



**WEST MOUNT SPILL M
CLOSURE REQUEST**

**API NO. 30-005-64381
Unit Letter P, Section 25, Township 15S, Range 28E
CHAVES COUNTY, NEW MEXICO**

**DATE OF RELEASE: 09/20/2023
INCIDENT NO. NAPP2329938319**

08/19/2026

Prepared by:



**2724 NW COUNTY ROAD
HOBBS, NM 88240**

August 19, 2026

New Mexico Energy, Mineral & Natural Resources
NMOCD District I
C/O Mike Bratcher and Robert Hamlet
811 S. First Street
Artesia, NM 88210

Mack Energy Corporation
11344 Lovington Hwy
Artesia, NM 88210

Subject: Closure Request for Mack Energy Corporation – West Mount Spill M

API No. 30-005-64381
Incident No. NAPP2329938319
Unit Letter P, Section 25, Township 15S, Range 28E
Chaves County, New Mexico

To Whom It May Concern,

Mack Energy retained Energy Staffing Services, LLC (ESS) to conduct a spill assessment for the West Mount Spill M (hereafter referred to as "Spill M") for the produced water release that occurred on September 20th, 2023. On September 22nd, 2023, at 4:12 p.m., ESS provided the immediate notification of the release to the *New Mexico Oil Conservation Division (NMOCD), District I Office* via email. (Notification attached). On behalf of Mack Energy, ESS also submitted the initial C-141 release notification, along with the spill calculator used to determine the volume of the release (attached) on October 26th, 2023. The NMOCD accepted the C-141 as recorded on October 26th, 2023, at 10:48 a.m. The incident number assigned to the release is NAPP2329938319. (Notification of correspondence is attached).

This report provides a detailed description of the spill assessment, delineation, and remedial activities, which demonstrate that the closure criteria has been established in the 19.15.29.12 *New Mexico Administrative Code (NMAC: New Mexico Oil Conservation Division, 2018)* have been met and all applicable regulations have been followed. This document is intended to serve as the final report to obtain approval from the NMOCD for the closure of the above-mentioned release.

Incident Description

On September 20th, 2023, the water transfer company Well Spring found a failure on their lay flat line, which had released produced water into the pasture area of Spill M.

Upon discovery of the release, ESS was notified and dispatched to the location to conduct a full environmental site assessment of the release. It was determined, after measuring the impact area, that approximately, that approximately 4.33 barrels of produced water, with no fluid available to be recovered, had been released into the pasture area of the Spill M release. Initial site photos and measuring of the impact area were conducted. Please see the initial site photos attached.

Site Characterization

The release at Spill M occurred on State Land and is located at 32.980377 latitude and - 104.077642 longitude, 21.2 miles southeast of Hagerman, New Mexico. The legal description of the site is Unit Letter P, Section 25, Township 15S, Range 28E. The site is located in Chaves County, New Mexico. Please see the site schematic attached.

The Spill M release consists of production lines and is near production facilities and well pads. The area of the release occurred in the pasture area of Spill M. The elevation is 3,678 feet. The area is historically or has been primarily dominated by black grama, bush muhly, dropseed, creosotebush, and other perennial forbs and grasses. Please find the attached Rangeland and Vegetation Classification information.

The *United States Department of Agriculture Natural Resources Conservation Services* indicates that the soil type in the area of Spill M release consists of 100% Tencee-Sotim association. (Soil map attached). In the area of Spill M, the *FEMA National Flood Hazard Layer* indicates that there is 0.2% chance of a flood hazard with a 1% chance of flood with an average depth of one foot or with drainage areas of less than one square mile. (See map attached).

There is "low potential" for Karst Geology to be present near the Spill M release site, according to the *United States Department of the Interior, Bureau of Land Management*. Please find the Karst Map attached herein.

There is no surface water located near or around Spill M release. The site is not near a continuously flowing watercourse and or lakebed within a ½ mile from the release. No other critical or community features were found at Spill M release. (Please see the attached Watercourse Map).

The nearest and most recent water well to site according to the *New Mexico Office of the State Engineer* is RA 12428, drilled in 2016 with a well depth of 170 feet and a groundwater depth of 125 feet. This well is located 6,277 yards from the site. The second well is RA 12429 POD1, drilled in 2016 with a well depth of 62 feet and a groundwater depth of 27 feet. The well is located 7,173 yards from the site. The third well is RA 09248, drilled in 1996 with a well depth of 150 feet and a groundwater depth of 45 feet. This well is located 8,213 yards from the site. The fourth well is RA 10280, drilled in 2002 with a well depth of 70 feet and a groundwater depth of 40 feet. This well is located 8,318 yards from the site. The fifth well is RA 09059, drilled in 1995 with a well depth of 110 feet and a groundwater depth of 35 feet. This well is located 8,764 yards from the site. The sixth well is L 14514 POD1, drilled in 2018 with a well depth of 208 feet

and a groundwater depth of 77 feet. This well is located 9,311 yards from the site. The seventh well is RA 09342, drilled in 1998 well a well depth of 220 feet and a groundwater depth of 110 feet. This well is located 9,496 yards from the site. An extended groundwater search was conducted using the *OSE POD Location Mapping System* and it has been determined that no other wells were found within a ½ mile radius of the Spill M release. Please find the NMOSE, OSE POD, and the groundwater map attached to this report.

Closure Criteria Determination

The Closure Criteria for Soils impacted by a Release is shown in the chart below. With no groundwater data available within a ½ mile radius from the release point, being on State Land and with having “low karst potential”, the site fell under <50’ to groundwater. This is only due to not having any recent or available water depths.

DGW	Constituent	Method	Limit
≤ 50’	Chloride	EPA 300.0 OR SM4500 CLB	600 mg/kg
	TPH (GRO + DRO+ MRO)	EPA SW-846 METHOD 8015M	100 mg/kg
	GRO + DRO	EPA SW-846 METHOD 8015M	50 mg/kg
	BTEX	EPA SW-846 METHOD 8021B OR 8260B	10 mg/kg
	Benzene	EPA SW-846 METHOD 8021B OR 8260B	10 mg/kg

Soil Remediation Action Levels

ESS has provided sufficient data that this release has impacted the soil on the Spill M release site and that the protocol is consistent with the remediation/abatement goals and objectives set forth in the *NMOCD Closure Criteria for Soils Impacted by a Release, dated August 14, 2018*. This document provides direction for Mack Energy’s initial response actions, site assessment and sample procedures conducted by ESS Staff. We would like to present to you the following information concerning the delineation process for the release detailed herein.

Soil Sampling Procedures

Soil sampling for laboratory analysis was conducted according to the NMOCD – approved industry standards. Accepted NMOCD soil sampling procedures and laboratory analytical methods are as follows:

- Collect clean samples in airtight glass jars supplied by the laboratory to conduct the analysis.
- Each sample jar was labelled with site and sample information.
- Samples were kept in and stored in a cool place and packed on ice.
- Promptly ship samples to the lab for analysis following the chain of custody procedures.

The following lab analysis method was used for each bottom hole (vertical) and sidewall sample (horizontal) was submitted to Envirotech Analytical Laboratory:

Volatile Organics by EPA 8021B

- Benzene, Toluene, Ethylbenzene, p.m. Xylene, o-Xylene and Total Xylenes

Nonhalogenated Organics by EPA 8015D – GRO

- Gasoline Range Organics (C6-C10)

Nonhalogenated Organics by EPA 8015D – DRO/ORO

- Diesel Range Organics (C10-C28)
- Oil Range Organics (C28-C40)

Anions by EPA 300.0/9056A

- Chloride

Release Investigation Data

On December 4th, 2023, ESS arrived on site of the Spill M release, set delineation sample points, GPS'd each sample point and began to obtain surface samples. Each surface sample was field tested, logged, and submitted to Envirotech Laboratory for confirmation. A total of 9 vertical sample points were placed along with 9 horizontal sample points. Each sample point was then sampled by use of backhoe in 1' and 2' intervals. Bottom hole samples were then submitted to lab for confirmation. Please see the delineation sample data below, with the lab indicated in yellow. Attached to this report you will find the sample data, delineation sample map, and the lab analysis.

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	DATE
SP1	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	2	880								
	4	720								
	6	240								
	8	160	L	ND	ND	ND	ND	ND	29.4	7/18/2024
SP2	SURF	160	L	ND	ND	ND	ND	ND	94.6	12/4/2023
	2	720								
	4	640								
	6	240								
	8	240	L	ND	ND	ND	ND	ND	ND	7/18/2024
SP3	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	2	1120								
	4	800								
	6	720								

	8	320								
	10	320	L	ND	ND	ND	ND	ND	54.9	7/18/2024
SP4	SURF	160	L	ND	ND	ND	ND	ND	33.5	12/4/2023
	2	2160								
	4	1680								
	6	1120								
	8	800								
	10	640								
	12	320								
	14	320	L	ND	ND	ND	ND	ND	49.9	7/18/2024
SP5	SURF	160	L	ND	ND	ND	ND	ND	99.5	12/4/2023
	2	2720								
	4	2880								
	6	2320								
	8	1680								
	10	1200								
	12	960								
	14	720								
	16	400								
	18	320	L	ND	ND	ND	ND	ND	50.7	7/18/2024
SP6	SURF	160	L	ND	ND	ND	ND	ND	34.8	12/4/2023
	2	2320								
	4	2560								
	6	2160								
	8	1520								
	10	1120								
	12	880								
	14	720								
	16	320								
	18	240	L	ND	ND	ND	ND	ND	25.2	7/18/2024
SP7	SURF	160	L	ND	ND	ND	ND	ND	95.3	12/4/2023
	2	960								
	4	960								
	6	400								
	8	240	L	ND	ND	ND	ND	ND	25.2	7/18/2024
SP8	SURF	160	L	ND	ND	ND	ND	ND	79.5	12/4/2023

	2	720								
	4	640								
	6	320								
	8	240	L	ND	ND	ND	ND	ND	25.4	7/18/2024
SP9	SURF	>4000	L	ND	ND	ND	ND	ND	7900	12/4/2023
	2	720								
	4	640								
	6	240								
	8	240	L	ND	ND	ND	ND	ND	25	7/18/2024
SW1	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	800								
	2	400								
	3	320	L	ND	ND	ND	ND	ND	21.4	7/17/2024
SW2	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	400								
	2	240	L	ND	ND	ND	ND	ND	21.4	7/17/2024
SW3	SURF	160	L	ND	ND	ND	ND	ND	112	12/4/2023
	1	640								
	2	240								
	3	240	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW4	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	640								
	2	320								
	3	240	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW5	SURF	240	L	ND	ND	ND	ND	ND	21.7	12/4/2023
	1	720								
	2	240								
	3	160	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW6	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	320								
	2	160	L	ND	ND	ND	ND	ND	21.1	7/17/2024
SW7	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	640								

	2	240								
	3	160	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW8	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	800								
	2	320								
	3	160	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW9	SURF	2800	L	ND	ND	ND	ND	ND	2570	12/4/2023
	1	640								
	2	320								
	3	160	L	ND	ND	ND	ND	ND	ND	7/17/2024

Please see the delineation photos attached to this report.

On November 22nd, 2024, ESS sent the official notification to the NMOCD for the composite phase of the release on Spill M. On November 22nd, 2024, at 12:59 p.m., the NMOCD received and accepted the notification for the composite phase of the review. The application ID number assigned was 405964. (Please see email correspondence attached).

On October 28th, 2024, crews began obtaining 200 square foot composites from the excavation area of Spill M release. A total of 21 bottom hole composites were obtained, field tested and submitted to Envirotech Laboratory for confirmation. Please find the composite sample data below, as well as attached to this report followed by the composite sample map and lab analysis.

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	Notes
COMP1	6	320	L	ND	ND	ND	ND	ND	149	12/16/2024
COMP2	6	160	L	ND	ND	ND	ND	ND	21.3	12/16/2024
COMP3	6	320	L	ND	ND	ND	ND	ND	145	12/16/2024
COMP4	8	160	L	ND	ND	ND	ND	ND	22.6	12/16/2024
COMP5	8	160	L	ND	ND	ND	ND	ND	23.1	12/16/2024
COMP6	8	160	L	ND	ND	ND	ND	ND	62.8	12/16/2024
COMP7	8	160	L	ND	ND	ND	ND	ND	57.6	12/16/2024

COMP8	12	240	L	ND	ND	ND	ND	ND	75.4	12/16/2024
COMP9	12	240	L	ND	ND	ND	ND	ND	82.2	12/16/2024
COMP10	16	240	L	ND	ND	ND	ND	ND	83.8	12/16/2024
COMP11	14	240	L	ND	ND	ND	ND	ND	82.6	12/16/2024
SWCOMP1	6	160	L	ND	ND	ND	ND	ND	180	12/17/2024
SWCOMP2	8	160	L	ND	ND	ND	ND	ND	ND	12/17/2024
SWCOMP3	16	160	L	ND	ND	ND	ND	ND	ND	12/17/2024
SWCOMP4	14	160	L	ND	ND	ND	ND	ND	ND	12/17/2024
SWCOMP5	14	160	L	ND	ND	ND	ND	ND	ND	12/17/2024
SWCOMP6	14	160	L	ND	ND	ND	ND	ND	47.9	12/17/2024
SWCOMP7	16	160	L	ND	ND	ND	ND	ND	39.1	12/17/2024
SWCOMP8	16	160	L	ND	ND	ND	ND	ND	56	12/17/2024
SWCOMP9	8	160	L	ND	ND	ND	ND	ND	77	12/17/2024
SWCOMP10	6	160	L	ND	ND	ND	ND	ND	ND	12/17/2024

Please find the remediation photos attached herein.

The impacted area of the Spill M release measured at 2,197 square feet. During the remediation phase, a total of 1,864 cubic yards of contaminated soil was excavated and hauled to Gandy's disposal. A total of 1,644 cubic yards of fill dirt was hauled from Gandy's disposal to location and stockpiled for backfill along with 108 cubic yards of topsoil from Mack's Bogel's Pit. The site was contoured and sloped back to its natural grade and seeded. Backfilling and seeding of the site was completed on January 16th, 2025. Please find the final photos attached to this report.

Closure Request

On behalf of Mack Energy, Energy Staffing Services, LLC requests that incident (NAPP2329938319) be closed for the produced water release that occurred in the pasture area of the West Mount Spill M. Mack Energy and ESS certify that all information provided and that is detailed in this report to be true and correct. Mack Energy and ESS have complied with all applicable closure requirements for the releasee that occurred on the West Mount Spill M.

After reviewing this report, if you have any questions or concerns regarding this closure request, please do not hesitate to contact the undersigned at (575)390-6397 or (575)393-9048. You may also email any issues to natalie@energystaffingllc.com.

Sincerely,



Director of Environmental and Regulatory Services

Energy Staffing Services, LLC.

2724 NW County Road

Hobbs, NM 88240

Cell: 575-390-6397

Office: 575-393-9048

Email: natalie@energystaffingllc.com



Attachments

Spill Notification
Initial C141 and Spill Calculator Form
Impact Map
Initial Site Photos
Site Map
Rangeland and Vegetation Classification
Soil Map
FEMA National Flood Hazard Layer Map
Karst Geology Map
Watercourse Water Map
Groundwater Information
Groundwater Map
OSE POD Map
Delineation Sample Data
Delineation Sample Map and GPS Log
Lab Analysis for Delineation
Delineation Site Photos
Composite Notification
Composite Sample Data
Composite Sample Map and GPS Log
Lab analysis for Remediation
Remediation and Final Photos
Final C141
Reclamation Report

Natalie Gladden

From: OCDOnline@state.nm.us
Sent: Thursday, October 26, 2023 2:28 PM
To: Natalie Gladden
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 279643

To whom it may concern (c/o Natalie Gladden for MACK ENERGY CORP),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action (C-141)*, for incident ID (n#) nAPP2329938319, with the following conditions:

- **None**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Shelly Wells
Environmental Specialist-A
505-469-7520
Shelly.Wells@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party MACK ENERGY CORPORATION	OGRID 013837
Contact Name MATT BUCKLES	Contact Telephone 575-703-1958
Contact email mattbuckles@mec.com	Incident # <i>(assigned by OCD)</i>
Contact mailing address 11344 Lovington Highway, Artesia NM 88210	

Location of Release Source

Latitude **32.980377** Longitude **-104.077642**
(NAD 83 in decimal degrees to 5 decimal places)

Site Name WEST MOUNT SPILL m	Site Type PRODUCTION AREA
Date Release Discovered 9/22/2023	API# <i>(if applicable)</i> 30-005-64381

Unit Letter	Section	Township	Range	County
p	25	15S	28E	CHAVES

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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 4.33	Volume Recovered (bbls) 0BBLs
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The water transfer company Well Spring found a failure on their lay flat line, releasing the fluid to the pasture area.

Form C-141

State of New Mexico

Page 2

Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? DUE TO VOLUME OF RELEASE
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Email was sent to the OCD, Bratcher, Hamlet, Venegas, on 9/22 at 4:12pm	

Initial Response

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

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>NATALIE GLADDEN</u> Title: <u>DIRECTOR OF ENVIRONMENTAL AND REGULATORY</u> Signature: <u></u> Date: <u>10/26/23</u> email: <u>natalie@energystaffingll.com</u> Telephone: <u>575-390-6397</u>
<u>OCD Only</u> Received by: _____ Date: _____

WEST MOUNT SPILL M

Soil Type	Porosity	Length	Width	Depth (.083 per inch)	Cubic Feet	Estimated Barrels	Soil Type
Clay	0.15	10	10	0.083	8.3	0.22	Clay
Peat	0.40	10	10	0.083	8.3	0.59	Peat
Glacial Sediments	0.13	10	10	0.083	8.3	0.19	Glacial Sediments
Sandy Clay	0.12	10	10	0.083	8.3	0.18	Sandy Clay
Silt	0.16	10	10	0.083	8.3	0.24	Silt
Loess	0.25	10	10	0.083	8.3	0.37	Loess
Fine Sand	0.16	10	10	0.083	8.3	0.24	Fine Sand
Medium Sand	0.25	95.48	12.27	0.083	97.237787	4.33	Medium Sand
Coarse Sand	0.26	10	10	0.083	8.3	0.38	Coarse Sand
Gravelly Sand	0.26	10	10	0.083	8.3	0.38	Gravelly Sand
Fine Gravel	0.26	10	10	0.083	8.3	0.38	Fine Gravel
Medium Gravel	0.20	10	10	0.083	8.3	0.30	Medium Gravel
Coarse Gravel	0.18	10	10	0.083	8.3	0.27	Coarse Gravel
Sandstone	0.25	10	10	0.083	8.3	0.37	Sandstone
Siltstone	0.18	10	10	0.083	8.3	0.27	Siltstone
Shale	0.05	10	10	0.083	8.3	0.07	Shale
Limestone	0.13	10	10	0.083	8.3	0.19	Limestone
Basalt	0.19	10	10	0.083	8.3	0.28	Basalt
Volcanic Tuff	0.20	10	10	0.083	8.3	0.30	Volcanic Tuff
Standing Liquids	X	10	10	0.083	8.3	1.48	Standing Liquids

1	2	3	4	5	6
0.083	0.166	0.250	0.332	0.415	0.500
7	8	9	10	11	12
0.581	0.664	0.750	0.830	0.913	1.000

NOTE: This is an **estimate** tool designed for quick field estimates of whether a C-141 should be required (i.e. a release is estimated to be greater than or less than 5 barrel volumes)

Choose the one prevailing ground type for estimating spill volumes at a single location.

Note that the depth should be measured in feet and tenths of feet (1 inch = .083)

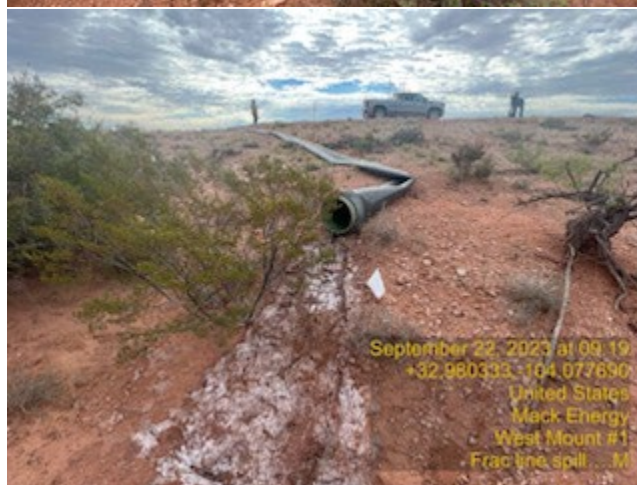
Cubic Feet = L x W x D

Estimated Barrels = ((Cubic Feet x Porosity) / 5.61)

MACK ENERGY CORPORATION
INITIAL SITE PHOTOS
WEST MOUNT SPILL M







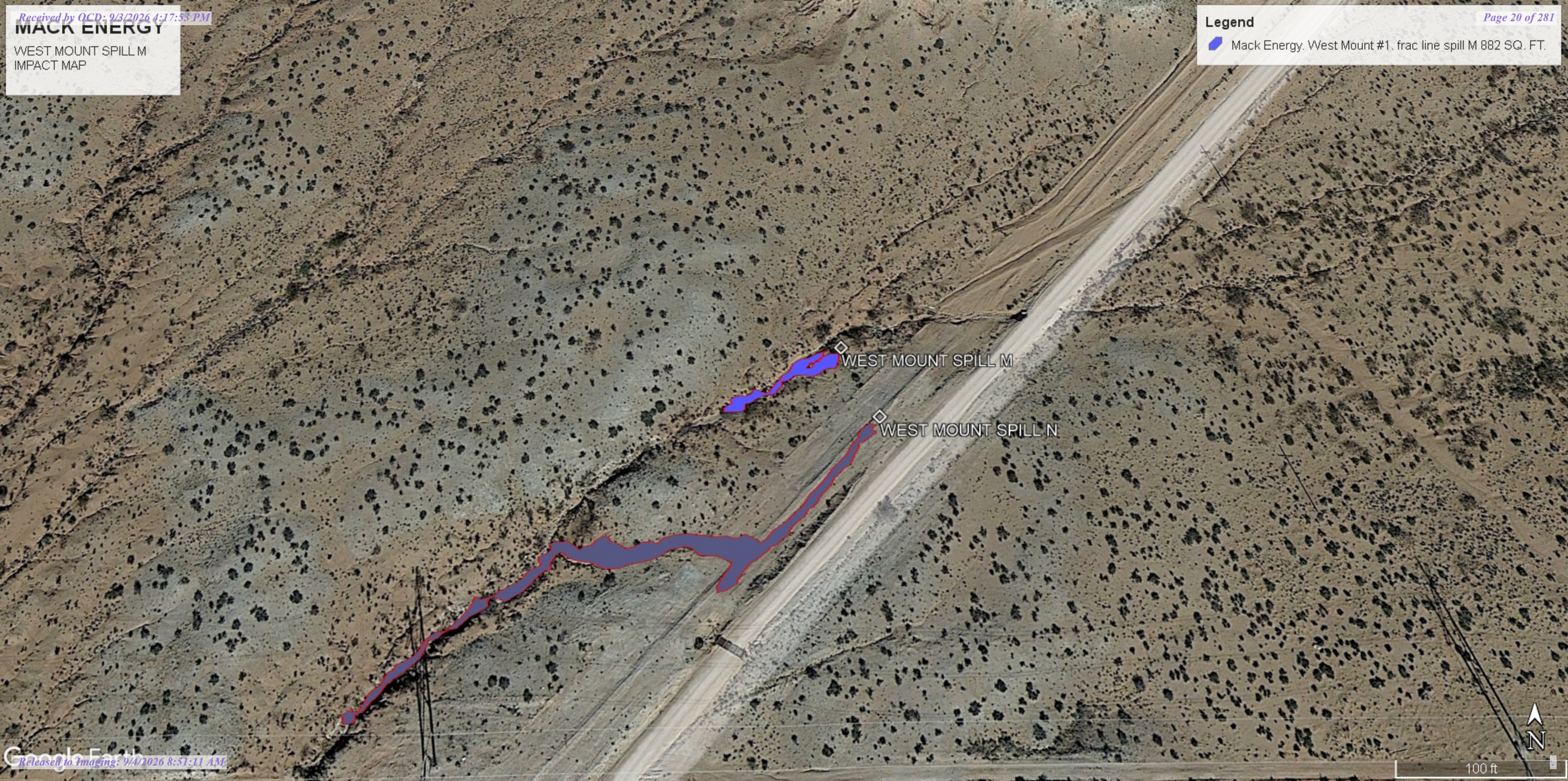


MACK ENERGY

WEST MOUNT SPILL M
IMPACT MAP

Legend

 Mack Energy, West Mount #1, frac line spill M 882 SQ. FT.



