Xylene	ND	0.0250	1	03/15/21	03/16/21	
Total Xylenes	ND	0.0250	1	03/15/21	03/16/21	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	03/15/21	03/16/21	
Surrogate: Toluene-d8		103 %	70-130	03/15/21	03/16/21	
Surrogate: Bromofluorobenzene		93.0 %	70-130	03/15/21	03/16/21	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112002
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/15/21	03/16/21	
Surrogate: 1,2-Dichloroethane-d4		105 %	70-130	03/15/21	03/16/21	
Surrogate: Toluene-d8		103 %	70-130	03/15/21	03/16/21	
Surrogate: Bromofluorobenzene		93.0 %	70-130	03/15/21	03/16/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HT		Batch: 2112024
Diesel Range Organics (C10-C28)	ND	25.0	1	03/17/21	03/18/21	
Oil Range Organics (C28-C35)	ND	50.0	1	03/17/21	03/18/21	
Surrogate: n-Nonane		108 %	50-200	03/17/21	03/18/21	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: IY		Batch: 2112015
Chloride	98.1	20.0	1	03/17/21	03/17/21	



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	3/18/2021 4:46:24PM

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
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2112002-BLK1)

Prepared: 03/15/21 Analyzed: 03/15/21

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	0.512		0.500		102	70-130			
Surrogate: Toluene-d8	0.502		0.500		100	70-130			
Surrogate: Bromofluorobenzene	0.441		0.500		88.2	70-130			

LCS (2112002-BS1)

Prepared: 03/15/21 Analyzed: 03/15/21

Benzene	2.29	0.0250	2.50		91.5	70-130			
Toluene	2.51	0.0250	2.50		100	70-130			
Ethylbenzene	2.49	0.0250	2.50		99.6	70-130			
p,m-Xylene	4.93	0.0500	5.00		98.6	70-130			
o-Xylene	2.47	0.0250	2.50		98.7	70-130			
Total Xylenes	7.40	0.0250	7.50		98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.522		0.500		104	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			
Surrogate: Bromofluorobenzene	0.460		0.500		91.9	70-130			

Matrix Spike (2112002-MS1)

Source: E103053-03 Prepared: 03/15/21 Analyzed: 03/15/21

Benzene	2.06	0.0250	2.50	ND	82.6	48-131			
Toluene	2.18	0.0250	2.50	ND	87.4	48-130			
Ethylbenzene	2.17	0.0250	2.50	ND	86.9	45-135			
p,m-Xylene	4.36	0.0500	5.00	ND	87.1	43-135			
o-Xylene	2.16	0.0250	2.50	ND	86.4	43-135			
Total Xylenes	6.52	0.0250	7.50	ND	86.9	43-135			
Surrogate: 1,2-Dichloroethane-d4	0.537		0.500		107	70-130			
Surrogate: Toluene-d8	0.499		0.500		99.8	70-130			
Surrogate: Bromofluorobenzene	0.449		0.500		89.7	70-130			

Matrix Spike Dup (2112002-MSD1)

Source: E103053-03 Prepared: 03/15/21 Analyzed: 03/15/21

Benzene	2.00	0.0250	2.50	ND	79.9	48-131	3.25	23	
Toluene	2.28	0.0250	2.50	ND	91.0	48-130	4.08	24	
Ethylbenzene	2.28	0.0250	2.50	ND	91.0	45-135	4.63	27	
p,m-Xylene	4.50	0.0500	5.00	ND	90.0	43-135	3.28	27	
o-Xylene	2.24	0.0250	2.50	ND	89.8	43-135	3.79	27	
Total Xylenes	6.75	0.0250	7.50	ND	90.0	43-135	3.45	27	
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			
Surrogate: Bromofluorobenzene	0.489		0.500		97.7	70-130			



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	3/18/2021 4:46:24PM

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 (2112002-BLK1)

Prepared: 03/15/21 Analyzed: 03/15/21

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1,2-Dichloroethane-d4	0.512		0.500		102	70-130			
Surrogate: Toluene-d8	0.502		0.500		100	70-130			
Surrogate: Bromofluorobenzene	0.441		0.500		88.2	70-130			

LCS (2112002-BS2)

Prepared: 03/15/21 Analyzed: 03/15/21

Gasoline Range Organics (C6-C10)	55.5	20.0	50.0		111	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.520		0.500		104	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			
Surrogate: Bromofluorobenzene	0.471		0.500		94.1	70-130			

Matrix Spike (2112002-MS2)

Source: E103053-03 Prepared: 03/15/21 Analyzed: 03/15/21

Gasoline Range Organics (C6-C10)	52.8	20.0	50.0	ND	106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.532		0.500		106	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			
Surrogate: Bromofluorobenzene	0.455		0.500		91.0	70-130			

Matrix Spike Dup (2112002-MSD2)

Source: E103053-03 Prepared: 03/15/21 Analyzed: 03/15/21

Gasoline Range Organics (C6-C10)	49.8	20.0	50.0	ND	99.6	70-130	5.79	20	
Surrogate: 1,2-Dichloroethane-d4	0.547		0.500		109	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			
Surrogate: Bromofluorobenzene	0.464		0.500		92.7	70-130			



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	3/18/2021 4:46:24PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: HT

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 (2112024-BLK1)

Prepared: 03/17/21 Analyzed: 03/17/21

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C35)	ND	50.0							
Surrogate: n-Nonane	54.0		50.0		108	50-200			

LCS (2112024-BS1)

Prepared: 03/17/21 Analyzed: 03/17/21

Diesel Range Organics (C10-C28)	470	25.0	500		94.1	38-132			
Surrogate: n-Nonane	50.9		50.0		102	50-200			

Matrix Spike (2112024-MS1)

Source: E103053-06 Prepared: 03/17/21 Analyzed: 03/17/21

Diesel Range Organics (C10-C28)	524	25.0	500	ND	105	38-132			
Surrogate: n-Nonane	55.5		50.0		111	50-200			

Matrix Spike Dup (2112024-MSD1)

Source: E103053-06 Prepared: 03/17/21 Analyzed: 03/17/21

Diesel Range Organics (C10-C28)	492	25.0	500	ND	98.5	38-132	6.13	20	
Surrogate: n-Nonane	51.9		50.0		104	50-200			



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	3/18/2021 4:46:24PM

Anions by EPA 300.0/9056A

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 (2112015-BLK1)

Prepared: 03/17/21 Analyzed: 03/17/21

Chloride	ND	20.0
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LCS (2112015-BS1)

Prepared: 03/17/21 Analyzed: 03/17/21

Chloride	249	20.0	250	99.7	90-110
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Matrix Spike (2112015-MS1)

Source: E103052-01 Prepared: 03/17/21 Analyzed: 03/17/21

Chloride	1150	20.0	250	878	107	80-120
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Matrix Spike Dup (2112015-MSD1)

Source: E103052-01 Prepared: 03/17/21 Analyzed: 03/17/21

Chloride	1220	20.0	250	878	139	80-120	6.64	20	M1
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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 Resources	Project Name:	Rosa Unit 354A	
2010 Afton Place	Project Number:	12035-0114	Reported:
Farmington NM, 87401	Project Manager:	Robert Jordan	03/18/21 16:46

M1 Matrix spike recovery was above acceptance limits. The associated 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

[illegible]

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: Chase Polledo

Samples requiring thermal preservation must be received on 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 <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
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.



5795 US Highway 64, Farmington, NM 87401
24 Hour Emergency Response Phone (800) 362-1879

Ph (505) 632-1881 Fx (505) 632-1855

envirotech-inc.com
labadmin@envirotech-inc.com

Envirotech Analytical Laboratory

Printed: 3/12/2021 1:51:23PM

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 Resources	Date Received:	03/11/21 16:38	Work Order ID:	E103052
Phone:	(505) 320-1395	Date Logged In:	03/12/21 13:47	Logged In By:	Alexa Michaels
Email:	rjordan@logosresourcesllc.com	Due Date:	03/18/21 17:00 (5 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: Chase Polledo**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? No

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

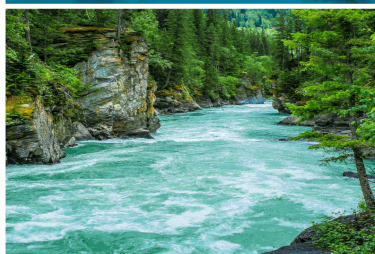
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Robert Jordan



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Logos Resources

Project Name: Rosa Unit 354A

Work Order: E104098

Job Number: 12035-0114

Received: 4/21/2021

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
4/28/21

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 NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 4/28/21

Robert Jordan
2010 Afton Place
Farmington, NM 87401



Project Name: Rosa Unit 354A
Workorder: E104098
Date Received: 4/21/2021 4:58:00PM

Robert Jordan,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 4/21/2021 4:58:00PM, under the Project Name: Rosa Unit 354A.