WEST MOUNT SPILL M

WEST MOUNT SPILL N



Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition

In areas that have similar climate and topography, differences in the kind and amount of rangeland or forest understory vegetation are closely related to the kind of soil. Effective management is based on the relationship between the soils and vegetation and water.

This table shows, for each soil that supports vegetation, the ecological site, plant association, or habitat type; the total annual production of vegetation in favorable, normal, and unfavorable years; the characteristic vegetation; and the average percentage of each species. An explanation of the column headings in the table follows.

An *ecological site*, *plant association*, or *habitat type* is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time throughout the soil development process; a characteristic hydrology, particularly infiltration and runoff that has developed over time; and a characteristic plant community (kind and amount of vegetation). The hydrology of the site is influenced by development of the soil and plant community. The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. The plant community on an ecological site, plant association, or habitat type is typified by an association of species that differs from that of other ecological sites, plant associations, or habitat types in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service (NRCS). Descriptions of plant associations or habitat types are available from local U.S. Forest Service offices.

Total dry-weight production is the amount of vegetation that can be expected to grow annually in a well managed area that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation for favorable, normal, and unfavorable years. In a favorable year, the amount and distribution of precipitation and the temperatures make growing conditions substantially better than average. In a normal year, growing conditions are about average. In an unfavorable year, growing conditions are well below average, generally because of low available soil moisture. Yields are adjusted to a common percent of air-dry moisture content.

Characteristic vegetation (the grasses, forbs, shrubs, and understory trees that make up most of the potential natural plant community on each soil) is listed by common name. Under *rangeland composition and forest understory*, the expected percentage of the total annual production is given for each species making up the characteristic vegetation. The percentages are by dry weight for rangeland. Percentages for forest understory are by either dry weight or canopy cover. The amount that can be used as forage depends on the kinds of grazing animals and on the grazing season.

Range management requires knowledge of the kinds of soil and of the potential natural plant community. It also requires an evaluation of the present range similarity index and rangeland trend. Range similarity index is determined by comparing the present plant community with the potential natural plant community on a particular rangeland ecological site. The more closely the existing community resembles the potential community, the higher the range similarity index. Rangeland trend is defined as the direction of change in an existing plant community relative to the potential natural plant community. Further information about the range similarity index and rangeland trend is available in the "National Range and Pasture Handbook," which is available in local offices of NRCS or on the Internet.

The objective in range management is to control grazing so that the plants growing on a site are about the same in kind and amount as the potential natural plant community for that site. Such management generally results in the optimum production of vegetation, control of undesirable brush species, conservation of water, and control of erosion. Sometimes, however, an area with a range similarity index somewhat below the potential meets grazing needs, provides wildlife habitat, and protects soil and water resources.

Reference:

United States Department of Agriculture, Natural Resources Conservation Service, [National range and pasture handbook](#).

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition---Chaves County, New Mexico,
Southern Part

WEST MOUNT SPILL M

Report—Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

6/5/2024
Page 3 of 6

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition---Chaves County, New Mexico,
Southern Part

WEST MOUNT SPILL M

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition—Chaves County, New Mexico, Southern Part								
Map unit symbol and soil name	Ecological Site, Plant Association, or Habitat Type	Total dry-weight production			Characteristic rangeland or forest understory vegetation	Composition		
		Favorable year	Normal year	Unfavorable year			Rangeland	Forest understory
		<i>Lb/ac</i>	<i>Lb/ac</i>	<i>Lb/ac</i>		<i>Pct dry wt</i>	<i>Pct dry wt</i>	
TS—Tencee-Sotim association								



Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition---Chaves County, New Mexico,
Southern Part

WEST MOUNT SPILL M

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition--Chaves County, New Mexico, Southern Part								
Map unit symbol and soil name	Ecological Site, Plant Association, or Habitat Type	Total dry-weight production			Characteristic rangeland or forest understory vegetation	Composition		
		Favorable year	Normal year	Unfavorable year			Rangeland	Forest understory
		Lb/ac	Lb/ac	Lb/ac		Pct dry wt	Pct dry wt	
Tencee	Shallow (R070BC025NM)	500	375	125	black grama	20		
					bush muhly	20		
					creosotebush	10		
					other perennial forbs	10		
					other perennial grasses	10		
					broom snakeweed	5		
					Eriogonum	5		
					low woollygrass	5		
					mariola	5		
					rabo de ardilla	5		
					sand dropseed	5		
					crown of thorns	3		
					fourwing saltbush	3		
					javelina brush	2		
					Nevada jointfir	2		
Sotim	Sandy (R070BD004NM)	1,200	—	600	black grama	35		
					dropseed	15		
					other perennial forbs	10		
					blue grama	5		
					bush muhly	5		
					little bluestem	5		
					other shrubs	5		
					other perennial grasses	5		
					plains lovegrass	5		
					threeawn	5		
					yucca	5		
USDA Natural Resources Conservation Service				Web Soil Survey National Cooperative Soil Survey				6/5/2024 Page 5 of 6

Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition---Chaves County, New Mexico,
Southern Part

WEST MOUNT SPILL M

Data Source Information

Soil Survey Area: Chaves County, New Mexico, Southern Part

Survey Area Data: Version 18, Sep 7, 2023



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

6/5/2024
Page 6 of 6

Soil Map—Chaves County, New Mexico, Southern Part
(WEST MOUNT SPILL M)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

6/5/2024
Page 1 of 3

Soil Map—Chaves County, New Mexico, Southern Part
(WEST MOUNT SPILL M)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chaves County, New Mexico, Southern Part

Survey Area Data: Version 18, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 12, 2022—Dec 2, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
TOF	Torriorthents, very steep	7.8	94.8%
TS	Tencee-Sotim association	0.4	5.2%
Totals for Area of Interest		8.2	100.0%

National Flood Hazard Layer FIRMette



104°4'58"W 32°59'4"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°4'21"W 32°58'34"N

Released to Imaging: 9/4/2026 8:34:11 AM

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/5/2024 at 1:39 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Legend

- High
- Low
- Medium
- WEST MOUNT SPILL M



Legend

-  Mack Energy. West Mount #1. frac line spill M 882 SQ. FT.
-  WEST MOUNT SPILL





New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 586183.44 **Northing (Y):** 3649489.18 **Radius:** 1000

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.



New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 586183.44 **Northing (Y):** 3649489.18 **Radius:** 5000

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.



New Mexico Office of the State Engineer

Wells with Well Log Information

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD Sub-Code	basin	County	Source	q 6	q 4	q 1	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
RA 12428	RA	CH	Shallow	4	2	1	21	15S	28E		580579	3652317	6277	07/28/2016	08/04/2016	08/08/2016	170	125	DONALD KUEHN III	1058
RA 12429 POD1	RA	CH	Shallow	1	1	4	32	15S	28E		579093	3648401	7173	11/17/2016	11/17/2016	11/28/2016	62	27	EADES, ALAN	1044
RA 09248	RA	CH	Shallow	1	4	3	17	15S	28E		578704	3652884*	8213	07/10/1996	07/13/1996	07/25/1996	150	45	RAYMOND ANDERSON	1344
RA 10280	RA	CH	Shallow	4	3	3	17	15S	28E		578501	3652680*	8318	06/20/2002	07/15/2002	04/23/2003	70	40	CARREON, FERNANDO	1490
RA 09059	RA	CH	Shallow	2	4	4	18	15S	28E		578099	3652875*	8764	11/13/1995	01/15/1996	02/08/1997	110	35	RAYMOND ANDERSON	1344
L 14514 POD1	L	LE	Shallow	2	2	1	32	15S	36E		595494	3649622	9311	08/09/2018	08/10/2018	08/17/2018	208	77	JOHN GOERTZEN	1611
RA 09342	RA	ED	Shallow	4	4	3	19	16S	29E		582737	3640640*	9496	05/02/1998	05/03/1998	05/08/1998	220	110	DELFORD MARTIN	1064

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 586183.44

Northing (Y): 3649489.18

Radius: 10000

*UTM location was derived from PLSS - see Help

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.

6/5/24 11:48 AM

Page 1 of 1

WELLS WITH WELL LOG INFORMATION



New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	RA 09059	2	4	4	18	15S	28E	578099	3652875*

Driller License: 1344 **Driller Company:** ANDERSON, RAYMOND

Driller Name: RAYMOND ANDERSON

Drill Start Date: 11/13/1995	Drill Finish Date: 01/15/1996	Plug Date:
Log File Date: 02/08/1997	PCW Rcv Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield:
Casing Size: 4.50	Depth Well: 110 feet	Depth Water: 35 feet

Water Bearing Stratifications:	Top	Bottom	Description
	60	65	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	30	90

*UTM location was derived from PLSS - see Help

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New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	RA 09248	1	4	3	17	15S	28E	578704	3652884*

Driller License: 1344 **Driller Company:** ANDERSON, RAYMOND

Driller Name: RAYMOND ANDERSON

Drill Start Date: 07/10/1996

Drill Finish Date: 07/13/1996

Plug Date:

Log File Date: 07/25/1996

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 2 GPM

Casing Size: 4.50

Depth Well: 150 feet

Depth Water: 45 feet

Water Bearing Stratifications:

Top Bottom Description

50	60	Sandstone/Gravel/Conglomerate
----	----	-------------------------------

Casing Perforations:

Top Bottom

45	100
----	-----

*UTM location was derived from PLSS - see Help

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6/5/24 11:49 AM

Page 1 of 1

POD SUMMARY - RA 09248



New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	RA 10280	4	3	3	17	15S	28E	578501	3652680*

Driller License: 1490	Driller Company: FERNANDO'S WATER WELL
Driller Name: CARREON, FERNANDO	
Drill Start Date: 06/20/2002	Drill Finish Date: 07/15/2002
Log File Date: 04/23/2003	PCW Rcv Date:
Pump Type: SUBMER	Pipe Discharge Size: 1.25
Casing Size: 5.00	Depth Well: 70 feet
	Plug Date:
	Source: Shallow
	Estimated Yield: 10 GPM
	Depth Water: 40 feet

Water Bearing Stratifications:	Top	Bottom	Description
	1	70	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	40	70

*UTM location was derived from PLSS - see Help

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.

6/5/24 11:49 AM

Page 1 of 1

POD SUMMARY - RA 10280



New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
RA 12428		4	2	1	21	15S	28E	580579	3652317 

Driller License: 1058	Driller Company: KEY'S DRILLING & PUMP SERVICE
Driller Name: DONALD KUEHN III	
Drill Start Date: 07/28/2016	Drill Finish Date: 08/04/2016
Log File Date: 08/08/2016	PCW Rcv Date:
Pump Type:	Pipe Discharge Size:
Casing Size: 4.50	Depth Well: 170 feet
	Plug Date:
	Source: Shallow
	Estimated Yield: 15 GPM
	Depth Water: 125 feet

Water Bearing Stratifications:	Top	Bottom	Description
	125	140	Sandstone/Gravel/Conglomerate
	140	160	Sandstone/Gravel/Conglomerate
	160	170	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	125	170



New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
RA 12429	POD1	1	1	4	32	15S	28E	579093	3648401

Driller License: 1044	Driller Company: EADES WELL DRILLING & PUMP SERVICE
Driller Name: EADES, ALAN	
Drill Start Date: 11/17/2016	Drill Finish Date: 11/17/2016
Log File Date: 11/28/2016	PCW Rcv Date:
Pump Type:	Pipe Discharge Size:
Casing Size: 5.13	Depth Well: 62 feet
	Depth Water: 27 feet

Water Bearing Stratifications:	Top	Bottom	Description
	27	33	Sandstone/Gravel/Conglomerate
	33	62	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	22	62

Legend

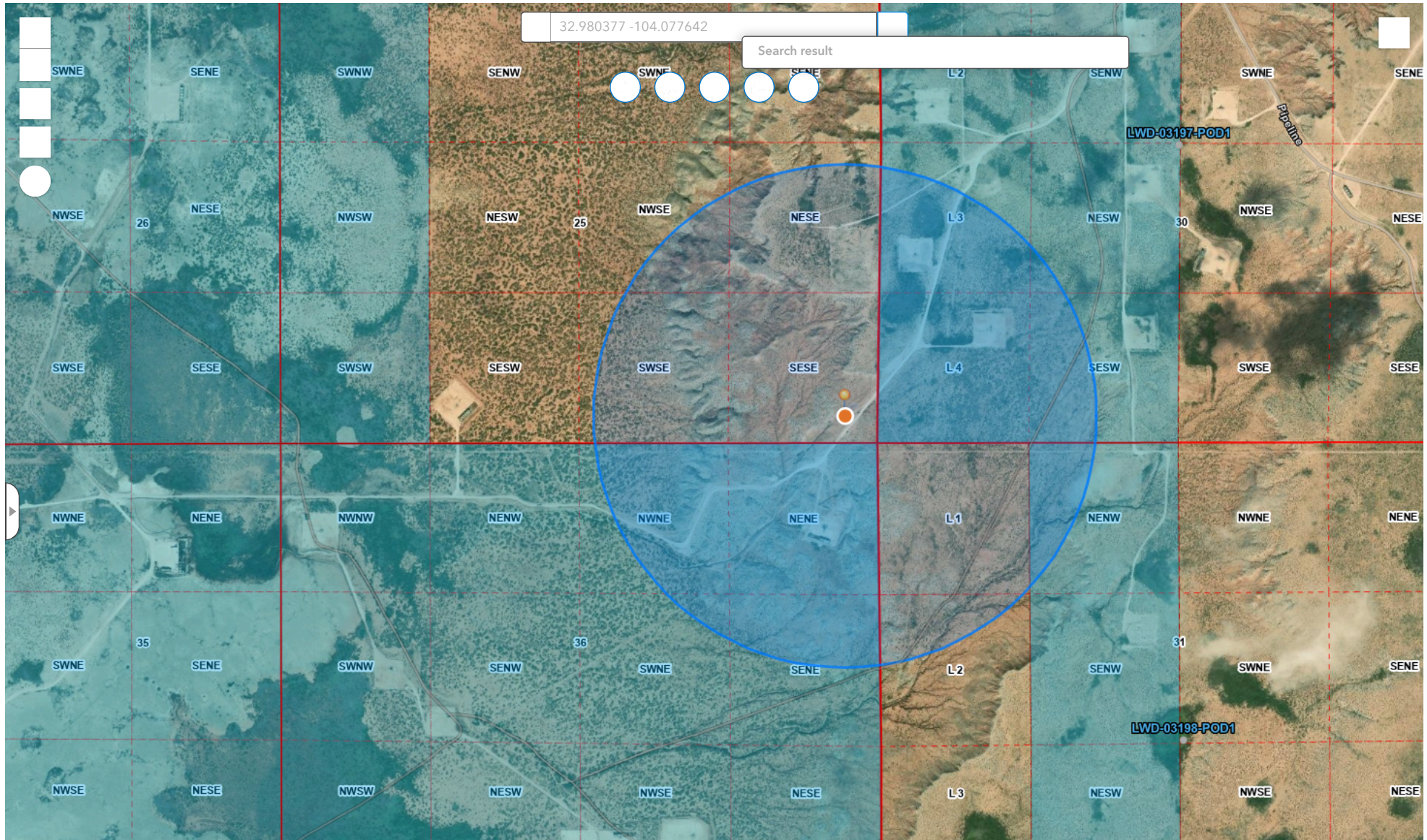
- RA09059-8,764-35 FT
- RA09248-8,213-45 FT
- RA10280-8,318-40 FT
- RA12428-6,277-125 FT
- RA12429 POD1-7,173-27 FT
- WEST MOUNT SPILL M





POD Locations 2.1

Submit Meter Reading Contact



32°59'14.514"N 104°03'46.805"W



1,000 ft

Vantor | cfitzpatrick, | ucc.on.ca | ESRI, US Census | Land Office Geographic Information Center (LOGIC) NM State Land Office PO ... Powered by Esri

Company Name: **MACK**Location Name: **WEST MOUNT SPILL M**

Release Date:

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	DATE
SP1	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	2	880								
	4	720								
	6	240								
	8	160	L	ND	ND	ND	ND	ND	29.4	7/18/2024
SP2	SURF	160	L	ND	ND	ND	ND	ND	94.6	12/4/2023
	2	720								
	4	640								
	6	240								
	8	240	L	ND	ND	ND	ND	ND	ND	7/18/2024
SP3	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	2	1120								
	4	800								
	6	720								
	8	320								
	10	320	L	ND	ND	ND	ND	ND	54.9	7/18/2024
SP4	SURF	160	L	ND	ND	ND	ND	ND	33.5	12/4/2023
	2	2160								
	4	1680								
	6	1120								
	8	800								
	10	640								
	12	320								
	14	320	L	ND	ND	ND	ND	ND	49.9	7/18/2024
SP5	SURF	160	L	ND	ND	ND	ND	ND	99.5	12/4/2023
	2	2720								
	4	2880								

	6	2320								
	8	1680								
	10	1200								
	12	960								
	14	720								
	16	400								
	18	320	L	ND	ND	ND	ND	ND	50.7	7/18/2024
SP6	SURF	160	L	ND	ND	ND	ND	ND	34.8	12/4/2023
	2	2320								
	4	2560								
	6	2160								
	8	1520								
	10	1120								
	12	880								
	14	720								
	16	320								
	18	240	L	ND	ND	ND	ND	ND	25.2	7/18/2024
SP7	SURF	160	L	ND	ND	ND	ND	ND	95.3	12/4/2023
	2	960								
	4	960								
	6	400								
	8	240	L	ND	ND	ND	ND	ND	25.2	7/18/2024
SP8	SURF	160	L	ND	ND	ND	ND	ND	79.5	12/4/2023
	2	720								
	4	640								
	6	320								
	8	240	L	ND	ND	ND	ND	ND	25.4	7/18/2024
SP9	SURF	>4000	L	ND	ND	ND	ND	ND	7900	12/4/2023
	2	720								
	4	640								

	6	240								
	8	240	L	ND	ND	ND	ND	ND	25	7/18/2024
SW1	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	800								
	2	400								
	3	320	L	ND	ND	ND	ND	ND	21.4	7/17/2024
SW2	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	400								
	2	240	L	ND	ND	ND	ND	ND	21.4	7/17/2024
SW3	SURF	160	L	ND	ND	ND	ND	ND	112	12/4/2023
	1	640								
	2	240								
	3	240	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW4	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	640								
	2	320								
	3	240	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW5	SURF	240	L	ND	ND	ND	ND	ND	21.7	12/4/2023
	1	720								
	2	240								
	3	160	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW6	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	320								
	2	160	L	ND	ND	ND	ND	ND	21.1	7/17/2024
SW7	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	640								
	2	240								

	3	160	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW8	SURF	160	L	ND	ND	ND	ND	ND	ND	12/4/2023
	1	800								
	2	320								
	3	160	L	ND	ND	ND	ND	ND	ND	7/17/2024
SW9	SURF	2800	L	ND	ND	ND	ND	ND	2570	12/4/2023
	1	640								
	2	320								
	3	160	L	ND	ND	ND	ND	ND	ND	7/17/2024

CLIENTS MACK ENERGY
LOCATION WEST MOUNT SPILL M
Delineation GPS

Location	Longitute	Latitude
Sp1	32.980377°	-104.077699°
Sp2	32.980358°	-104.077736°
Sp3	32.980333°	-104.077764°
Sp4	32.980301°	-104.077798°
Sp5	32.980285°	-104.077842°
Sp6	32.980262°	-104.077884°
Sp7	32.980339°	-104.077719°
Sp8	32.980355°	-104.077699°
Sp9	32.980366°	-104.077670°
SW1	32.980392°	-104.077678°
SW2	32.980364°	-104.077754°
SW3	32.980319°	-104.077790°
SW4	32.980299°	-104.077846°
SW5	32.980244°	-104.077919°
SW6	32.980269°	-104.077851°
SW7	32.980318°	-104.077768°
SW8	32.980345°	-104.077677°
SW9	32.980384°	-104.077648°

MACK ENERGY

WEST MOUNT SPILL M
DELINEATION MAP

Legend

- HORIZONTAL SAMPLE PTS
- Mack Energy, West Mount #1, frac line spill M 882 SQ. FT.
- VERTICAL SAMPLE PTS



WEST MOUNT SPILL M

Report to:
Natalie Gladden



5796 U.S. Hwy 64
Farmington, NM 87401

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



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Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill M

Work Order: E312030

Job Number: 20046-0001

Received: 12/6/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
12/7/23

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: 12/7/23

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill M
Workorder: E312030
Date Received: 12/6/2023 7:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 12/6/2023 7:30:00AM, under the Project Name: West Mount Spill M.

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

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

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

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

Respectfully,

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Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SP 1- SURF	5
SP 2- SURF	6
SP 3- SURF	7
SP 4- SURF	8
SP 5- SURF	9
SP 6- SURF	10
SP 7- SURF	11
SP 8- SURF	12
SP 9- SURF	13
QC Summary Data	14
QC - Volatile Organics by EPA 8021B	14
QC - Nonhalogenated Organics by EPA 8015D - GRO	15
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	16
QC - Anions by EPA 300.0/9056A	17
Definitions and Notes	18
Chain of Custody etc.	19

Sample Summary

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 12/07/23 16:03
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP 1- SURF	E312030-01A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SP 2- SURF	E312030-02A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SP 3- SURF	E312030-03A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SP 4- SURF	E312030-04A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SP 5- SURF	E312030-05A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SP 6- SURF	E312030-06A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SP 7- SURF	E312030-07A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SP 8- SURF	E312030-08A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SP 9- SURF	E312030-09A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.



Sample Data

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 12/7/2023 4:03:33PM
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SP 1- SURF

E312030-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	90.4 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	94.3 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2349061	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>	90.7 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2349068	
Chloride	ND	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 12/7/2023 4:03:33PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 2- SURF

E312030-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	90.0 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	95.0 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2349061	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>	91.7 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2349068	
Chloride	94.6	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 12/7/2023 4:03:33PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 3- SURF

E312030-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	90.0 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	95.4 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2349061	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>	92.2 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2349068	
Chloride	ND	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 12/7/2023 4:03:33PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 4- SURF

E312030-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	89.4 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	95.3 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2349061	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>	89.1 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2349068	
Chloride	33.5	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 4:03:33PM

SP 5- SURF

E312030-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349056
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.1 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349056
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.8 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>						
	90.7 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	99.5	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 12/7/2023 4:03:33PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 6- SURF

E312030-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	89.1 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	93.9 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2349061	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>	90.8 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2349068	
Chloride	34.8	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 4:03:33PM

SP 7- SURF

E312030-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349056
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.3 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349056
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.8 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>						
	94.2 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	95.3	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 12/7/2023 4:03:33PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 8- SURF

E312030-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	92.8 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	93.8 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2349061	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>	91.0 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2349068	
Chloride	79.5	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 12/7/2023 4:03:33PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 9- SURF

E312030-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Benzene	ND	0.0250	1	12/06/23	12/07/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/07/23	
Toluene	ND	0.0250	1	12/06/23	12/07/23	
o-Xylene	ND	0.0250	1	12/06/23	12/07/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/07/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/07/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	93.6 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2349056	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/07/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	93.7 %	70-130		12/06/23	12/07/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL		Batch: 2349061	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/06/23	
<i>Surrogate: n-Nonane</i>	90.4 %	50-200		12/06/23	12/06/23	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2349068	
Chloride	7900	200	10	12/06/23	12/06/23	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/7/2023 4:03:33PM

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 (2349056-BLK1)

Prepared: 12/06/23 Analyzed: 12/06/23

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	7.76		8.00		96.9	70-130			

LCS (2349056-BS1)

Prepared: 12/06/23 Analyzed: 12/06/23

Benzene	4.88	0.0250	5.00		97.6	70-130			
Ethylbenzene	4.73	0.0250	5.00		94.6	70-130			
Toluene	4.91	0.0250	5.00		98.2	70-130			
o-Xylene	4.85	0.0250	5.00		97.0	70-130			
p,m-Xylene	9.77	0.0500	10.0		97.7	70-130			
Total Xylenes	14.6	0.0250	15.0		97.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.88		8.00		98.5	70-130			

Matrix Spike (2349056-MS1)

Source: E312029-23

Prepared: 12/06/23 Analyzed: 12/06/23

Benzene	4.69	0.0250	5.00	ND	93.7	54-133			
Ethylbenzene	4.54	0.0250	5.00	ND	90.7	61-133			
Toluene	4.71	0.0250	5.00	ND	94.2	61-130			
o-Xylene	4.66	0.0250	5.00	ND	93.2	63-131			
p,m-Xylene	9.38	0.0500	10.0	ND	93.8	63-131			
Total Xylenes	14.0	0.0250	15.0	ND	93.6	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.92		8.00		99.1	70-130			

Matrix Spike Dup (2349056-MSD1)

Source: E312029-23

Prepared: 12/06/23 Analyzed: 12/06/23

Benzene	5.20	0.0250	5.00	ND	104	54-133	10.5	20	
Ethylbenzene	5.03	0.0250	5.00	ND	101	61-133	10.3	20	
Toluene	5.22	0.0250	5.00	ND	104	61-130	10.3	20	
o-Xylene	5.16	0.0250	5.00	ND	103	63-131	10.2	20	
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131	10.0	20	
Total Xylenes	15.5	0.0250	15.0	ND	104	63-131	10.1	20	
Surrogate: 4-Bromochlorobenzene-PID	7.81		8.00		97.6	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/7/2023 4:03:33PM

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 (2349056-BLK1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.46		8.00		93.3	70-130			

LCS (2349056-BS2)					Prepared: 12/06/23 Analyzed: 12/06/23				
Gasoline Range Organics (C6-C10)	47.6	20.0	50.0		95.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.60		8.00		95.0	70-130			

Matrix Spike (2349056-MS2)					Source: E312029-23		Prepared: 12/06/23 Analyzed: 12/06/23		
Gasoline Range Organics (C6-C10)	48.4	20.0	50.0	ND	96.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.59		8.00		94.9	70-130			

Matrix Spike Dup (2349056-MSD2)					Source: E312029-23		Prepared: 12/06/23 Analyzed: 12/06/23		
Gasoline Range Organics (C6-C10)	49.7	20.0	50.0	ND	99.5	70-130	2.83	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		8.00		94.2	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/7/2023 4:03:33PM

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 (2349061-BLK1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.5		50.0		95.0	50-200			

LCS (2349061-BS1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Diesel Range Organics (C10-C28)	223	25.0	250		89.2	38-132			
Surrogate: n-Nonane	45.8		50.0		91.7	50-200			

Matrix Spike (2349061-MS1)					Source: E312030-04		Prepared: 12/06/23 Analyzed: 12/06/23		
Diesel Range Organics (C10-C28)	228	25.0	250	ND	91.1	38-132			
Surrogate: n-Nonane	48.2		50.0		96.3	50-200			

Matrix Spike Dup (2349061-MSD1)					Source: E312030-04		Prepared: 12/06/23 Analyzed: 12/06/23		
Diesel Range Organics (C10-C28)	226	25.0	250	ND	90.4	38-132	0.730	20	
Surrogate: n-Nonane	46.1		50.0		92.1	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/7/2023 4:03:33PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2349068-BLK1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Chloride	ND	20.0							
LCS (2349068-BS1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Chloride	249	20.0	250		99.5	90-110			
Matrix Spike (2349068-MS1)					Source: E312030-02		Prepared: 12/06/23 Analyzed: 12/06/23		
Chloride	345	20.0	250	94.6	100	80-120			
Matrix Spike Dup (2349068-MSD1)					Source: E312030-02		Prepared: 12/06/23 Analyzed: 12/06/23		
Chloride	345	20.0	250	94.6	100	80-120	0.0704	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill M	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/07/23 16:03

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- 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: Maan Energy
 Project: West Mount Spill NM
 Project Manager:
 Address:
 City, State, Zip
 Phone:
 Email:
 Report due by:

Bill To
 Attention: ENERGY STAFFING SERVICES
 Address: 2724 NW COUNTY RD
 City, State, Zip HOBBS, NM 88240
 Phone: 575-393-9048
 Email: NATALIE@ENERGYSTAFFINGLLC.COM
BRITTNEY@ENERGYSTAFFINGLLC.COM

SPRINTS					Lab Use Only										Remarks		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/O	GRO/D	BTEX b	VOC by	Metals	Chloride			BGDO	BGDOC		
	12/01/23	S	1	SP 1 - Surf	1									X			
	}	{	{	SP 2 - Surf	2									{			
				SP 3 - Surf	3												
				SP 4 - Surf	4												
				SP 5 - Surf	5												
				SP 6 - Surf	6												
				SP 7 - Surf	7												
				SP 8 - Surf	8												
	12/01/23	S	1	SP 9 - Surf	9									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: Sam Solis

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	
<u>Sam Solis</u>	<u>12/04/23</u>		<u>Michelle Gayle</u>	<u>12-5-23</u>	<u>1300</u>	Received on ice:	<u>Y</u> / N
<u>Michelle Gayle</u>	<u>12-5-23</u>	<u>1600</u>	<u>Andrew Miso</u>	<u>12-5-23</u>	<u>1800</u>	T1	T2 T3
<u>Andrew Miso</u>	<u>12-5-23</u>	<u>2400</u>	<u>Amanteno</u>	<u>12/6/23</u>	<u>7:30</u>	AVG Temp °C	<u>4</u>

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.

 **enviro+tech**

Envirotech Analytical Laboratory

Printed: 12/6/2023 8:35:20AM

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:	Mack Energy	Date Received:	12/06/23 07:30	Work Order ID:	E312030
Phone:	(575) 390-6397	Date Logged In:	12/05/23 14:45	Logged In By:	Jordan Montano
Email:	Natalie@energystaffingllc.com	Due Date:	12/07/23 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? No
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: CourierSample 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? No
 - 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 InstructionComments/Resolution

Time sampled not provided on COC per client.

Project Manager not listed on COC.
Natalie Gladden

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

Date



envirotech Inc.

Report to:
Natalie Gladden



5796 U.S. Hwy 64
Farmington, NM 87401

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



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill M

Work Order: E312031

Job Number: 20046-0001

Received: 12/6/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
12/7/23

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: 12/7/23



Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount Spill M
Workorder: E312031
Date Received: 12/6/2023 7:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 12/6/2023 7:30:00AM, under the Project Name: West Mount Spill M.

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

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

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

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

Respectfully,

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Cell: 775-287-1762
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Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW 1- SURF	5
SW 2- SURF	6
SW 3- SURF	7
SW 4- SURF	8
SW 5- SURF	9
SW 6- SURF	10
SW 7- SURF	11
SW 8- SURF	12
SW 9- SURF	13
QC Summary Data	14
QC - Volatile Organic Compounds by EPA 8260B	14
QC - Nonhalogenated Organics by EPA 8015D - GRO	15
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	16
QC - Anions by EPA 300.0/9056A	17
Definitions and Notes	18
Chain of Custody etc.	19

Sample Summary

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 12/07/23 14:51
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW 1- SURF	E312031-01A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SW 2- SURF	E312031-02A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SW 3- SURF	E312031-03A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SW 4- SURF	E312031-04A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SW 5- SURF	E312031-05A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SW 6- SURF	E312031-06A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SW 7- SURF	E312031-07A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SW 8- SURF	E312031-08A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.
SW 9- SURF	E312031-09A	Soil	12/04/23	12/06/23	Glass Jar, 2 oz.



Sample Data

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 12/7/2023 2:51:59PM
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SW 1- SURF

E312031-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
<i>Surrogate: Bromofluorobenzene</i>		106 %	70-130	12/06/23	12/06/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.0 %	70-130	12/06/23	12/06/23	
<i>Surrogate: Toluene-d8</i>		110 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
<i>Surrogate: Bromofluorobenzene</i>		106 %	70-130	12/06/23	12/06/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.0 %	70-130	12/06/23	12/06/23	
<i>Surrogate: Toluene-d8</i>		110 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
<i>Surrogate: n-Nonane</i>		92.0 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	ND	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 2:51:59PM

SW 2- SURF

E312031-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		106 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		97.1 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		109 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		106 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		97.1 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		109 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
Surrogate: n-Nonane		93.2 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	ND	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 2:51:59PM

SW 3- SURF

E312031-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		103 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		99.4 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		111 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		103 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		99.4 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		111 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
Surrogate: n-Nonane		92.3 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	112	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 2:51:59PM

SW 4- SURF

E312031-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		103 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		104 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		108 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		103 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		104 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		108 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
Surrogate: n-Nonane		92.6 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	ND	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 2:51:59PM

SW 5- SURF

E312031-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		106 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		98.9 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		110 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		106 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		98.9 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		110 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
Surrogate: n-Nonane		91.6 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	21.7	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 2:51:59PM

SW 6- SURF

E312031-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		103 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		98.1 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		108 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		103 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		98.1 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		108 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
Surrogate: n-Nonane		92.0 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	ND	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 2:51:59PM

SW 7- SURF

E312031-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		102 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		98.8 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		110 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		102 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		98.8 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		110 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
Surrogate: n-Nonane		91.9 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	ND	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 2:51:59PM

SW 8- SURF

E312031-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		102 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		97.5 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		108 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		102 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		97.5 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		108 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
Surrogate: n-Nonane		90.8 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	ND	20.0	1	12/06/23	12/06/23	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/7/2023 2:51:59PM

SW 9- SURF

E312031-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Benzene	ND	0.0250	1	12/06/23	12/06/23	
Ethylbenzene	ND	0.0250	1	12/06/23	12/06/23	
Toluene	ND	0.0250	1	12/06/23	12/06/23	
o-Xylene	ND	0.0250	1	12/06/23	12/06/23	
p,m-Xylene	ND	0.0500	1	12/06/23	12/06/23	
Total Xylenes	ND	0.0250	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		105 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		97.7 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		110 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2349055
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/06/23	12/06/23	
Surrogate: Bromofluorobenzene		105 %	70-130	12/06/23	12/06/23	
Surrogate: 1,2-Dichloroethane-d4		97.7 %	70-130	12/06/23	12/06/23	
Surrogate: Toluene-d8		110 %	70-130	12/06/23	12/06/23	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2349061
Diesel Range Organics (C10-C28)	ND	25.0	1	12/06/23	12/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/06/23	12/07/23	
Surrogate: n-Nonane		89.1 %	50-200	12/06/23	12/07/23	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2349068
Chloride	2570	40.0	2	12/06/23	12/06/23	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/7/2023 2:51:59PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2349055-BLK1)

Prepared: 12/06/23 Analyzed: 12/06/23

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: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.496		0.500		99.1	70-130			
Surrogate: Toluene-d8	0.544		0.500		109	70-130			

LCS (2349055-BS1)

Prepared: 12/06/23 Analyzed: 12/06/23

Benzene	2.62	0.0250	2.50		105	70-130			
Ethylbenzene	2.62	0.0250	2.50		105	70-130			
Toluene	2.64	0.0250	2.50		106	70-130			
o-Xylene	2.54	0.0250	2.50		101	70-130			
p,m-Xylene	5.09	0.0500	5.00		102	70-130			
Total Xylenes	7.63	0.0250	7.50		102	70-130			
Surrogate: Bromofluorobenzene	0.515		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.537		0.500		107	70-130			

Matrix Spike (2349055-MS1)

Source: E312031-06

Prepared: 12/06/23 Analyzed: 12/06/23

Benzene	2.37	0.0250	2.50	ND	94.7	48-131			
Ethylbenzene	2.45	0.0250	2.50	ND	97.9	45-135			
Toluene	2.46	0.0250	2.50	ND	98.4	48-130			
o-Xylene	2.38	0.0250	2.50	ND	95.2	43-135			
p,m-Xylene	4.79	0.0500	5.00	ND	95.8	43-135			
Total Xylenes	7.17	0.0250	7.50	ND	95.6	43-135			
Surrogate: Bromofluorobenzene	0.516		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.501		0.500		100	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			

Matrix Spike Dup (2349055-MSD1)

Source: E312031-06

Prepared: 12/06/23 Analyzed: 12/06/23

Benzene	2.46	0.0250	2.50	ND	98.5	48-131	3.95	23	
Ethylbenzene	2.52	0.0250	2.50	ND	101	45-135	3.00	27	
Toluene	2.50	0.0250	2.50	ND	99.8	48-130	1.41	24	
o-Xylene	2.46	0.0250	2.50	ND	98.5	43-135	3.39	27	
p,m-Xylene	4.91	0.0500	5.00	ND	98.2	43-135	2.52	27	
Total Xylenes	7.37	0.0250	7.50	ND	98.3	43-135	2.81	27	
Surrogate: Bromofluorobenzene	0.519		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/7/2023 2:51:59PM

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 (2349055-BLK1)

Prepared: 12/06/23 Analyzed: 12/06/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.496		0.500		99.1	70-130			
Surrogate: Toluene-d8	0.544		0.500		109	70-130			

LCS (2349055-BS2)

Prepared: 12/06/23 Analyzed: 12/06/23

Gasoline Range Organics (C6-C10)	51.2	20.0	50.0		102	70-130			
Surrogate: Bromofluorobenzene	0.539		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		94.9	70-130			
Surrogate: Toluene-d8	0.553		0.500		111	70-130			

Matrix Spike (2349055-MS2)

Source: E312031-06

Prepared: 12/06/23 Analyzed: 12/07/23

Gasoline Range Organics (C6-C10)	49.0	20.0	50.0	ND	97.9	70-130			
Surrogate: Bromofluorobenzene	0.527		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		97.9	70-130			
Surrogate: Toluene-d8	0.548		0.500		110	70-130			

Matrix Spike Dup (2349055-MSD2)

Source: E312031-06

Prepared: 12/06/23 Analyzed: 12/07/23

Gasoline Range Organics (C6-C10)	47.4	20.0	50.0	ND	94.8	70-130	3.28	20	
Surrogate: Bromofluorobenzene	0.539		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		98.0	70-130			
Surrogate: Toluene-d8	0.547		0.500		109	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/7/2023 2:51:59PM

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 (2349061-BLK1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.5		50.0		95.0	50-200			

LCS (2349061-BS1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Diesel Range Organics (C10-C28)	223	25.0	250		89.2	38-132			
Surrogate: n-Nonane	45.8		50.0		91.7	50-200			

Matrix Spike (2349061-MS1)					Source: E312030-04		Prepared: 12/06/23 Analyzed: 12/06/23		
Diesel Range Organics (C10-C28)	228	25.0	250	ND	91.1	38-132			
Surrogate: n-Nonane	48.2		50.0		96.3	50-200			

Matrix Spike Dup (2349061-MSD1)					Source: E312030-04		Prepared: 12/06/23 Analyzed: 12/06/23		
Diesel Range Organics (C10-C28)	226	25.0	250	ND	90.4	38-132	0.730	20	
Surrogate: n-Nonane	46.1		50.0		92.1	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/7/2023 2:51:59PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2349068-BLK1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Chloride	ND	20.0							
LCS (2349068-BS1)					Prepared: 12/06/23 Analyzed: 12/06/23				
Chloride	249	20.0	250		99.5	90-110			
Matrix Spike (2349068-MS1)					Source: E312030-02		Prepared: 12/06/23 Analyzed: 12/06/23		
Chloride	345	20.0	250	94.6	100	80-120			
Matrix Spike Dup (2349068-MSD1)					Source: E312030-02		Prepared: 12/06/23 Analyzed: 12/06/23		
Chloride	345	20.0	250	94.6	100	80-120	0.0704	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill M	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/07/23 14:51

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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: <u>Maack Energy</u>				Bill To				Lab Use Only				TAT				EPA Program					
Project: <u>West Mount Spill M</u>				Attention: <u>ENERGY STAFFING SERVICES</u>				Lab WO# <u>E 312031</u>				Job Number <u>70640-0001</u>				1D	2D	3D	Standard	CWA	SDWA
Project Manager:				Address: <u>2724 NW COUNTY RD</u>				Analysis and Method													
Address:				City, State, Zip <u>HOBBS, NM 88240</u>																	
City, State, Zip				Phone: <u>575-393-9048</u>																	
Phone:				Email: <u>NATALIE@ENERGYSTAFFINGLLC.COM</u>																	
Email:				BRITTNEY@ENERGYSTAFFINGLLC.COM																	
Report due by:																					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX								
	12/04/23	S	1	SW 1 - Surf	1																
				SW 2 - Surf	2																
				SW 3 - Surf	3																
				SW 4 - Surf	4																
				SW 5 - Surf	5																
				SW 6 - Surf	6																
				SW 7 - Surf	7																
				SW 8 - Surf	8																
	12/04/23	S	1	SW 9 - Surf	9																

Additional Instructions:

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

Sampled by: Juan Solis

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
<u>Juan Solis</u>	12/04/23		<u>Michelle Gayle</u>	12-5-23	1300	Received on ice: <u>Y</u> N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1
<u>Michelle Gayle</u>	12-5-23	1600	<u>Andrew Moss</u>	12-5-23	1800	T2
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T3
<u>Andrew Moss</u>	12-5-23	2400	<u>Montero</u>	12/6/23	7:30	AVG Temp °C <u>4</u>

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: 12/6/2023 8:35:36AM

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:	Mack Energy	Date Received:	12/06/23 07:30	Work Order ID:	E312031
Phone:	(575) 390-6397	Date Logged In:	12/05/23 14:46	Logged In By:	Jordan Montano
Email:	Natalie@energystaffingllc.com	Due Date:	12/07/23 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? No
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: CourierSample 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? No
 - 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 InstructionComments/Resolution

Time sampled not provided on COC per client.

Project Manager not listed on COC.
Natalie Gladden

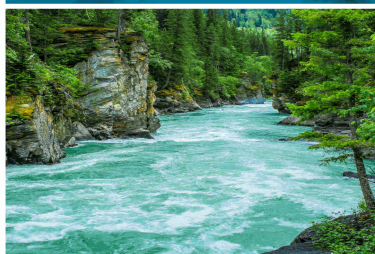
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Natalie Gladden



5796 U.S. Hwy 64
Farmington, NM 87401

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



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill M

Work Order: E407155

Job Number: 20046-0001

Received: 7/19/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/22/24

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: 7/22/24



Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount Spill M
Workorder: E407155
Date Received: 7/19/2024 7:15:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/19/2024 7:15:00AM, under the Project Name: West Mount Spill M.

The analytical test results summarized in this report with the Project Name: West Mount Spill M 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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Laboratory Administrator
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Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW 1 - 3'	5
SW 2 - 2'	6
SW 3 - 3'	7
SW 4 - 3'	8
SW 5 - 3'	9
SW 6 - 2'	10
SW 7 - 3'	11
SW 8 - 3'	12
SW 9 - 3'	13
QC Summary Data	14
QC - Volatile Organics by EPA 8021B	14
QC - Nonhalogenated Organics by EPA 8015D - GRO	15
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	16
QC - Anions by EPA 300.0/9056A	17
Definitions and Notes	18
Chain of Custody etc.	19

Sample Summary

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 07/22/24 12:06
--	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW 1 - 3'	E407155-01A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.
SW 2 - 2'	E407155-02A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.
SW 3 - 3'	E407155-03A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.
SW 4 - 3'	E407155-04A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.
SW 5 - 3'	E407155-05A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.
SW 6 - 2'	E407155-06A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.
SW 7 - 3'	E407155-07A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.
SW 8 - 3'	E407155-08A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.
SW 9 - 3'	E407155-09A	Soil	07/17/24	07/19/24	Glass Jar, 2 oz.