The analytical test results summarized in this report with the Project Name: Rosa Unit 354A 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
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Cell: 775-287-1762
whinchman@envirotech-inc.com

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Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SB-1-grab sample	5
QC Summary Data	6
QC - Volatile Organics by EPA 8021B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	04/28/21 11:48

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB-1-grab sample	E104098-01A	Soil	04/21/21	04/21/21	Glass Jar, 4 oz.



Sample Data

Logos Resources 2010 Afton Place Farmington NM, 87401	Project Name: Rosa Unit 354A Project Number: 12035-0114 Project Manager: Robert Jordan	Reported: 4/28/2021 11:48:45AM
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SB-1-grab sample

E104098-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2117026	
Benzene	ND	0.0250	1	04/22/21	04/26/21	
Ethylbenzene	ND	0.0250	1	04/22/21	04/26/21	
Toluene	ND	0.0250	1	04/22/21	04/26/21	
o-Xylene	ND	0.0250	1	04/22/21	04/26/21	
p,m-Xylene	ND	0.0500	1	04/22/21	04/26/21	
Total Xylenes	ND	0.0250	1	04/22/21	04/26/21	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	95.4 %	70-130		04/22/21	04/26/21	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2117026	
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/22/21	04/26/21	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	103 %	70-130		04/22/21	04/26/21	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HT		Batch: 2117034	
Diesel Range Organics (C10-C28)	ND	25.0	1	04/23/21	04/24/21	
Oil Range Organics (C28-C35)	ND	50.0	1	04/23/21	04/24/21	
<i>Surrogate: n-Nonane</i>	99.4 %	50-200		04/23/21	04/24/21	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS		Batch: 2117032	
Chloride	64.2	20.0	1	04/23/21	04/23/21	



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	4/28/2021 11:48:45AM

Volatile Organics by EPA 8021B

Analyst: RKS

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 (2117026-BLK1)

Prepared: 04/22/21 Analyzed: 04/26/21

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.39		8.00		92.3	70-130			

LCS (2117026-BS1)

Prepared: 04/22/21 Analyzed: 04/26/21

Benzene	4.87	0.0250	5.00		97.4	70-130			
Ethylbenzene	4.80	0.0250	5.00		95.9	70-130			
Toluene	5.00	0.0250	5.00		100	70-130			
o-Xylene	4.96	0.0250	5.00		99.3	70-130			
p,m-Xylene	9.78	0.0500	10.0		97.8	70-130			
Total Xylenes	14.7	0.0250	15.0		98.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.66		8.00		95.7	70-130			

Matrix Spike (2117026-MS1)

Source: E104094-01 Prepared: 04/22/21 Analyzed: 04/26/21

Benzene	5.04	0.0250	5.00	ND	101	54-133			
Ethylbenzene	4.91	0.0250	5.00	ND	98.2	61-133			
Toluene	5.14	0.0250	5.00	ND	103	61-130			
o-Xylene	5.07	0.0250	5.00	ND	101	63-131			
p,m-Xylene	10.0	0.0500	10.0	ND	100	63-131			
Total Xylenes	15.1	0.0250	15.0	ND	100	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.36		8.00		91.9	70-130			

Matrix Spike Dup (2117026-MSD1)

Source: E104094-01 Prepared: 04/22/21 Analyzed: 04/26/21

Benzene	4.96	0.0250	5.00	ND	99.2	54-133	1.50	20	
Ethylbenzene	4.83	0.0250	5.00	ND	96.6	61-133	1.69	20	
Toluene	5.05	0.0250	5.00	ND	101	61-130	1.81	20	
o-Xylene	4.99	0.0250	5.00	ND	99.9	63-131	1.46	20	
p,m-Xylene	9.84	0.0500	10.0	ND	98.4	63-131	1.70	20	
Total Xylenes	14.8	0.0250	15.0	ND	98.9	63-131	1.62	20	
Surrogate: 4-Bromochlorobenzene-PID	7.39		8.00		92.4	70-130			



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	4/28/2021 11:48:45AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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 (2117026-BLK1)

Prepared: 04/22/21 Analyzed: 04/26/21

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.48		8.00		106	70-130			

LCS (2117026-BS2)

Prepared: 04/22/21 Analyzed: 04/26/21

Gasoline Range Organics (C6-C10)	50.5	20.0	50.0		101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.38		8.00		105	70-130			

Matrix Spike (2117026-MS2)

Source: E104094-01 Prepared: 04/22/21 Analyzed: 04/26/21

Gasoline Range Organics (C6-C10)	52.9	20.0	50.0	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.51		8.00		106	70-130			

Matrix Spike Dup (2117026-MSD2)