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/22/2024 12:06:37PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 1 - 3'

E407155-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	90.9 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	94.7 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2429101	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/19/24	
<i>Surrogate: n-Nonane</i>	75.1 %	50-200		07/19/24	07/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2429110	
Chloride	21.4	20.0	1	07/19/24	07/19/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/22/2024 12:06:37PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 2 - 2'

E407155-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.2 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.3 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2429101	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/19/24	
<i>Surrogate: n-Nonane</i>						
	75.9 %	50-200		07/19/24	07/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2429110	
Chloride	21.4	20.0	1	07/19/24	07/19/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/22/2024 12:06:37PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 3 - 3'

E407155-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	91.9 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	97.1 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2429101	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/19/24	
<i>Surrogate: n-Nonane</i>	76.0 %	50-200		07/19/24	07/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2429110	
Chloride	ND	20.0	1	07/19/24	07/19/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/22/2024 12:06:37PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 4 - 3'

E407155-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.7 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	97.2 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2429101	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/19/24	
<i>Surrogate: n-Nonane</i>						
	80.2 %	50-200		07/19/24	07/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2429110	
Chloride	ND	20.0	1	07/19/24	07/19/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/22/2024 12:06:37PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 5 - 3'

E407155-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.4 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.1 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2429101	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/19/24	
<i>Surrogate: n-Nonane</i>						
	87.0 %	50-200		07/19/24	07/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2429110	
Chloride	ND	20.0	1	07/19/24	07/19/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/22/2024 12:06:37PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 6 - 2'

E407155-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.8 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.0 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2429101	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/20/24	
<i>Surrogate: n-Nonane</i>						
	84.0 %	50-200		07/19/24	07/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2429110	
Chloride	21.1	20.0	1	07/19/24	07/19/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/22/2024 12:06:37PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SW 7 - 3'

E407155-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	91.2 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2429105	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	96.1 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2429101	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/20/24	
<i>Surrogate: n-Nonane</i>	78.6 %	50-200		07/19/24	07/20/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2429110	
Chloride	ND	20.0	1	07/19/24	07/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
7/22/2024 12:06:37PM

SW 8 - 3'

E407155-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2429105
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.2 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2429105
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.6 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2429101
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/20/24	
<i>Surrogate: n-Nonane</i>						
	87.0 %	50-200		07/19/24	07/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2429110
Chloride	ND	20.0	1	07/19/24	07/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
7/22/2024 12:06:37PM

SW 9 - 3'

E407155-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2429105
Benzene	ND	0.0250	1	07/19/24	07/19/24	
Ethylbenzene	ND	0.0250	1	07/19/24	07/19/24	
Toluene	ND	0.0250	1	07/19/24	07/19/24	
o-Xylene	ND	0.0250	1	07/19/24	07/19/24	
p,m-Xylene	ND	0.0500	1	07/19/24	07/19/24	
Total Xylenes	ND	0.0250	1	07/19/24	07/19/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.9 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2429105
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/19/24	07/19/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.8 %	70-130		07/19/24	07/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2429101
Diesel Range Organics (C10-C28)	ND	25.0	1	07/19/24	07/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/19/24	07/20/24	
<i>Surrogate: n-Nonane</i>						
	83.1 %	50-200		07/19/24	07/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2429110
Chloride	ND	20.0	1	07/19/24	07/19/24	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/22/2024 12:06:37PM

Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2429105-BLK1) Prepared: 07/19/24 Analyzed: 07/19/24

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	7.23		8.00		90.4	70-130			

LCS (2429105-BS1) Prepared: 07/19/24 Analyzed: 07/19/24

Benzene	5.09	0.0250	5.00		102	70-130			
Ethylbenzene	4.90	0.0250	5.00		98.1	70-130			
Toluene	5.03	0.0250	5.00		101	70-130			
o-Xylene	4.89	0.0250	5.00		97.8	70-130			
p,m-Xylene	9.95	0.0500	10.0		99.5	70-130			
Total Xylenes	14.8	0.0250	15.0		98.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.27		8.00		90.9	70-130			

Matrix Spike (2429105-MS1) Source: E407151-04 Prepared: 07/19/24 Analyzed: 07/19/24

Benzene	4.98	0.0250	5.00	ND	99.6	54-133			
Ethylbenzene	4.78	0.0250	5.00	ND	95.5	61-133			
Toluene	4.90	0.0250	5.00	ND	98.1	61-130			
o-Xylene	4.77	0.0250	5.00	ND	95.4	63-131			
p,m-Xylene	9.70	0.0500	10.0	ND	97.0	63-131			
Total Xylenes	14.5	0.0250	15.0	ND	96.5	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.23		8.00		90.3	70-130			

Matrix Spike Dup (2429105-MSD1) Source: E407151-04 Prepared: 07/19/24 Analyzed: 07/19/24

Benzene	5.21	0.0250	5.00	ND	104	54-133	4.49	20	
Ethylbenzene	4.99	0.0250	5.00	ND	99.9	61-133	4.44	20	
Toluene	5.13	0.0250	5.00	ND	103	61-130	4.43	20	
o-Xylene	4.99	0.0250	5.00	ND	99.9	63-131	4.52	20	
p,m-Xylene	10.1	0.0500	10.0	ND	101	63-131	4.34	20	
Total Xylenes	15.1	0.0250	15.0	ND	101	63-131	4.40	20	
Surrogate: 4-Bromochlorobenzene-PID	7.21		8.00		90.2	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/22/2024 12:06:37PM

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 (2429105-BLK1) Prepared: 07/19/24 Analyzed: 07/19/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		8.00		95.1	70-130			

LCS (2429105-BS2) Prepared: 07/19/24 Analyzed: 07/19/24

Gasoline Range Organics (C6-C10)	44.0	20.0	50.0		88.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.76		8.00		97.0	70-130			

Matrix Spike (2429105-MS2) Source: E407151-04 Prepared: 07/19/24 Analyzed: 07/19/24

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0	ND	84.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.81		8.00		97.7	70-130			

Matrix Spike Dup (2429105-MSD2) Source: E407151-04 Prepared: 07/19/24 Analyzed: 07/19/24

Gasoline Range Organics (C6-C10)	46.5	20.0	50.0	ND	93.1	70-130	10.1	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.92		8.00		99.1	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/22/2024 12:06:37PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2429101-BLK1)					Prepared: 07/19/24 Analyzed: 07/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	41.8		50.0		83.7	50-200			

LCS (2429101-BS1)					Prepared: 07/19/24 Analyzed: 07/19/24				
Diesel Range Organics (C10-C28)	229	25.0	250		91.7	38-132			
Surrogate: n-Nonane	43.1		50.0		86.3	50-200			

Matrix Spike (2429101-MS1)					Source: E407154-05		Prepared: 07/19/24 Analyzed: 07/19/24		
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.8	38-132			
Surrogate: n-Nonane	39.2		50.0		78.3	50-200			

Matrix Spike Dup (2429101-MSD1)					Source: E407154-05		Prepared: 07/19/24 Analyzed: 07/19/24		
Diesel Range Organics (C10-C28)	222	25.0	250	ND	88.7	38-132	3.47	20	
Surrogate: n-Nonane	41.3		50.0		82.5	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/22/2024 12:06:37PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2429110-BLK1)					Prepared: 07/19/24 Analyzed: 07/19/24				
Chloride	ND	20.0							
LCS (2429110-BS1)					Prepared: 07/19/24 Analyzed: 07/19/24				
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2429110-MS1)					Source: E407155-05		Prepared: 07/19/24 Analyzed: 07/19/24		
Chloride	266	20.0	250	ND	106	80-120			
Matrix Spike Dup (2429110-MSD1)					Source: E407155-05		Prepared: 07/19/24 Analyzed: 07/19/24		
Chloride	265	20.0	250	ND	106	80-120	0.316	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill M	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	07/22/24 12:06

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Additional Instructions:

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 5 °C on subsequent days.

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA



Envirotech Analytical Laboratory

Printed: 7/19/2024 8:35:58AM

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:	Mack Energy	Date Received:	07/19/24 07:15	Work Order ID:	E407155
Phone:	(575) 390-6397	Date Logged In:	07/18/24 14:41	Logged In By:	Noe Soto
Email:	Natalie@energystaffingllc.com	Due Date:	07/22/24 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? No
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: CourierComments/Resolution

Time Sampled was not in the COC by client. Project manager is missing in COC.

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

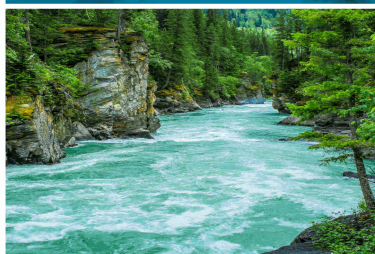
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Natalie Gladden



5796 U.S. Hwy 64
Farmington, NM 87401

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



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill M

Work Order: E407158

Job Number: 20046-0001

Received: 7/22/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/23/24

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: 7/23/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill M
Workorder: E407158
Date Received: 7/22/2024 8:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/22/2024 8:30:00AM, under the Project Name: West Mount Spill M.

The analytical test results summarized in this report with the Project Name: West Mount Spill M 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
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Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SP 1-8'	5
SP 2-8'	6
SP 3-10'	7
SP 4-14'	8
SP 5-18'	9
SP 6-18'	10
SP 7-8'	11
SP 8-8'	12
SP 9-8'	13
QC Summary Data	14
QC - Volatile Organics by EPA 8021B	14
QC - Nonhalogenated Organics by EPA 8015D - GRO	15
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	16
QC - Anions by EPA 300.0/9056A	17
Definitions and Notes	18
Chain of Custody etc.	19

Sample Summary

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 07/23/24 12:45
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP 1-8'	E407158-01A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.
SP 2-8'	E407158-02A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.
SP 3-10'	E407158-03A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.
SP 4-14'	E407158-04A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.
SP 5-18'	E407158-05A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.
SP 6-18'	E407158-06A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.
SP 7-8'	E407158-07A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.
SP 8-8'	E407158-08A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.
SP 9-8'	E407158-09A	Soil	07/18/24	07/22/24	Glass Jar, 2 oz.



Sample Data

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount Spill M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 7/23/2024 12:45:02PM
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SP 1-8'

E407158-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.7 %	70-130	07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %	70-130	07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2430001	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
<i>Surrogate: n-Nonane</i>		106 %	50-200	07/22/24	07/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2430006	
Chloride	29.4	20.0	1	07/22/24	07/22/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
7/23/2024 12:45:02PM

SP 2-8'

E407158-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: BA		Batch: 2430007
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.4 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: BA		Batch: 2430007
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	106 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2430001
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		07/22/24	07/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2430006
Chloride	ND	20.0	1	07/22/24	07/22/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
7/23/2024 12:45:02PM

SP 3-10'

E407158-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.3 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	106 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2430001	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		07/22/24	07/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2430006	
Chloride	54.9	20.0	1	07/22/24	07/22/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/23/2024 12:45:02PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 4-14'

E407158-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.6 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	106 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2430001	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
<i>Surrogate: n-Nonane</i>						
	109 %	50-200		07/22/24	07/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2430006	
Chloride	49.9	20.0	1	07/22/24	07/22/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/23/2024 12:45:02PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 5-18'

E407158-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.4 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	106 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2430001	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
<i>Surrogate: n-Nonane</i>						
	103 %	50-200		07/22/24	07/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2430006	
Chloride	50.7	20.0	1	07/22/24	07/22/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/23/2024 12:45:02PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 6-18'

E407158-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
Surrogate: 4-Bromochlorobenzene-PID	92.6 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	106 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2430001	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
Surrogate: n-Nonane	102 %	50-200		07/22/24	07/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2430006	
Chloride	25.2	20.0	1	07/22/24	07/22/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/23/2024 12:45:02PM

SP 7-8'

E407158-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	92.7 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	106 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2430001	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
<i>Surrogate: n-Nonane</i>	106 %	50-200		07/22/24	07/22/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2430006	
Chloride	25.2	20.0	1	07/22/24	07/22/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
7/23/2024 12:45:02PM

SP 8-8'

E407158-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.7 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	106 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2430001	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		07/22/24	07/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2430006	
Chloride	25.4	20.0	1	07/22/24	07/22/24	



Sample Data

Mack Energy	Project Name:	West Mount Spill M	Reported: 7/23/2024 12:45:02PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

SP 9-8'
E407158-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Benzene	ND	0.0250	1	07/22/24	07/22/24	
Ethylbenzene	ND	0.0250	1	07/22/24	07/22/24	
Toluene	ND	0.0250	1	07/22/24	07/22/24	
o-Xylene	ND	0.0250	1	07/22/24	07/22/24	
p,m-Xylene	ND	0.0500	1	07/22/24	07/22/24	
Total Xylenes	ND	0.0250	1	07/22/24	07/22/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.9 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2430007	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/22/24	07/22/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	106 %	70-130		07/22/24	07/22/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2430001	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/22/24	07/22/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/22/24	07/22/24	
<i>Surrogate: n-Nonane</i>						
	109 %	50-200		07/22/24	07/22/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2430006	
Chloride	25.0	20.0	1	07/22/24	07/22/24	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/23/2024 12:45:02PM

Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2430007-BLK1) Prepared: 07/22/24 Analyzed: 07/22/24

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	7.50		8.00		93.8	70-130			

LCS (2430007-BS1) Prepared: 07/22/24 Analyzed: 07/22/24

Benzene	5.08	0.0250	5.00		102	70-130			
Ethylbenzene	4.74	0.0250	5.00		94.9	70-130			
Toluene	4.99	0.0250	5.00		99.7	70-130			
o-Xylene	4.82	0.0250	5.00		96.5	70-130			
p,m-Xylene	9.77	0.0500	10.0		97.7	70-130			
Total Xylenes	14.6	0.0250	15.0		97.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.56		8.00		94.5	70-130			

Matrix Spike (2430007-MS1) Source: E407158-05 Prepared: 07/22/24 Analyzed: 07/22/24

Benzene	5.68	0.0250	5.00	ND	114	54-133			
Ethylbenzene	5.30	0.0250	5.00	ND	106	61-133			
Toluene	5.59	0.0250	5.00	ND	112	61-130			
o-Xylene	5.42	0.0250	5.00	ND	108	63-131			
p,m-Xylene	10.9	0.0500	10.0	ND	109	63-131			
Total Xylenes	16.3	0.0250	15.0	ND	109	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.50		8.00		93.8	70-130			

Matrix Spike Dup (2430007-MSD1) Source: E407158-05 Prepared: 07/22/24 Analyzed: 07/22/24

Benzene	5.59	0.0250	5.00	ND	112	54-133	1.54	20	
Ethylbenzene	5.23	0.0250	5.00	ND	105	61-133	1.46	20	
Toluene	5.51	0.0250	5.00	ND	110	61-130	1.38	20	
o-Xylene	5.33	0.0250	5.00	ND	107	63-131	1.60	20	
p,m-Xylene	10.8	0.0500	10.0	ND	108	63-131	1.35	20	
Total Xylenes	16.1	0.0250	15.0	ND	107	63-131	1.43	20	
Surrogate: 4-Bromochlorobenzene-PID	7.49		8.00		93.7	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/23/2024 12:45:02PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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 (2430007-BLK1) Prepared: 07/22/24 Analyzed: 07/22/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.55		8.00		107	70-130			

LCS (2430007-BS2) Prepared: 07/22/24 Analyzed: 07/22/24

Gasoline Range Organics (C6-C10)	40.5	20.0	50.0		81.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.61		8.00		108	70-130			

Matrix Spike (2430007-MS2) Source: E407158-05 Prepared: 07/22/24 Analyzed: 07/22/24

Gasoline Range Organics (C6-C10)	45.1	20.0	50.0	ND	90.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.63		8.00		108	70-130			

Matrix Spike Dup (2430007-MSD2) Source: E407158-05 Prepared: 07/22/24 Analyzed: 07/22/24

Gasoline Range Organics (C6-C10)	40.6	20.0	50.0	ND	81.3	70-130	10.4	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.50		8.00		106	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/23/2024 12:45:02PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2430001-BLK1)					Prepared: 07/22/24 Analyzed: 07/22/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.4		50.0		101	50-200			

LCS (2430001-BS1)					Prepared: 07/22/24 Analyzed: 07/22/24				
Diesel Range Organics (C10-C28)	217	25.0	250		87.0	38-132			
Surrogate: n-Nonane	50.4		50.0		101	50-200			

Matrix Spike (2430001-MS1)					Source: E407162-03		Prepared: 07/22/24 Analyzed: 07/22/24		
Diesel Range Organics (C10-C28)	244	25.0	250	ND	97.7	38-132			
Surrogate: n-Nonane	51.4		50.0		103	50-200			

Matrix Spike Dup (2430001-MSD1)					Source: E407162-03		Prepared: 07/22/24 Analyzed: 07/22/24		
Diesel Range Organics (C10-C28)	246	25.0	250	ND	98.5	38-132	0.729	20	
Surrogate: n-Nonane	52.3		50.0		105	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/23/2024 12:45:02PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2430006-BLK1)					Prepared: 07/22/24 Analyzed: 07/22/24				
Chloride	ND	20.0							
LCS (2430006-BS1)					Prepared: 07/22/24 Analyzed: 07/22/24				
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2430006-MS1)					Source: E407163-01		Prepared: 07/22/24 Analyzed: 07/22/24		
Chloride	289	20.0	250	31.6	103	80-120			
Matrix Spike Dup (2430006-MSD1)					Source: E407163-01		Prepared: 07/22/24 Analyzed: 07/22/24		
Chloride	291	20.0	250	31.6	104	80-120	0.809	20	

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



Definitions and Notes

Mack Energy	Project Name:	West Mount Spill M	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	07/23/24 12:45

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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: <u>Mac Energy</u>				Bill To				Lab Use Only				TAT				EPA Program			
Project: <u>West Mount Spill M</u>				Attention: <u>ENERGY STAFFING SERVICES</u>				Lab WO# <u>E 407158</u>				Job Number <u>20046-0001</u>				1D 2D 3D Standard CWA SDWA			
Project Manager:				Address: <u>2724 NW COUNTY RD</u>															
Address:				City, State, Zip <u>HOBBS, NM 88240</u>												RCRA			
City, State, Zip				Phone: <u>575-393-9048</u>															
Phone:				Email: <u>NATALIE@ENERGYSTAFFINGLLC.COM</u>															
Email:				BRITTNEY@ENERGYSTAFFINGLLC.COM															
Report due by:																			

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	State	Remarks
														NM CO UT AZ TX	
	07/18	S	1	SP 1 - 8'	1							X			
				SP 2 - 8'	2										
				SP 3 - 10'	3										
				SP 4 - 14'	4										
				SP 5 - 18'	5										
				SP 6 - 18'	6										
				SP 7 - 8'	7										
				SP 8 - 8'	8										
	07/18	S	1	SP 9 - 8'	9							X			

Additional Instructions:

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

Sampled by: Juan Solis

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
<u>Juan Solis</u>	07/18/24		<u>Michelle Gonzales</u>	7-19-24	1240	Received on ice: <u>Y/N</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<u>Michelle Gonzales</u>	7-19-24	1600	<u>A.M.</u>	7-19-24	1630	T1 T2 T3
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<u>A.M.</u>	7-19-24	2245	<u>St</u>	7-22-24	0830	AVG Temp °C <u>4</u>

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: 7/22/2024 9:30:40AM

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:	Mack Energy	Date Received:	07/22/24 08:30	Work Order ID:	E407158
Phone:	(575) 390-6397	Date Logged In:	07/19/24 14:26	Logged In By:	Alexa Michaels
Email:	Natalie@energystaffingllc.com	Due Date:	07/23/24 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? No
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: CouierComments/Resolution

Project manager and time sampled are not listed on the COC by client.

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? 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.

**MACK ENERGY CORPORATION
WEST MOUNT SPILL M
DELINEATION SITE PHOTOS**

















Jul 17, 2024 10:56:56 AM
32.9802N 104.07761126W
Chaves County
Mack Energy
West mount (M)
side walls



Jul 17, 2024 8:53:17 AM
32.98028058N 104.07753023W
Chaves County
Mack Energy
West mount (M)
side walls





Natalie Gladden

From: OCDOnline@state.nm.us
Sent: Friday, November 22, 2024 12:59 PM
To: Natalie Gladden
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 405964

To whom it may concern (c/o Natalie Gladden for MACK ENERGY CORP),

The OCD has received the submitted *Notification for (Final) Sampling of a Release (C-141N)*, for incident ID (n#) nAPP2329938319.

The sampling event is expected to take place:

When: 11/29/2024 @ 07:00
Where: P-25-15S-28E 0 FNL 0 FEL (32.980377,-104.077642)

Additional Information: NATALIE GLADDEN 5753906397

Additional Instructions: WEST MOUNT SPILL M
CONTACT NATALIE GLADDEN 5753906397

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

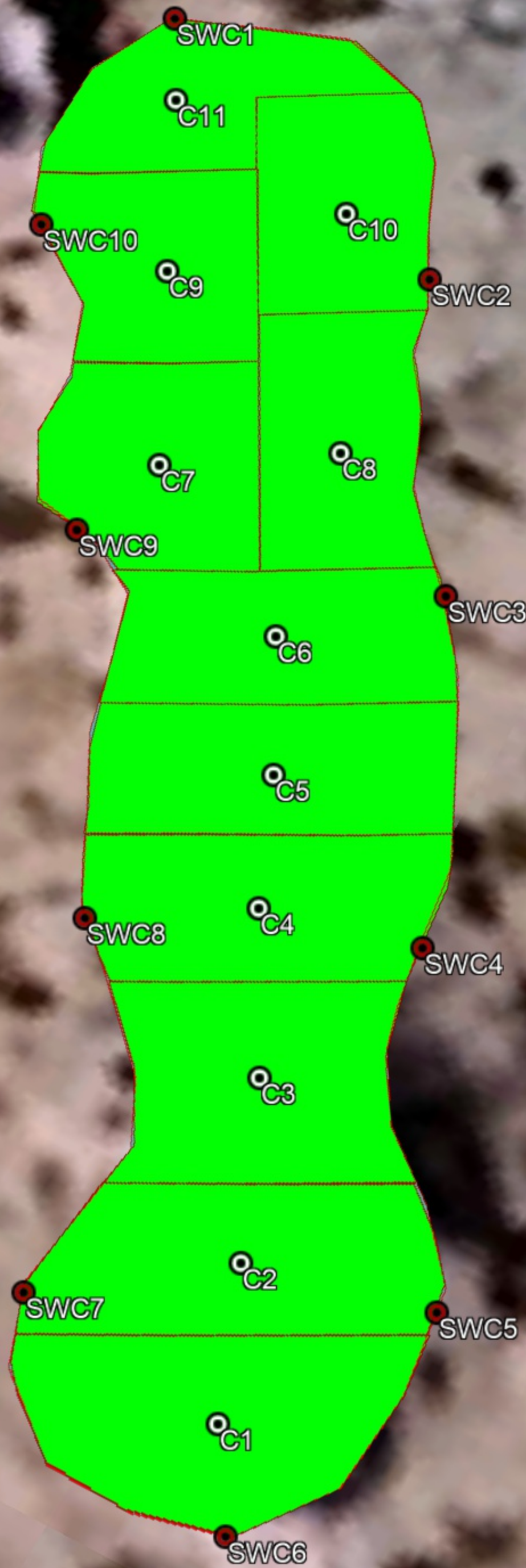
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Company Name: MACK ENERGY**Location Name: WEST MOUNT SPILL M**

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	Notes
COMP1	6	320	L	ND	ND	ND	ND	ND	149	12/16/2024
COMP2	6	160	L	ND	ND	ND	ND	ND	21.3	12/16/2024
COMP3	6	320	L	ND	ND	ND	ND	ND	145	12/16/2024
COMP4	8	160	L	ND	ND	ND	ND	ND	22.6	12/16/2024
COMP5	8	160	L	ND	ND	ND	ND	ND	23.1	12/16/2024
COMP6	8	160	L	ND	ND	ND	ND	ND	62.8	12/16/2024
COMP7	8	160	L	ND	ND	ND	ND	ND	57.6	12/16/2024
COMP8	12	240	L	ND	ND	ND	ND	ND	75.4	12/16/2024
COMP9	12	240	L	ND	ND	ND	ND	ND	82.2	12/16/2024
COMP10	16	240	L	ND	ND	ND	ND	ND	83.8	12/16/2024
COMP11	14	240	L	ND	ND	ND	ND	ND	82.6	12/16/2024
SWCOMP1	6	160	L	ND	ND	ND	ND	ND	180	12/17/2024
SWCOMP2	8	160	L	ND	ND	ND	ND	ND	ND	12/17/2024
SWCOMP3	16	160	L	ND	ND	ND	ND	ND	ND	12/17/2024
SWCOMP4	14	160	L	ND	ND	ND	ND	ND	ND	12/17/2024
SWCOMP5	14	160	L	ND	ND	ND	ND	ND	ND	12/17/2024

SWCOMP6	14	160	L	ND	ND	ND	ND	ND	47.9	12/17/2024
SWCOMP7	16	160	L	ND	ND	ND	ND	ND	39.1	12/17/2024
SWCOMP8	16	160	L	ND	ND	ND	ND	ND	56	12/17/2024
SWCOMP9	8	160	L	ND	ND	ND	ND	ND	77	12/17/2024
SWCOMP10	6	160	L	ND	ND	ND	ND	ND	ND	12/17/2024

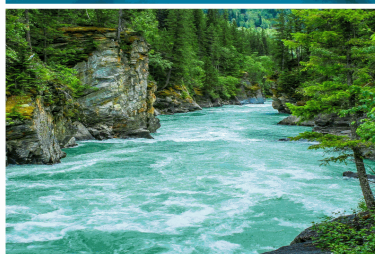
- Feature 1
- Composite
- Side Wall Composite
- SPILL M EXCV MAP



CLIENTS MACK ENERGY
LOCATION West Mount Spill M
Composite GPS

SAMPLE ID	LAT	LONG
C1	32.980254°	-104.077921°
C2	32.980264°	-104.077893°
C3	32.980277°	-104.077860°
C4	32.980292°	-104.077830°
C5	32.980302°	-104.077804°
C6	32.980315°	-104.077777°
C7	32.980351°	-104.077753°
C8	32.980323°	-104.077734°
C9	32.980371°	-104.077711°
C10	32.980347°	-104.077682°
C11	32.980389°	-104.077672°
SWC1	32.980399°	-104.077653°
SWC2	32.980326°	-104.077689°
SWC3	32.980292°	-104.077754°
SWC4	32.980264°	-104.077823°
SWC5	32.980232°	-104.077885°
SWC6	32.980244°	-104.077938°
SWC7	32.980292°	-104.077916°
SWC8	32.980317°	-104.077847°
SWC9	32.980357°	-104.077774°
SWC10	32.980397°	-104.077713°

Report to:
Natalie Gladden



5796 U.S. Hwy 64
Farmington, NM 87401

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



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount M

Work Order: E412132

Job Number: 20046-0001

Received: 12/18/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
12/19/24

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: 12/19/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount M
Workorder: E412132
Date Received: 12/18/2024 8:15:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 12/18/2024 8:15:00AM, under the Project Name: West Mount M.

The analytical test results summarized in this report with the Project Name: West Mount M 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

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Laboratory Administrator
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Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
Sp comp 1-6	5
Sp comp 2-6	6
Sp comp 3-6	7
Sp comp 4-8	8
Sp comp 5-8	9
Sp comp 6-8	10
Sp comp 7-8	11
Sp comp 8-12	12
Sp comp 9-12	13
Sp comp 10-16	14
Sp comp 11-14	15
QC Summary Data	16
QC - Volatile Organics by EPA 8021B	16
QC - Nonhalogenated Organics by EPA 8015D - GRO	17
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	18
QC - Anions by EPA 300.0/9056A	19
Definitions and Notes	20
Chain of Custody etc.	21

Sample Summary

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 12/19/24 12:00
--	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Sp comp 1-6	E412132-01A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 2-6	E412132-02A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 3-6	E412132-03A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 4-8	E412132-04A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 5-8	E412132-05A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 6-8	E412132-06A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 7-8	E412132-07A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 8-12	E412132-08A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 9-12	E412132-09A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 10-16	E412132-10A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.
Sp comp 11-14	E412132-11A	Soil	12/16/24	12/18/24	Glass Jar, 2 oz.



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 1-6
E412132-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.5 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.3 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/18/24	
<i>Surrogate: n-Nonane</i>						
	111 %	50-200		12/18/24	12/18/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	149	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 2-6
E412132-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
Surrogate: 4-Bromochlorobenzene-PID	90.0 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.7 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/18/24	
Surrogate: n-Nonane	122 %	50-200		12/18/24	12/18/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	21.3	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 3-6
E412132-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.9 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.6 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/18/24	
<i>Surrogate: n-Nonane</i>						
	108 %	50-200		12/18/24	12/18/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	145	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/19/2024 12:00:24PM

Sp comp 4-8

E412132-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B		mg/kg	mg/kg	Analyst: SL		Batch: 2451041
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.1 %	70-130	12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO		mg/kg	mg/kg	Analyst: SL		Batch: 2451041
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		91.0 %	70-130	12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO		mg/kg	mg/kg	Analyst: NV		Batch: 2451043
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/18/24	
<i>Surrogate: n-Nonane</i>		119 %	50-200	12/18/24	12/18/24	
Anions by EPA 300.0/9056A		mg/kg	mg/kg	Analyst: DT		Batch: 2451042
Chloride	22.6	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 5-8
E412132-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
Surrogate: 4-Bromochlorobenzene-PID	91.4 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.4 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/18/24	
Surrogate: n-Nonane	116 %	50-200		12/18/24	12/18/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	23.1	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 6-8
E412132-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
Surrogate: 4-Bromochlorobenzene-PID	91.7 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.4 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/18/24	
Surrogate: n-Nonane	110 %	50-200		12/18/24	12/18/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	62.8	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 7-8
E412132-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
Surrogate: 4-Bromochlorobenzene-PID	92.9 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	92.6 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/18/24	
Surrogate: n-Nonane	117 %	50-200		12/18/24	12/18/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	57.6	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 8-12
E412132-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.9 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.9 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/18/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/18/24	
<i>Surrogate: n-Nonane</i>						
	129 %	50-200		12/18/24	12/18/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	75.4	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 9-12
E412132-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
Surrogate: 4-Bromochlorobenzene-PID	94.8 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.6 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/19/24	
Surrogate: n-Nonane	123 %	50-200		12/18/24	12/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	82.2	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 10-16
E412132-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
Surrogate: 4-Bromochlorobenzene-PID	95.5 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.1 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/19/24	
Surrogate: n-Nonane	117 %	50-200		12/18/24	12/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	83.8	20.0	1	12/18/24	12/18/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/19/2024 12:00:24PM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sp comp 11-14
E412132-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Benzene	ND	0.0250	1	12/18/24	12/18/24	
Ethylbenzene	ND	0.0250	1	12/18/24	12/18/24	
Toluene	ND	0.0250	1	12/18/24	12/18/24	
o-Xylene	ND	0.0250	1	12/18/24	12/18/24	
p,m-Xylene	ND	0.0500	1	12/18/24	12/18/24	
Total Xylenes	ND	0.0250	1	12/18/24	12/18/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.8 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2451041	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/18/24	12/18/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.3 %	70-130		12/18/24	12/18/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2451043	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/18/24	12/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/18/24	12/19/24	
<i>Surrogate: n-Nonane</i>						
	118 %	50-200		12/18/24	12/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2451042	
Chloride	82.6	20.0	1	12/18/24	12/18/24	



QC Summary Data

Mack Energy	Project Name:	West Mount M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/19/2024 12:00:24PM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2451041-BLK1) Prepared: 12/18/24 Analyzed: 12/18/24

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		92.4	70-130			

LCS (2451041-BS1) Prepared: 12/18/24 Analyzed: 12/18/24

Benzene	5.11	0.0250	5.00		102	70-130			
Ethylbenzene	4.95	0.0250	5.00		99.0	70-130			
Toluene	5.06	0.0250	5.00		101	70-130			
o-Xylene	4.95	0.0250	5.00		99.1	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.0	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.82		8.00		97.7	70-130			

LCS Dup (2451041-BSD1) Prepared: 12/18/24 Analyzed: 12/18/24

Benzene	5.42	0.0250	5.00		108	70-130	5.96	20	
Ethylbenzene	5.28	0.0250	5.00		106	70-130	6.45	20	
Toluene	5.38	0.0250	5.00		108	70-130	6.15	20	
o-Xylene	5.27	0.0250	5.00		105	70-130	6.29	20	
p,m-Xylene	10.8	0.0500	10.0		108	70-130	6.38	20	
Total Xylenes	16.0	0.0250	15.0		107	70-130	6.35	20	
Surrogate: 4-Bromochlorobenzene-PID	7.44		8.00		93.0	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/19/2024 12:00:24PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

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 (2451041-BLK1) Prepared: 12/18/24 Analyzed: 12/18/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.40		8.00		92.6	70-130			

LCS (2451041-BS2) Prepared: 12/18/24 Analyzed: 12/18/24

Gasoline Range Organics (C6-C10)	46.1	20.0	50.0		92.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		8.00		94.2	70-130			

LCS Dup (2451041-BSD2) Prepared: 12/18/24 Analyzed: 12/18/24

Gasoline Range Organics (C6-C10)	51.2	20.0	50.0		102	70-130	10.5	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.52		8.00		93.9	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/19/2024 12:00:24PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2451043-BLK1) Prepared: 12/18/24 Analyzed: 12/18/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	57.3		50.0		115	50-200			

LCS (2451043-BS1) Prepared: 12/18/24 Analyzed: 12/18/24

Diesel Range Organics (C10-C28)	290	25.0	250		116	38-132			
Surrogate: n-Nonane	62.7		50.0		125	50-200			

Matrix Spike (2451043-MS1) Source: E412132-09 Prepared: 12/18/24 Analyzed: 12/18/24

Diesel Range Organics (C10-C28)	274	25.0	250	ND	110	38-132			
Surrogate: n-Nonane	57.7		50.0		115	50-200			

Matrix Spike Dup (2451043-MSD1) Source: E412132-09 Prepared: 12/18/24 Analyzed: 12/18/24

Diesel Range Organics (C10-C28)	289	25.0	250	ND	116	38-132	5.39	20	
Surrogate: n-Nonane	59.9		50.0		120	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/19/2024 12:00:24PM

Anions by EPA 300.0/9056A

Analyst: DT

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 (2451042-BLK1)					Prepared: 12/18/24 Analyzed: 12/18/24				
Chloride	ND	20.0							
LCS (2451042-BS1)					Prepared: 12/18/24 Analyzed: 12/18/24				
Chloride	258	20.0	250		103	90-110			
LCS Dup (2451042-BSD1)					Prepared: 12/18/24 Analyzed: 12/18/24				
Chloride	257	20.0	250		103	90-110	0.423	20	

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

Definitions and Notes

Mack Energy	Project Name:	West Mount M	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/19/24 12:00

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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

Client Information

Client: **West Energy M**
 Project Manager: **West Energy M**

Address:
 City, State, Zip

Phone:
 Email:

Report due by

Attention: **ENERGY STAFFING SERVICE**
 Address: **1724 NW COUNTY RD**
 City, State, Zip: **11000 NM 85270**
 Phone: **703 908 9008**
 Email: **NATALIE@ENERGYSTAFFING.COM**
ERIL ENERGY MANAGEMENT

Time	Date	Station	Sample ID	Lab Number
	12/12/24	5	1	1
			Sample 1-6	2
			Sample 2-6	3
			Sample 3-6	4
			Sample 4-8	5
			Sample 5-8	6
			Sample 6-8	7
			Sample 8-12	8
			Sample 9-12	9
			Sample 10-16	10

Additional Instructions

Field sample: affect is the solid by and authenticity of this sample. I am aware that temperature, with or without, will affect the sample for at least 24 hours after collection. Considered liquid and may be grounds for legal action.

Unmailed by (Signature):

Received by (Signature):

Received by (Signature):

Received by (Signature):

Received by (Signature):

Received by (Signature):

Received by (Signature):

Received by (Signature):

Received by (Signature):

Lab WOH: **412132**

Job Number: **20046-0001**

Analysis and Method

Lab Use Only

Lab Use Only

Lab Use Only

Lab Use Only

Lab Use Only

Lab Use Only

Lab Use Only

Lab Use Only

Project Information

Project Location

Client: **Westmount**

Project Manager:

Address:

City, State, Zip:

Phone:

Email:

Mail to:
Attention: **WESTMOUNT**
Address: **2724 NW 10th Ave**
City, State, Zip: **HOUSTON, NM 88710**
Phone: **505 394 9048**
Email: **WMT@WESTMOUNT.COM**

Report due by:

Time:

Date:

Sample ID:

Number:

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11/14/24

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Additional Test Options

Received by (Signature): **Avdy Curry**

Date: **12-17-24**

Time: **1415**

Received by (Signature): **Michelle Gonzales**

Date: **12-17-24**

Time: **1440**

Received by (Signature): **John J.**

Date: **12-17-24**

Time: **2315**

Received by (Signature): **John J.**

Date: **12-17-24**

Time: **2315**

Lab Use Only

Job Number: **20046-001**

Analysis and Method

1D

2D

3D

Standard

EPA Program

CWA

SDWA

RCRA

State

NM

CO

UT

AZ

TX

Other

Remarks

Envirotech Analytical Laboratory

Printed: 12/18/2024 10:27:32AM

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:	Mack Energy	Date Received:	12/18/24 08:15	Work Order ID:	E412132
Phone:	(575) 390-6397	Date Logged In:	12/17/24 15:31	Logged In By:	Noe Soto
Email:	Natalie@energystaffingllc.com	Due Date:	12/19/24 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? No
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: CourierComments/Resolution

Time sampled and project manager are not on COC by client.

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? 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

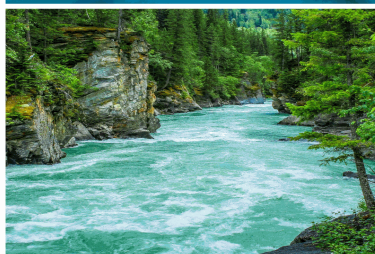
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Natalie Gladden



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount M

Work Order: E412145

Job Number: 20046-0001

Received: 12/19/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
12/20/24

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: 12/20/24



Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount M
Workorder: E412145
Date Received: 12/19/2024 7:45:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 12/19/2024 7:45:00AM, under the Project Name: West Mount M.

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

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

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

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

Respectfully,

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Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
Sw Comp 1-6	5
Sw Comp 2-8	6
Sw Comp 3-16	7
Sw Comp 4-14	8
Sw Comp 5-14	9
Sw Comp 6-14	10
Sw Comp 7-16	11
Sw Comp 8-16	12
Sw Comp 9-8	13
Sw Comp 10-6	14
QC Summary Data	15
QC - Volatile Organic Compounds by EPA8260B	15
QC - Nonhalogenated Organics by EPA 8015D - GRO	16
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	17
QC - Anions by EPA 300.0/9056A	18
Definitions and Notes	19
Chain of Custody etc.	20

Sample Summary

Mack Energy 7 W. Compress Road Artesia NM, 88210	Project Name: West Mount M Project Number: 20046-0001 Project Manager: Natalie Gladden	Reported: 12/20/24 11:57
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Sw Comp 1-6	E412145-01A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 2-8	E412145-02A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 3-16	E412145-03A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 4-14	E412145-04A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 5-14	E412145-05A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 6-14	E412145-06A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 7-16	E412145-07A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 8-16	E412145-08A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 9-8	E412145-09A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.
Sw Comp 10-6	E412145-10A	Soil	12/17/24	12/19/24	Glass Jar, 2 oz.



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/20/2024 11:57:01AM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sw Comp 1-6

E412145-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
<i>Surrogate: Bromofluorobenzene</i>		118 %	70-130	12/19/24	12/19/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.6 %	70-130	12/19/24	12/19/24	
<i>Surrogate: Toluene-d8</i>		113 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
<i>Surrogate: Bromofluorobenzene</i>		118 %	70-130	12/19/24	12/19/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.6 %	70-130	12/19/24	12/19/24	
<i>Surrogate: Toluene-d8</i>		113 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/19/24	
<i>Surrogate: n-Nonane</i>		100 %	50-200	12/19/24	12/19/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	180	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/20/2024 11:57:01AM

Sw Comp 2-8

E412145-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		118 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		91.4 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		113 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		118 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		91.4 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		113 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		102 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	ND	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/20/2024 11:57:01AM

Sw Comp 3-16

E412145-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		122 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		96.0 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		113 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		122 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		96.0 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		113 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		101 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	ND	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/20/2024 11:57:01AM

Sw Comp 4-14

E412145-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		121 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		95.2 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		115 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		121 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		95.2 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		115 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		105 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	ND	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/20/2024 11:57:01AM

Sw Comp 5-14

E412145-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		118 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		114 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		118 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		114 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		108 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	ND	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/20/2024 11:57:01AM

Sw Comp 6-14

E412145-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		116 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		113 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		116 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		113 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		98.6 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	47.9	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy	Project Name:	West Mount M	Reported: 12/20/2024 11:57:01AM
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	

Sw Comp 7-16

E412145-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		119 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		96.1 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		115 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		119 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		96.1 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		115 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		108 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	39.1	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/20/2024 11:57:01AM

Sw Comp 8-16

E412145-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		119 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		93.3 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		114 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		119 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		93.3 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		114 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		95.6 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	56.0	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/20/2024 11:57:01AM

Sw Comp 9-8

E412145-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		116 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		95.4 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		112 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		116 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		95.4 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		112 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		109 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	77.0	20.0	1	12/19/24	12/19/24	



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
12/20/2024 11:57:01AM

Sw Comp 10-6

E412145-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Benzene	ND	0.0250	1	12/19/24	12/19/24	
Ethylbenzene	ND	0.0250	1	12/19/24	12/19/24	
Toluene	ND	0.0250	1	12/19/24	12/19/24	
o-Xylene	ND	0.0250	1	12/19/24	12/19/24	
p,m-Xylene	ND	0.0500	1	12/19/24	12/19/24	
Total Xylenes	ND	0.0250	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		118 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		111 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2451067
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/19/24	12/19/24	
Surrogate: Bromofluorobenzene		118 %	70-130	12/19/24	12/19/24	
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130	12/19/24	12/19/24	
Surrogate: Toluene-d8		111 %	70-130	12/19/24	12/19/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2451072
Diesel Range Organics (C10-C28)	ND	25.0	1	12/19/24	12/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	12/19/24	12/20/24	
Surrogate: n-Nonane		108 %	50-200	12/19/24	12/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2451069
Chloride	ND	20.0	1	12/19/24	12/19/24	



QC Summary Data

Mack Energy	Project Name:	West Mount M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/20/2024 11:57:01AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2451067-BLK1) Prepared: 12/19/24 Analyzed: 12/19/24

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: Bromofluorobenzene	0.594		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.469		0.500		93.8	70-130			
Surrogate: Toluene-d8	0.568		0.500		114	70-130			

LCS (2451067-BS1) Prepared: 12/19/24 Analyzed: 12/19/24

Benzene	2.38	0.0250	2.50		95.2	70-130			
Ethylbenzene	2.51	0.0250	2.50		100	70-130			
Toluene	2.47	0.0250	2.50		98.9	70-130			
o-Xylene	2.62	0.0250	2.50		105	70-130			
p,m-Xylene	5.23	0.0500	5.00		104	70-130			
Total Xylenes	7.84	0.0250	7.50		105	70-130			
Surrogate: Bromofluorobenzene	0.600		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.466		0.500		93.1	70-130			
Surrogate: Toluene-d8	0.559		0.500		112	70-130			

LCS Dup (2451067-BSD1) Prepared: 12/19/24 Analyzed: 12/19/24

Benzene	2.25	0.0250	2.50		90.1	70-130	5.51	23	
Ethylbenzene	2.41	0.0250	2.50		96.3	70-130	4.31	27	
Toluene	2.35	0.0250	2.50		94.0	70-130	5.08	24	
o-Xylene	2.44	0.0250	2.50		97.7	70-130	6.82	27	
p,m-Xylene	4.89	0.0500	5.00		97.8	70-130	6.57	27	
Total Xylenes	7.34	0.0250	7.50		97.8	70-130	6.65	27	
Surrogate: Bromofluorobenzene	0.599		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.459		0.500		91.8	70-130			
Surrogate: Toluene-d8	0.560		0.500		112	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/20/2024 11:57:01AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2451067-BLK1) Prepared: 12/19/24 Analyzed: 12/19/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.594		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.469		0.500		93.8	70-130			
Surrogate: Toluene-d8	0.568		0.500		114	70-130			

LCS (2451067-BS2) Prepared: 12/19/24 Analyzed: 12/19/24

Gasoline Range Organics (C6-C10)	60.8	20.0	50.0		122	70-130			
Surrogate: Bromofluorobenzene	0.609		0.500		122	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.1	70-130			
Surrogate: Toluene-d8	0.582		0.500		116	70-130			

LCS Dup (2451067-BSD2) Prepared: 12/19/24 Analyzed: 12/19/24

Gasoline Range Organics (C6-C10)	60.9	20.0	50.0		122	70-130	0.241	20	
Surrogate: Bromofluorobenzene	0.625		0.500		125	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.462		0.500		92.4	70-130			
Surrogate: Toluene-d8	0.570		0.500		114	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/20/2024 11:57:01AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: HM

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 (2451072-BLK1)					Prepared: 12/19/24 Analyzed: 12/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.4		50.0		107	50-200			

LCS (2451072-BS1)					Prepared: 12/19/24 Analyzed: 12/19/24				
Diesel Range Organics (C10-C28)	273	25.0	250		109	38-132			
Surrogate: n-Nonane	51.1		50.0		102	50-200			

Matrix Spike (2451072-MS1)					Source: E412145-05		Prepared: 12/19/24 Analyzed: 12/19/24		
Diesel Range Organics (C10-C28)	266	25.0	250	ND	107	38-132			
Surrogate: n-Nonane	50.4		50.0		101	50-200			

Matrix Spike Dup (2451072-MSD1)					Source: E412145-05		Prepared: 12/19/24 Analyzed: 12/19/24		
Diesel Range Organics (C10-C28)	270	25.0	250	ND	108	38-132	1.36	20	
Surrogate: n-Nonane	52.2		50.0		104	50-200			



QC Summary Data

Mack Energy	Project Name:	West Mount M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/20/2024 11:57:01AM

Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2451069-BLK1)					Prepared: 12/19/24 Analyzed: 12/19/24				
Chloride	ND	20.0							
LCS (2451069-BS1)					Prepared: 12/19/24 Analyzed: 12/19/24				
Chloride	250	20.0	250		100	90-110			
LCS Dup (2451069-BSD1)					Prepared: 12/19/24 Analyzed: 12/19/24				
Chloride	250	20.0	250		100	90-110	0.0791	20	

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

Definitions and Notes

Mack Energy	Project Name:	West Mount M	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	12/20/24 11:57

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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: <u>Mack Energy</u> Project: <u>Washouville</u> Project Manager: Address: City, State, Zip Phone: Email: Report due by:					Bill To Attention: ENERGY STAFFING SERVICES Address: 2724 NW COUNTY RD City, State, Zip HOBBS, NM 88240 Phone: 575-393-9048 Email: NATALIE@ENERGYSTAFFINGLLC.COM BRITTNEY@ENERGYSTAFFINGLLC.COM					Lab Use Only Lab WO# <u>E412145</u> Job Number <u>200460001</u>					TAT 1D 2D 3D Standard				EPA Program CWA SDWA	
Analysis and Method										RCRA		State		Remarks						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX							
	12/17/24	S	1	SWcomp1-6	1							X								
				SWcomp2-8	2															
				SWcomp3-16	3															
				SWcomp4-14	4															
				SWcomp5-14	5															
				SWcomp6-14	6															
				SWcomp7-16	7															
				SWcomp8-16	8															
				SWcomp9-8	9															
	12/17/24	S	1	SWcomp10-6	10							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: <u>Andy Wurga</u>																		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: <u>(Y) N</u>												
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 <u>4</u>												
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: 12/19/2024 11:51:23AM

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:	Mack Energy	Date Received:	12/19/24 07:45	Work Order ID:	E412145
Phone:	(575) 390-6397	Date Logged In:	12/18/24 16:07	Logged In By:	Noe Soto
Email:	Natalie@energystaffingllc.com	Due Date:	12/20/24 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? No
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: CourierComments/Resolution

Project manager and time sampled are not provided by client on COC.