Source: E104094-01 Prepared: 04/22/21 Analyzed: 04/26/21

Gasoline Range Organics (C6-C10)	52.4	20.0	50.0	ND	105	70-130	0.874	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.61		8.00		108	70-130			



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	4/28/2021 11:48:45AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: HT

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 (2117034-BLK1)

Prepared: 04/23/21 Analyzed: 04/23/21

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C35)	ND	50.0							
Surrogate: n-Nonane	50.6		50.0		101	50-200			

LCS (2117034-BS1)

Prepared: 04/23/21 Analyzed: 04/23/21

Diesel Range Organics (C10-C28)	515	25.0	500		103	38-132			
Surrogate: n-Nonane	47.8		50.0		95.6	50-200			

Matrix Spike (2117034-MS1)

Source: E104094-04 Prepared: 04/23/21 Analyzed: 04/23/21

Diesel Range Organics (C10-C28)	530	25.0	500	ND	106	38-132			
Surrogate: n-Nonane	48.8		50.0		97.6	50-200			

Matrix Spike Dup (2117034-MSD1)

Source: E104094-04 Prepared: 04/23/21 Analyzed: 04/23/21

Diesel Range Organics (C10-C28)	528	25.0	500	ND	106	38-132	0.248	20	
Surrogate: n-Nonane	49.3		50.0		98.6	50-200			



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 354A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Robert Jordan	4/28/2021 11:48:45AM

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 (2117032-BLK1)

Prepared: 04/23/21 Analyzed: 04/23/21

Chloride	ND	20.0
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LCS (2117032-BS1)

Prepared: 04/23/21 Analyzed: 04/23/21

Chloride	243	20.0	250	97.1	90-110
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Matrix Spike (2117032-MS1)

Source: E104094-01 Prepared: 04/23/21 Analyzed: 04/23/21

Chloride	289	20.0	250	44.2	98.1	80-120
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Matrix Spike Dup (2117032-MSD1)

Source: E104094-01 Prepared: 04/23/21 Analyzed: 04/23/21

Chloride	301	20.0	250	44.2	103	80-120	3.80	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 Resources	Project Name:	Rosa Unit 354A	
2010 Afton Place	Project Number:	12035-0114	Reported:
Farmington NM, 87401	Project Manager:	Robert Jordan	04/28/21 11:48

- 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.



Client: LOGOS Resources II, LLC						Bill To								Lab Use Only							TAT			EPA Program				
Project: Rosa Unit 354A						Attention: Robert Jordan						Lab WO# PEI04098				Job Number 12035-0114				1D	3D	RCRA		CWA	SDWA			
Project Manager: Robert Jordan						Address: 2010 Afton Place																						
Address: 2010 Afton Place						City, State, Zip Farmington NM 87401						Am 4/21/21 Analysis and Method																
City, State, Zip Farmington, NM 87401						Phone: 505-324-4145						State																
Phone: 505-320-1395						Email: etrujillo@logosresourcesllc.com						DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0								NM	CO	UT	AZ
Email: rjordan@logosresourcesllc.com						tsessions@logosresourcesllc.com																			TX	OK		
Report due by:						mflorez@logosresourcesllc.com																						
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number																						Remarks	
10:00am	4/21/2021	S	1-4oz jar	SB - 1 - grab sample	1	X	X	X					X															
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: Robert Jordan																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) [Signature]			Date 4/21/21		Time 4:55pm		Received by: (Signature) [Signature]			Date 4/21/21		Time 11:05AM		Lab Use Only Received on ice: Y N														
Relinquished by: (Signature)			Date		Time		Received by: (Signature)			Date		Time		T1 T2 T3														
Relinquished by: (Signature)			Date		Time		Received by: (Signature)			Date		Time		AVG Temp °C 4														
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: 4/22/2021 2:50:09PM

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 Resources	Date Received:	04/21/21 16:58	Work Order ID:	E104098
Phone:	(505) 320-1395	Date Logged In:	04/22/21 14:44	Logged In By:	Alexa Michaels
Email:	rjordan@logosresourcesllc.com	Due Date:	04/28/21 17:00 (5 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: Marie Florez**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? No

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? No

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

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

Date



envirotech Inc.

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

COMMENTS

Action 32542

COMMENTS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 32542
	Action Type: [C-141] Release Corrective Action (C-141)

COMMENTS

Created By	Comment	Comment Date
nvelez	As a reminder, any future releases MUST follow the timelines specified within 19.15.29 NMAC regardless of changes in personnel or any circumstance that an operator deems justifiable in delaying the require notifications to OCD.	1/21/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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Phone:(505) 334-6178 Fax:(505) 334-6170
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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 32542

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 32542
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	1/21/2022