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? 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

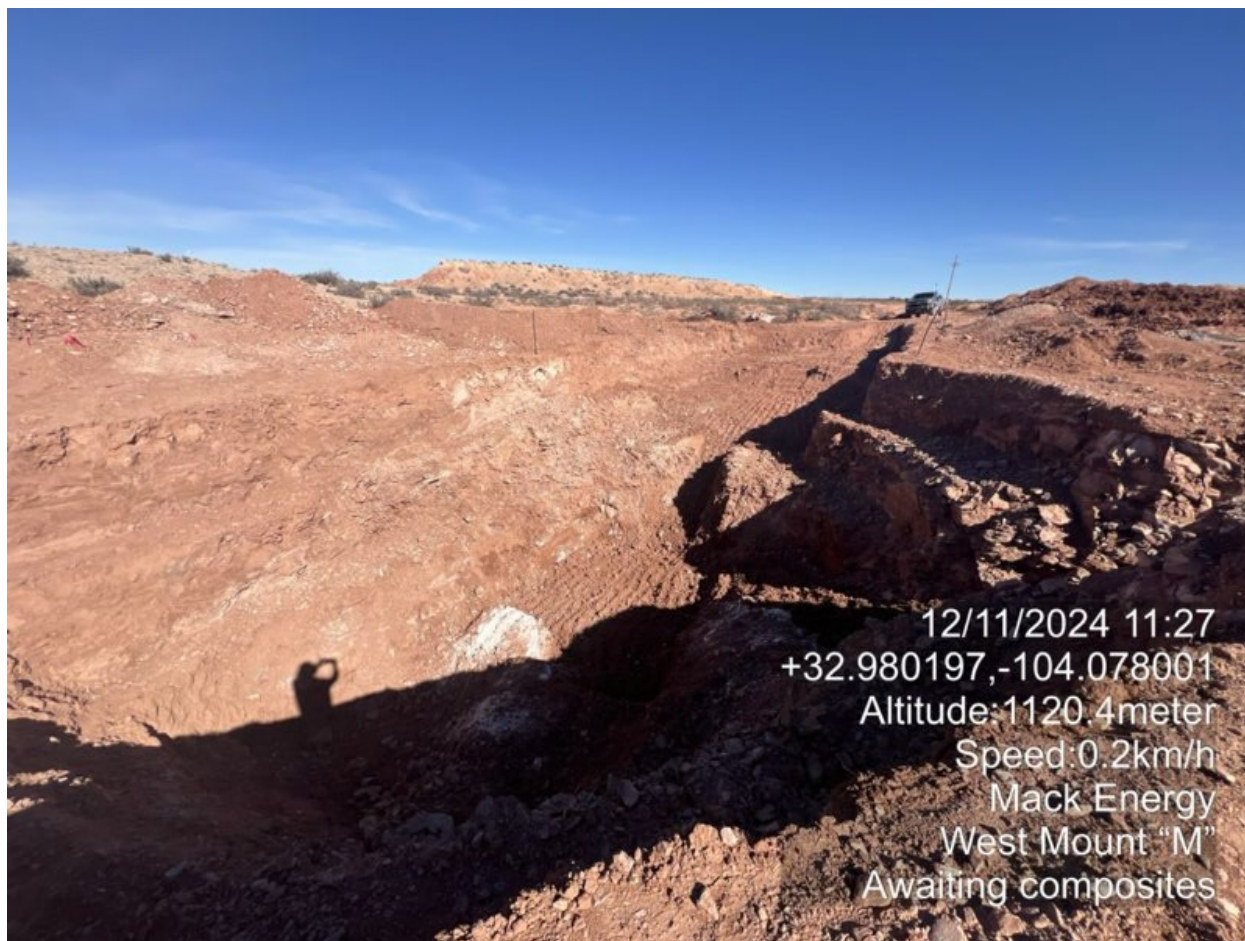


envirotech Inc.

**MACK ENERGY CORPORATION
WEST MOUNT SPILL M
REMEDIATION AND FINAL PHOTOS**















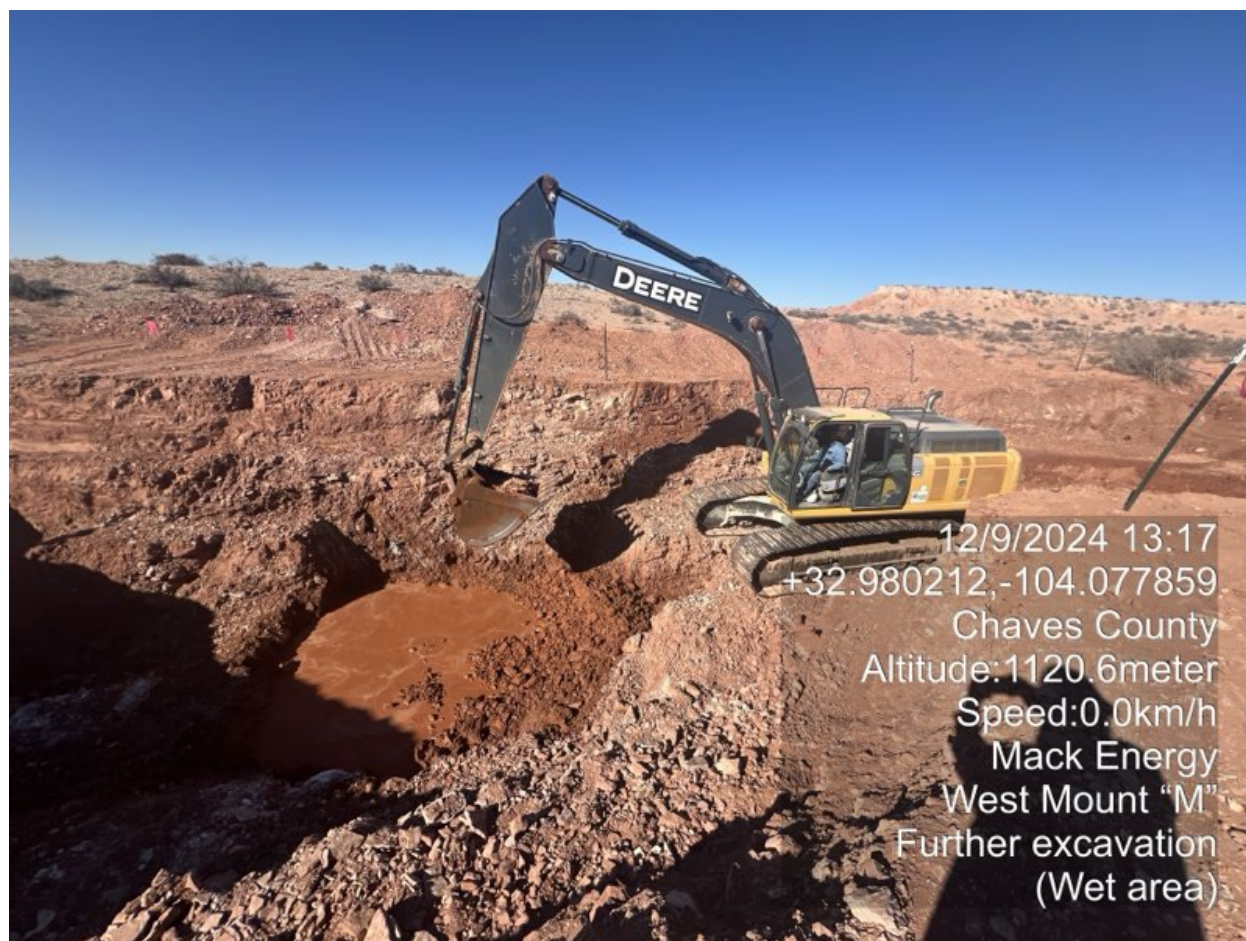


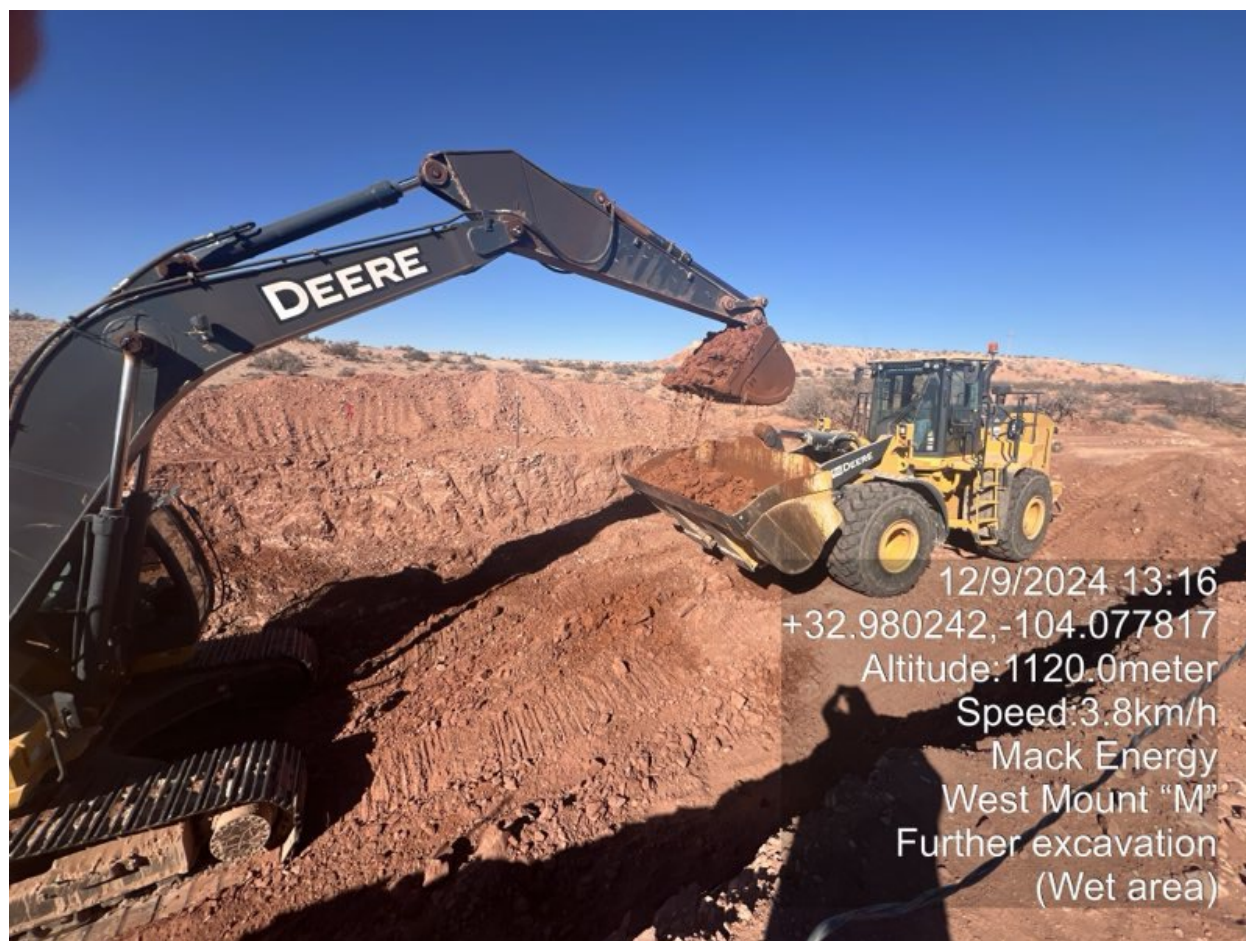


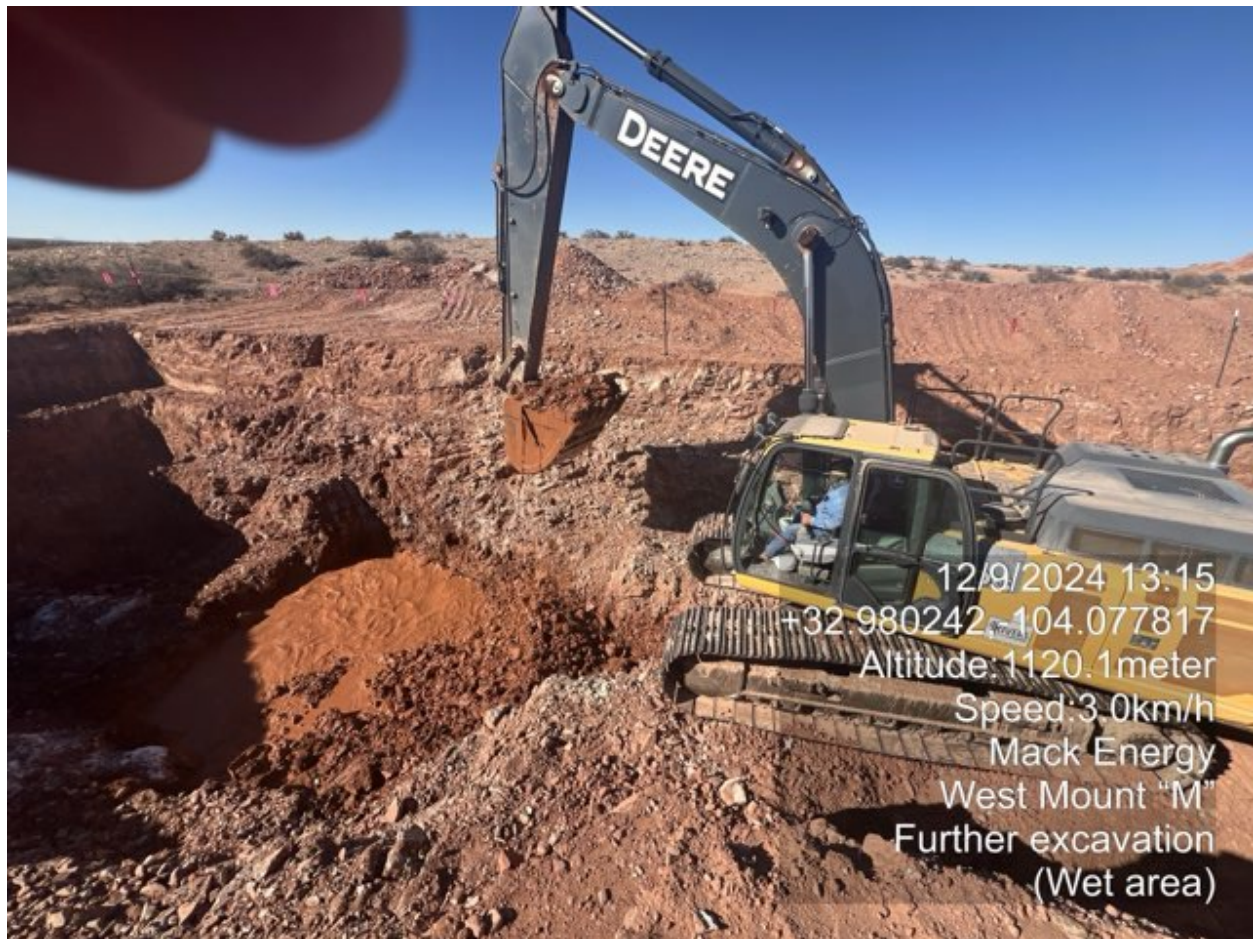




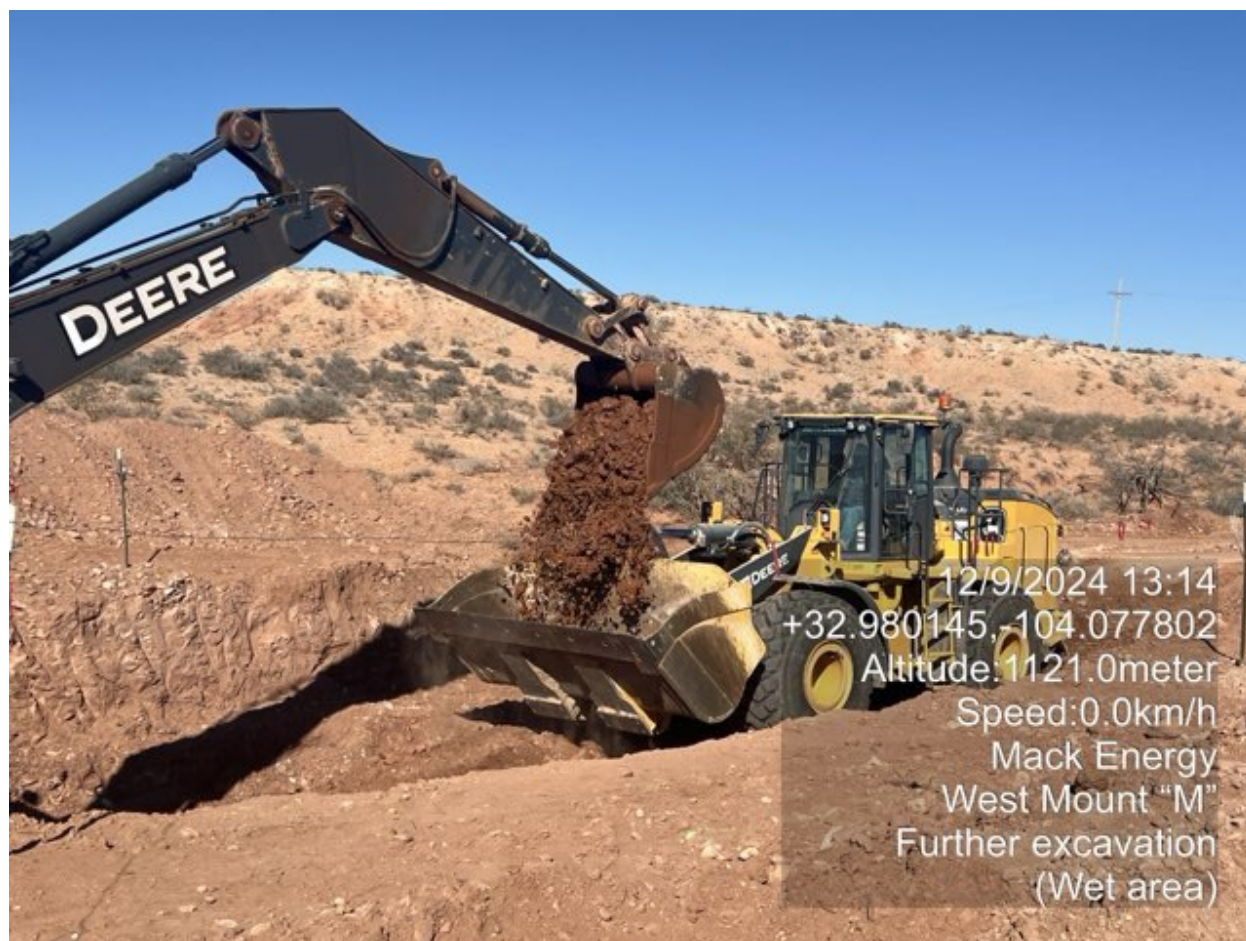


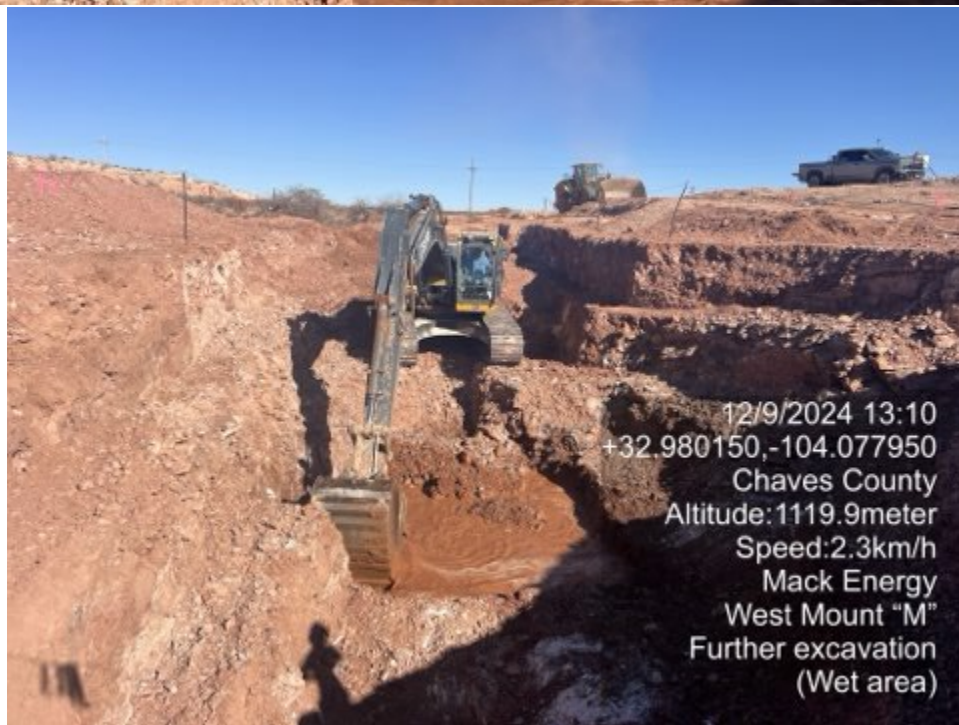


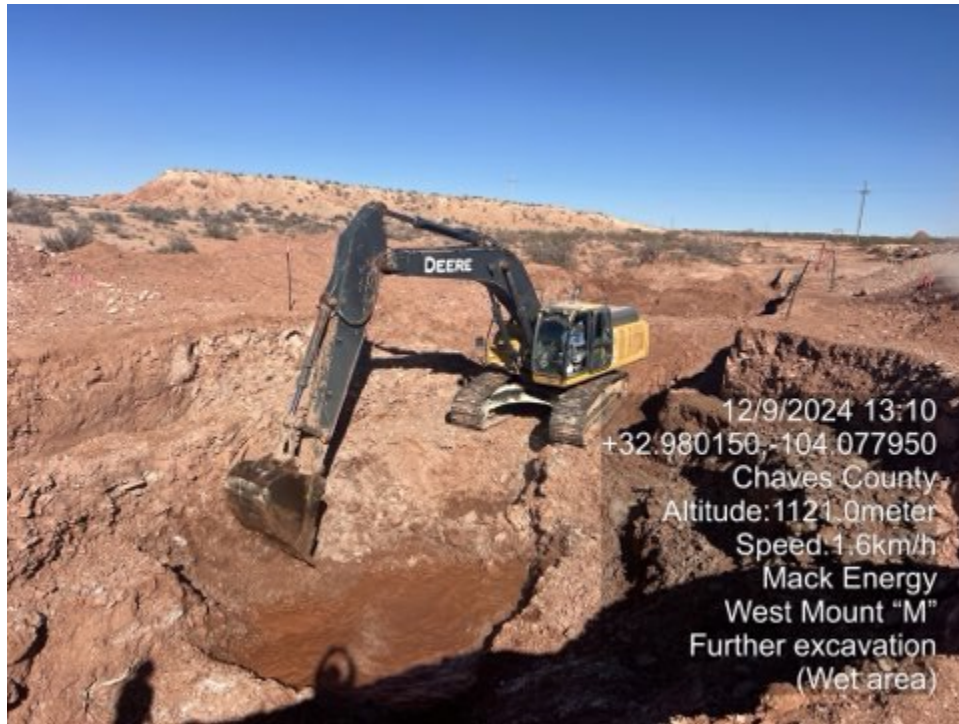




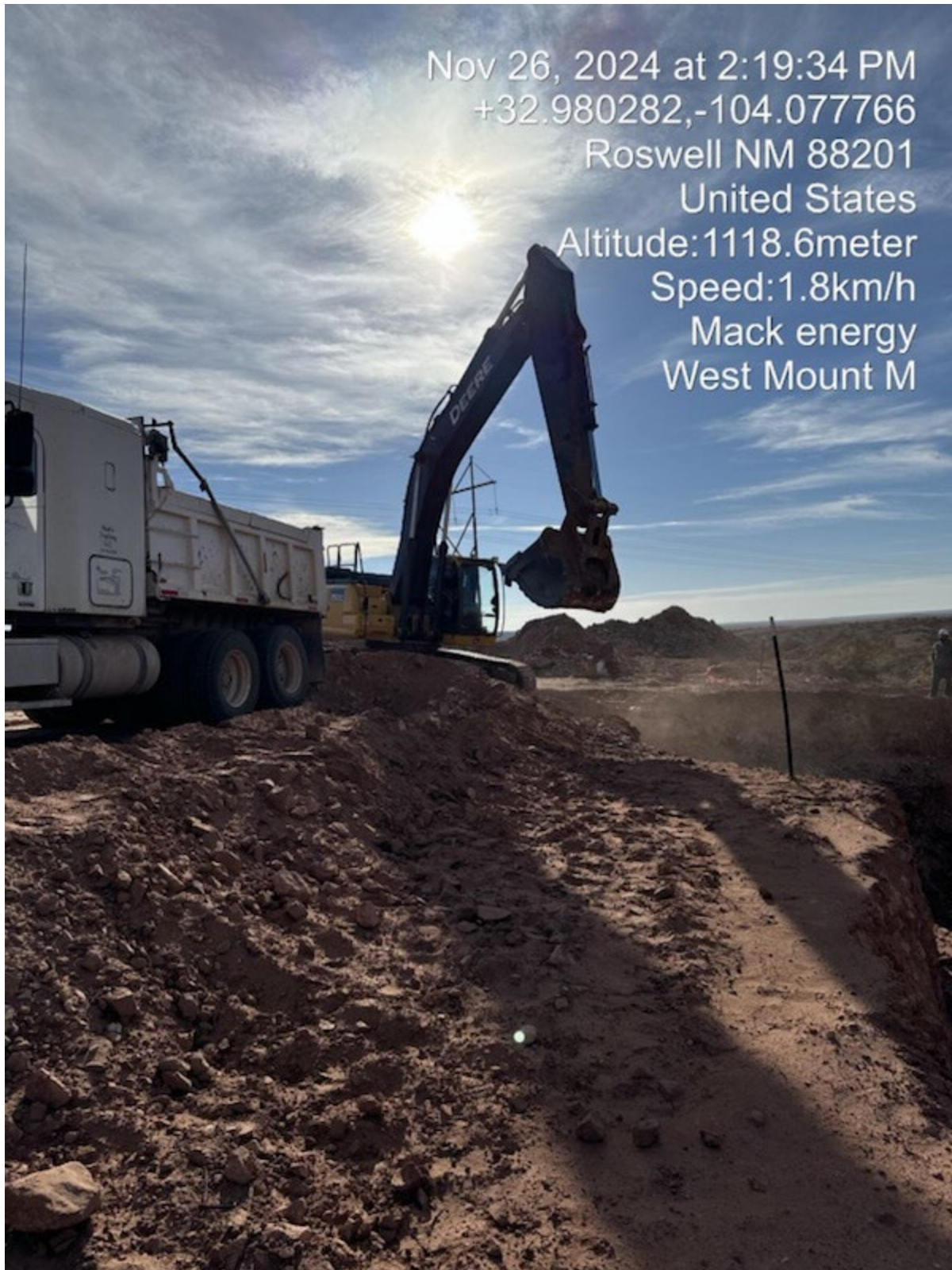


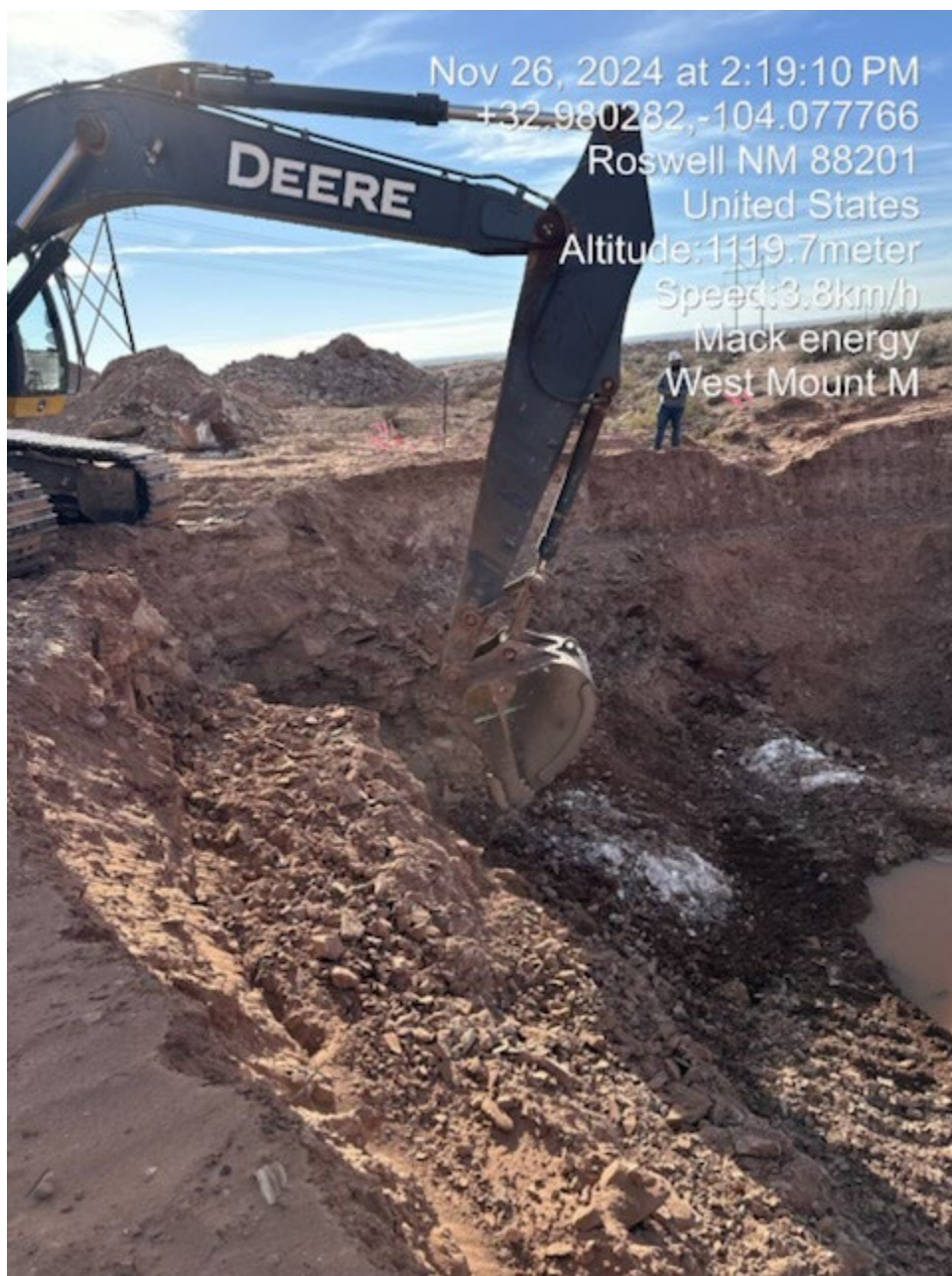




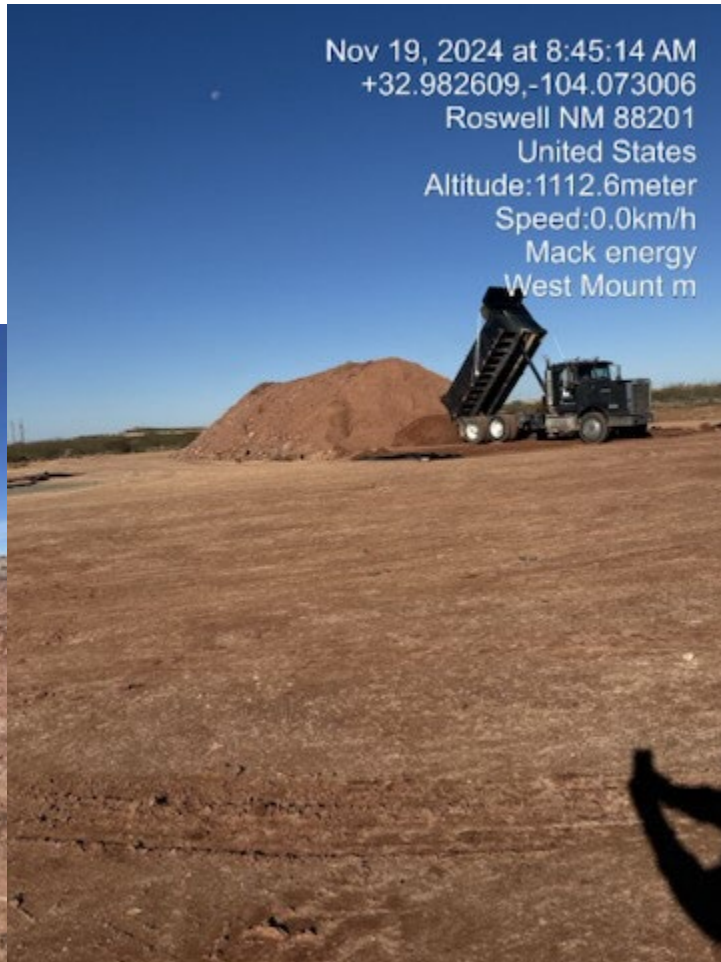








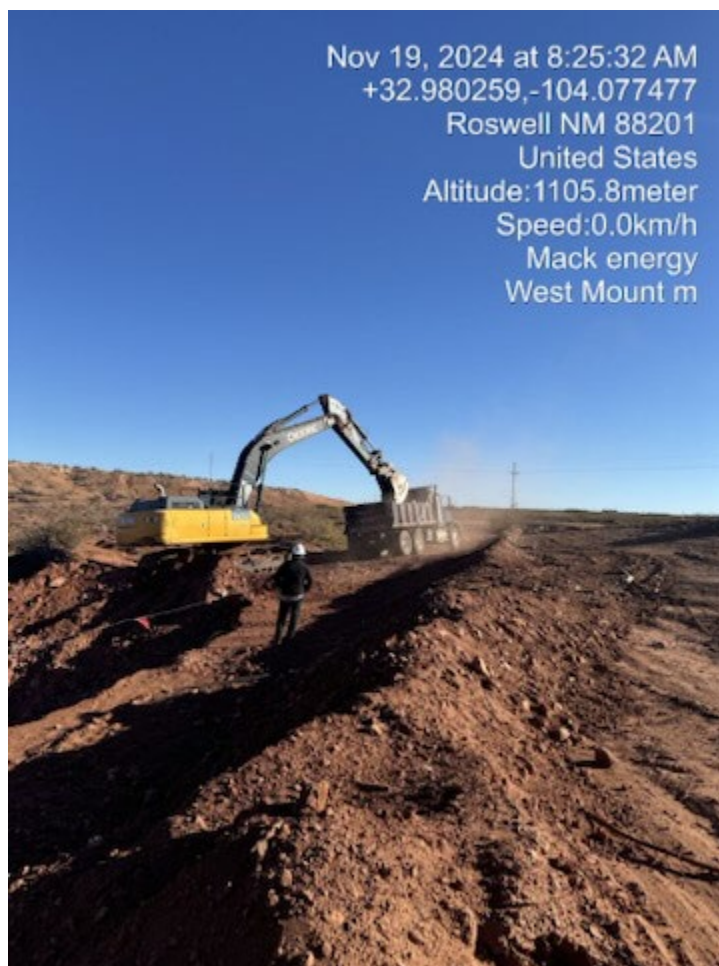


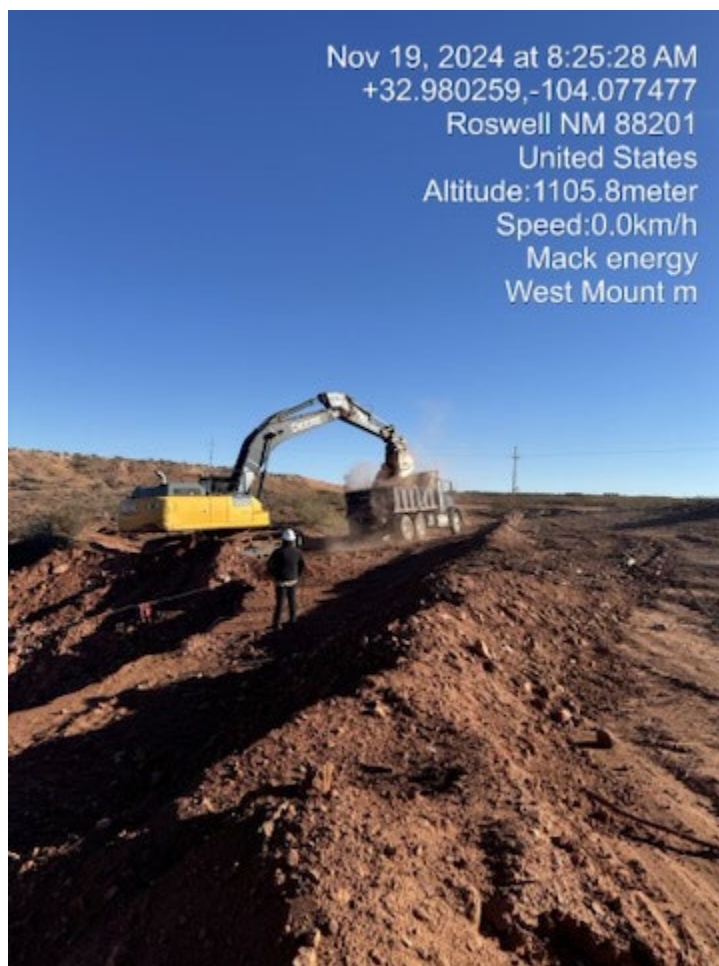


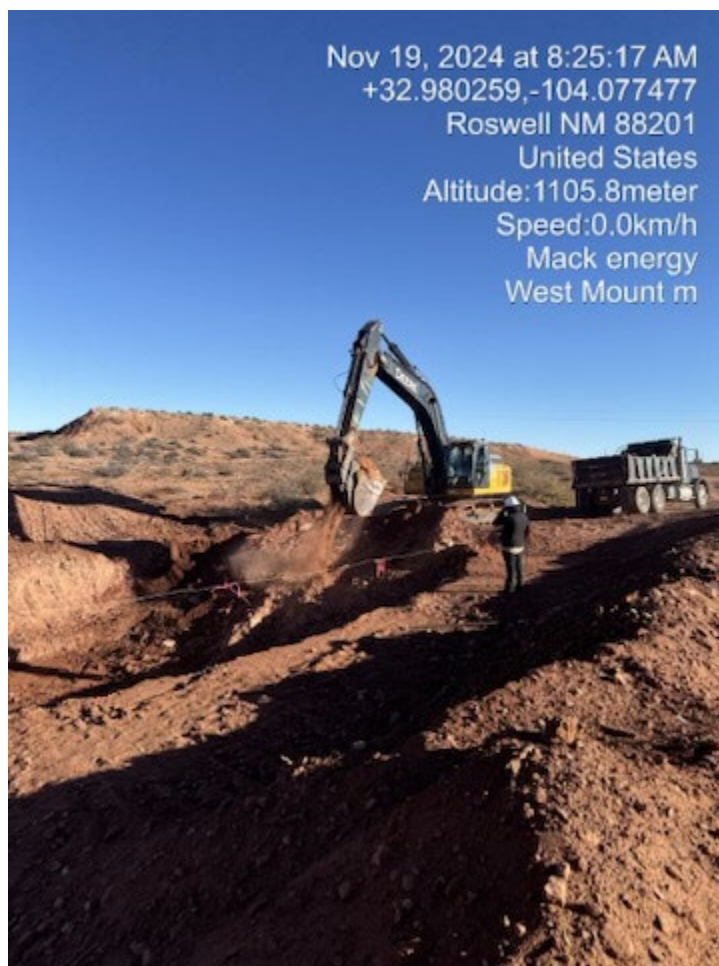










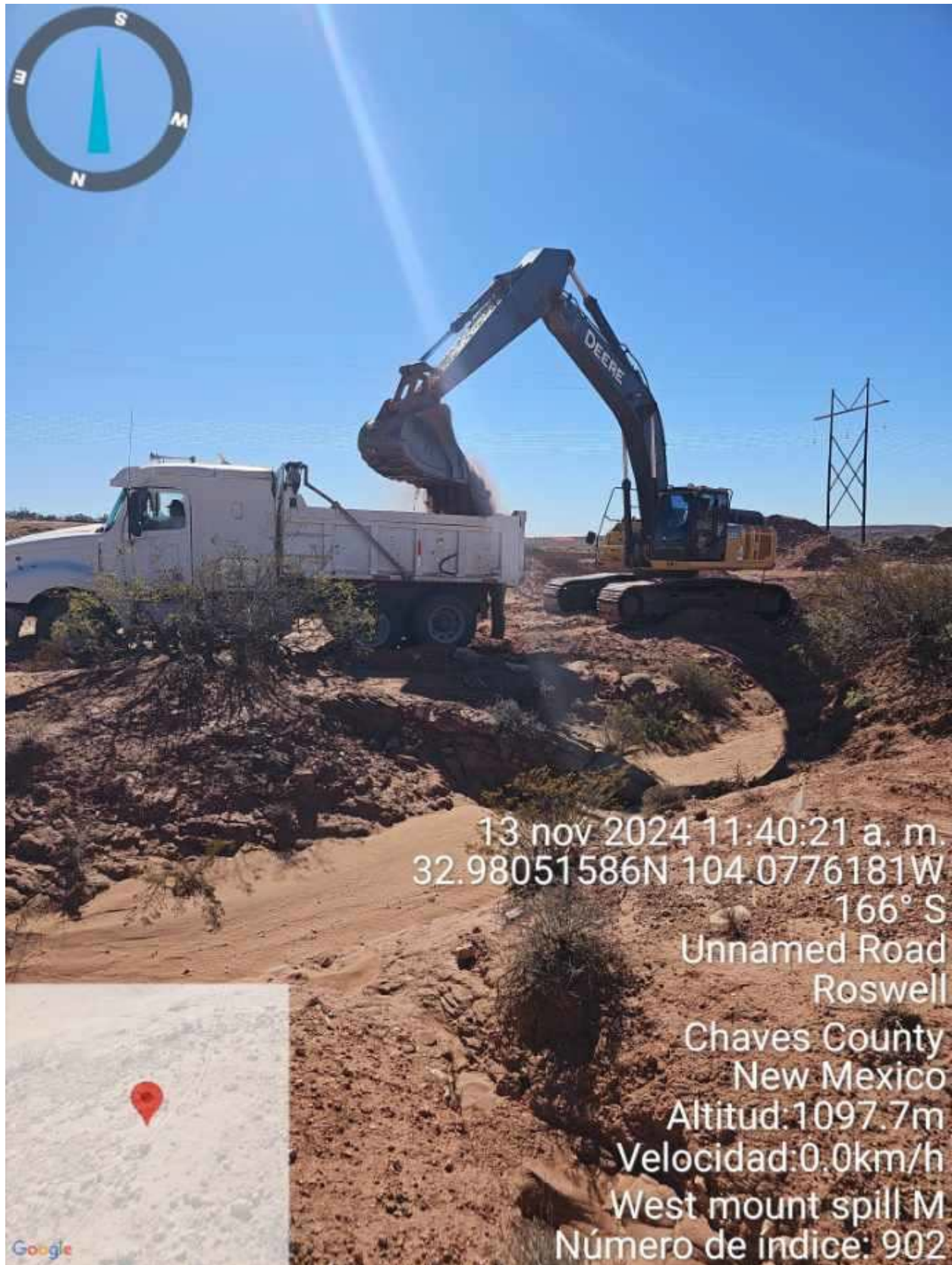




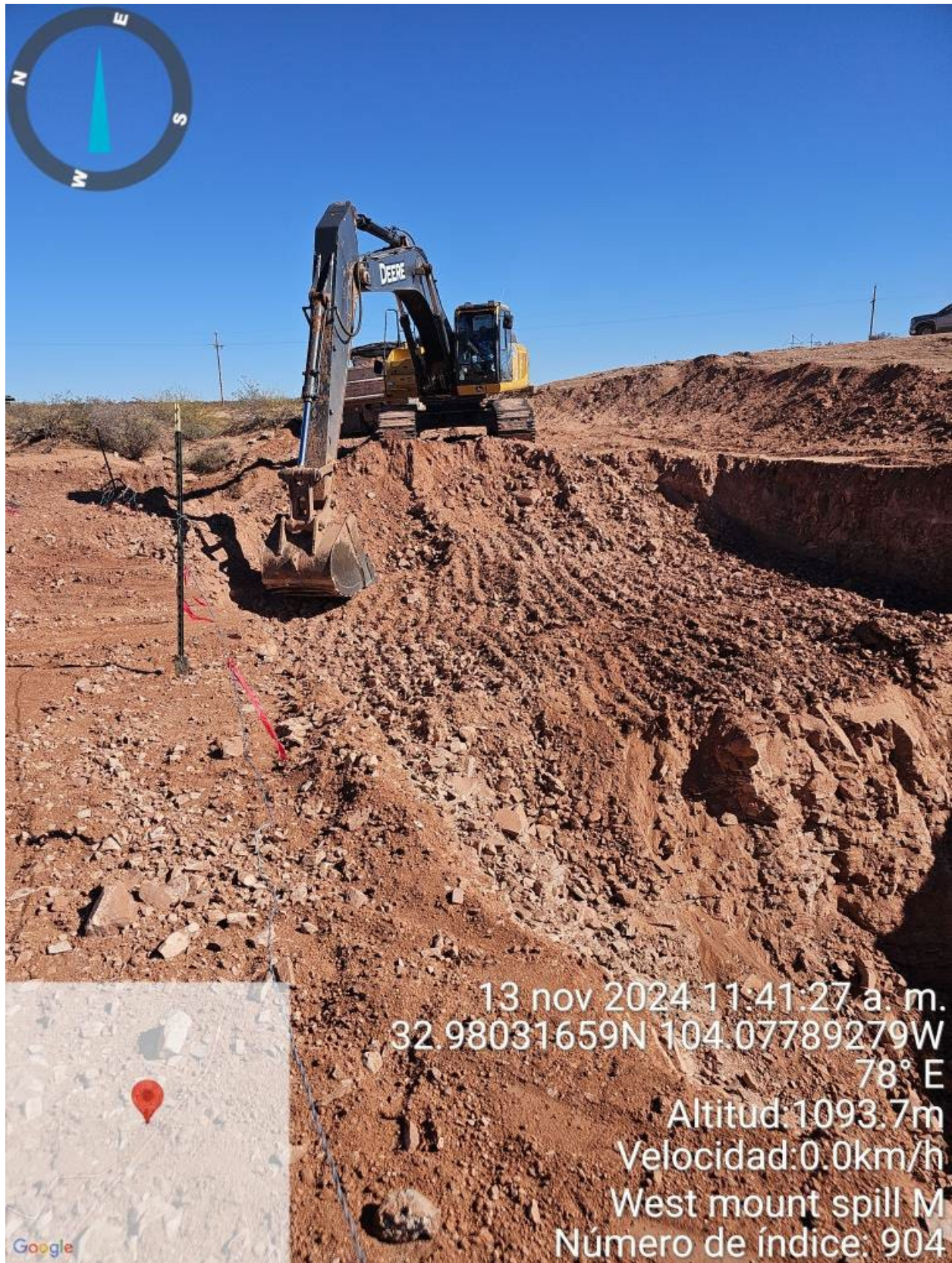


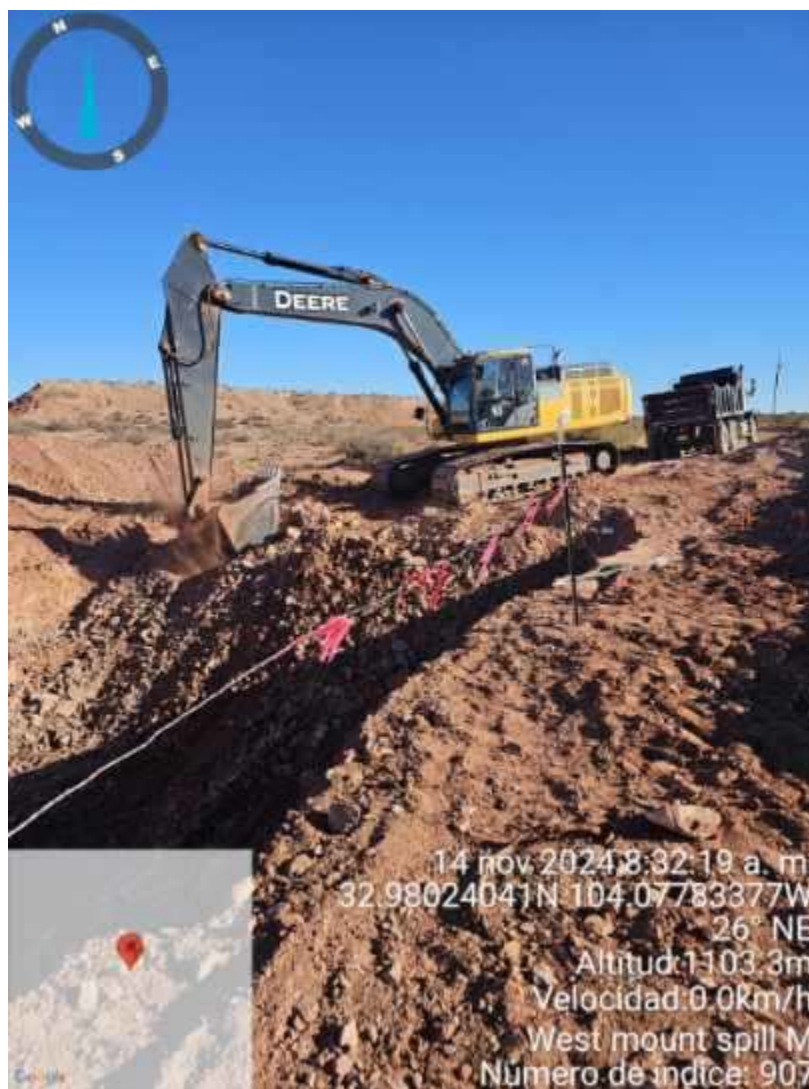


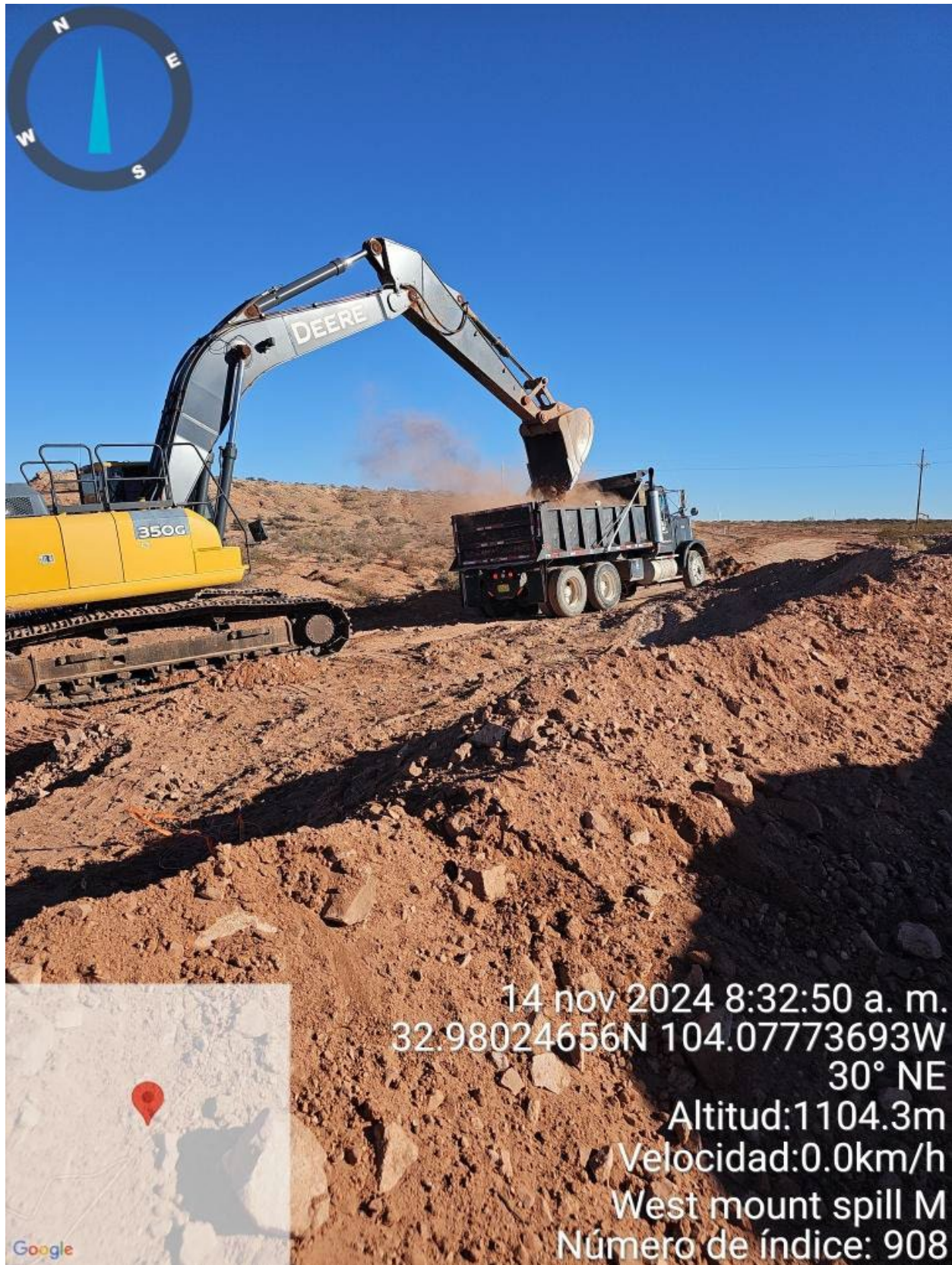




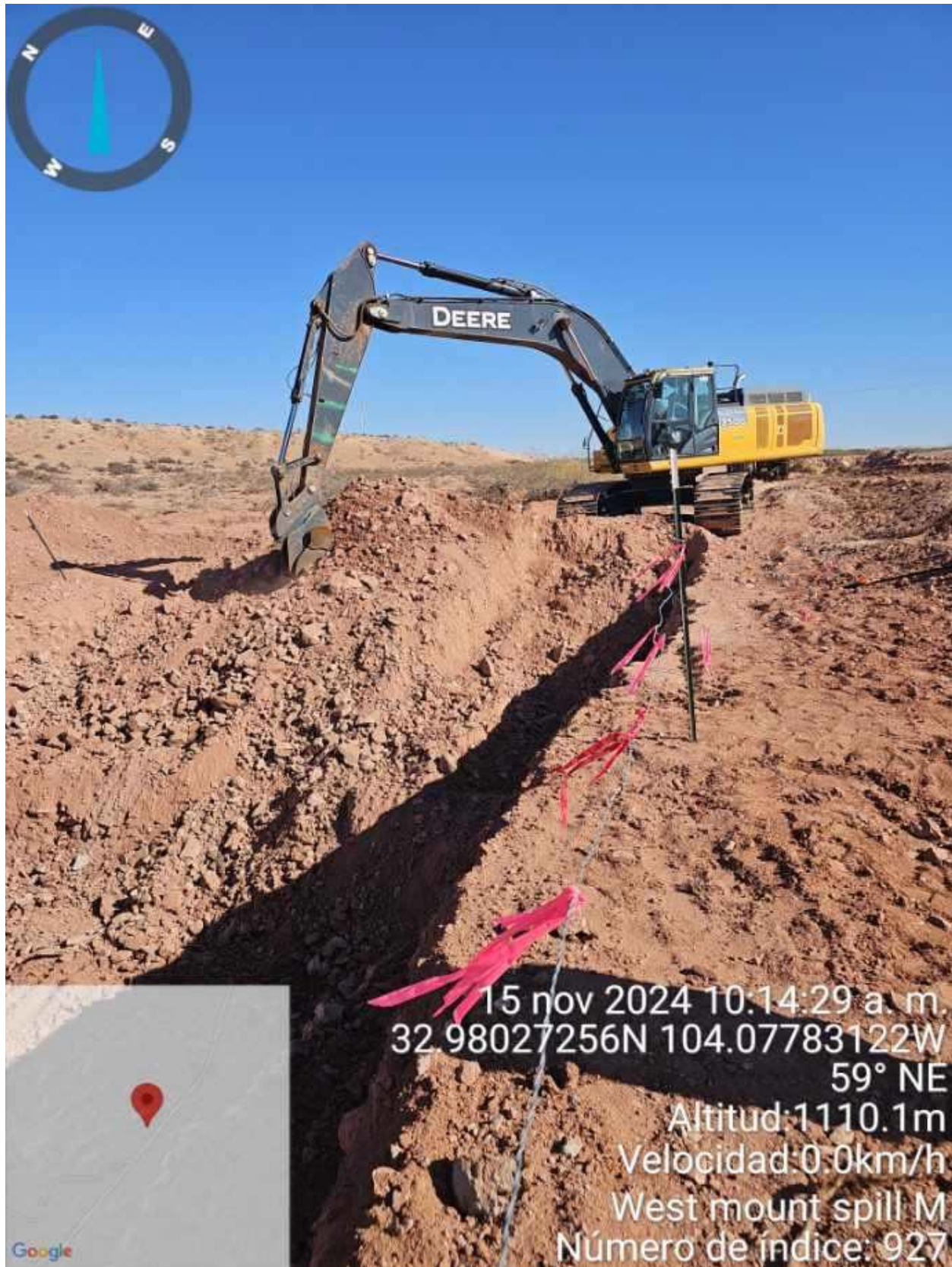


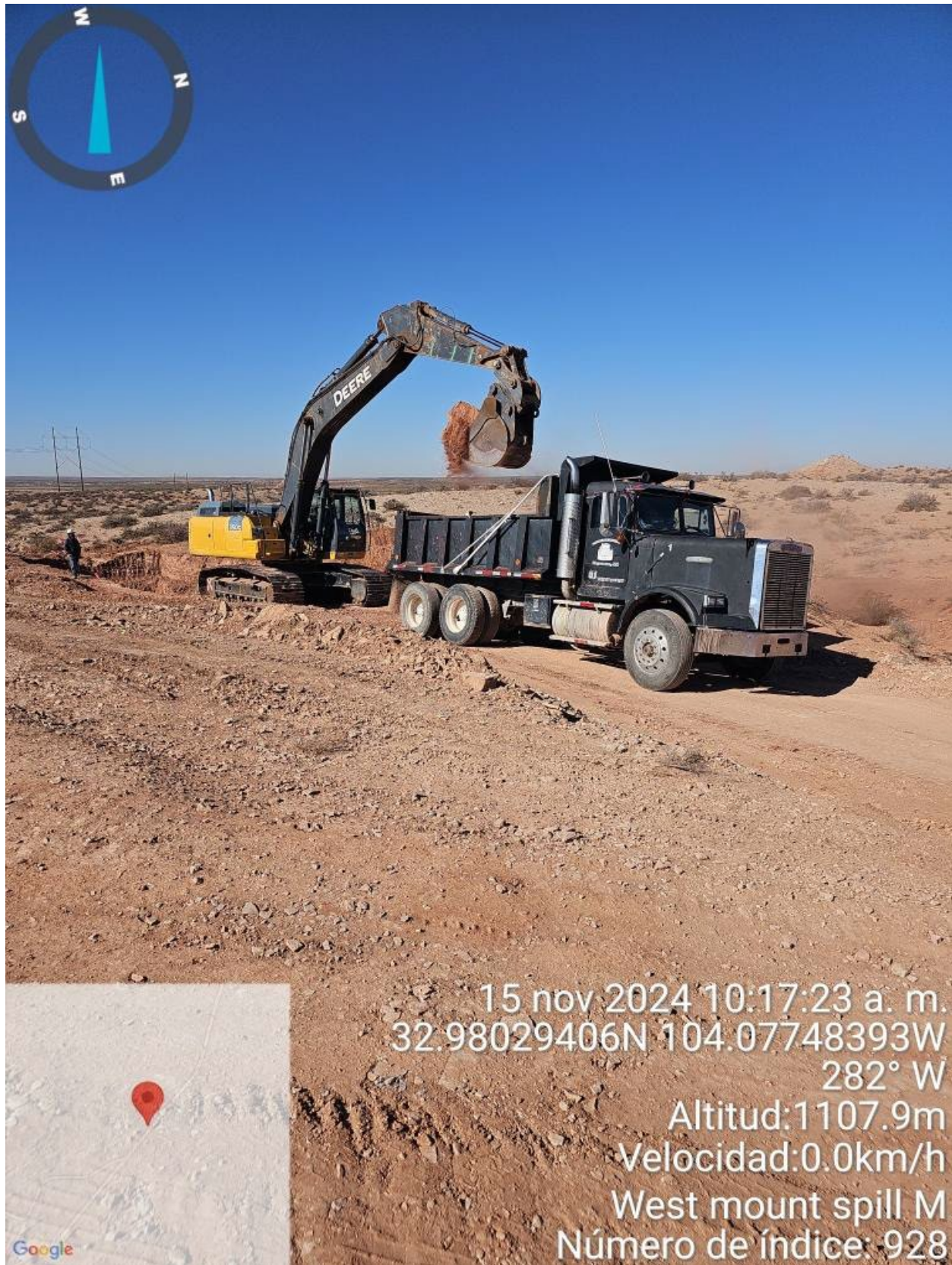


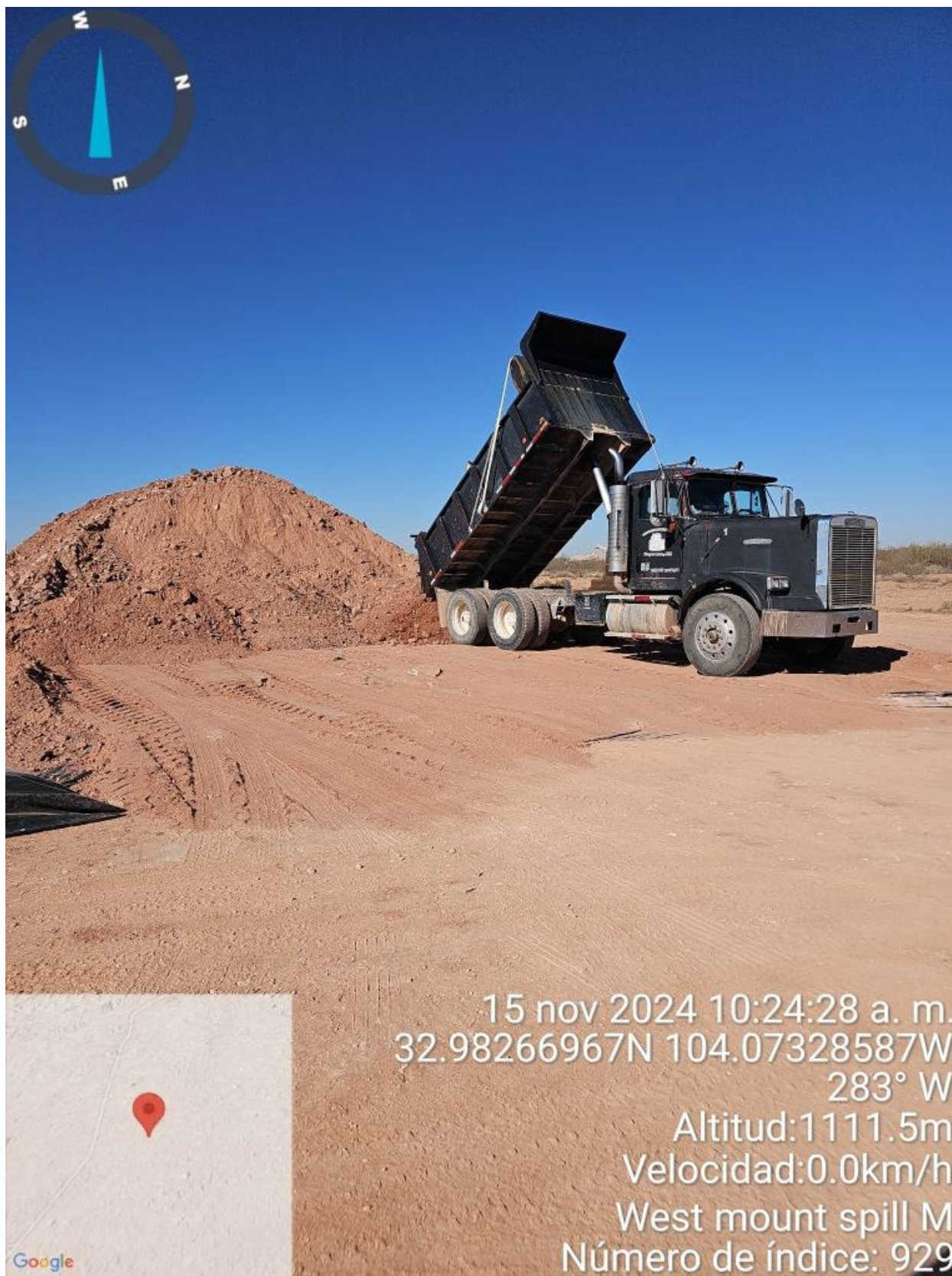


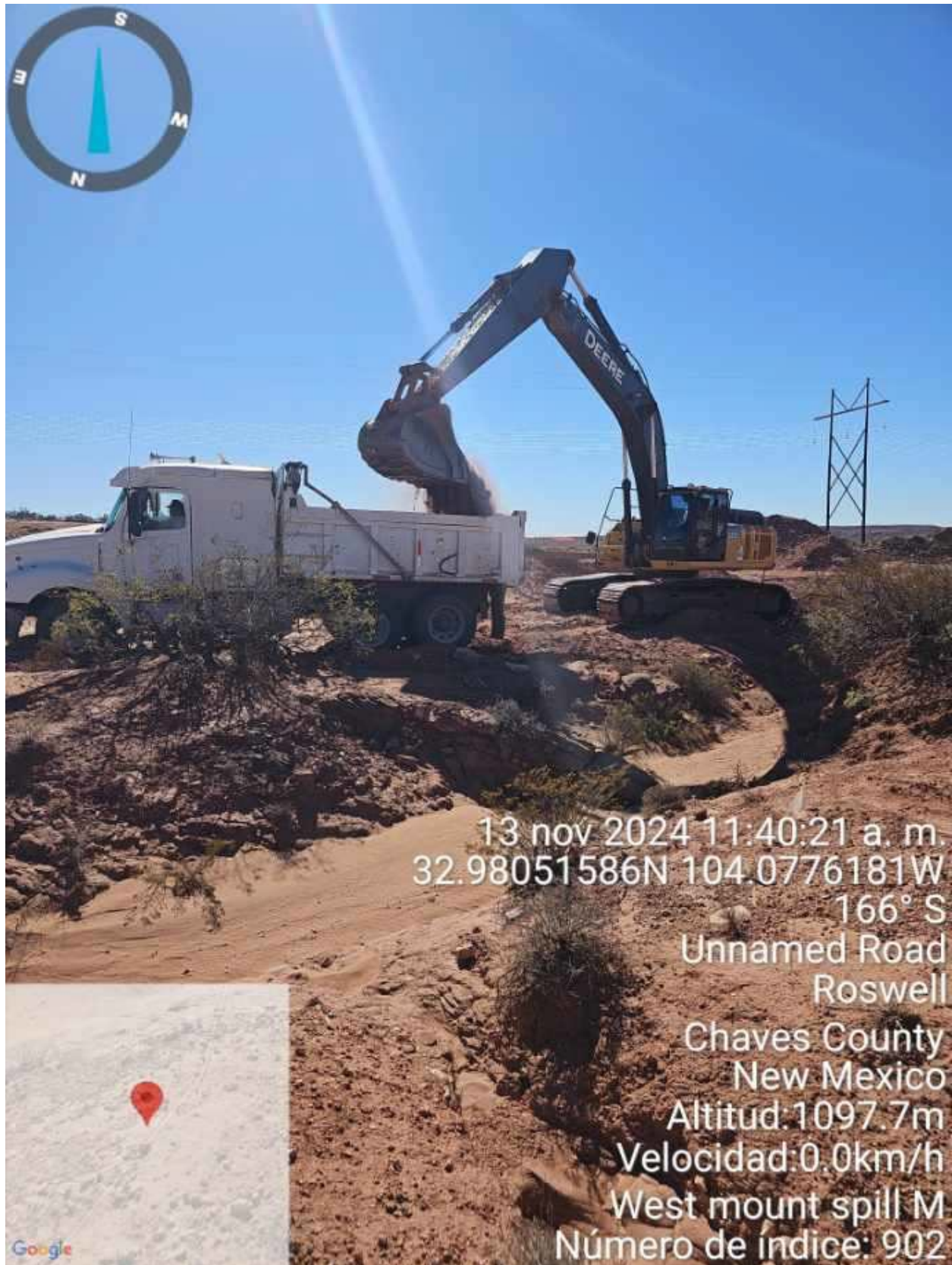




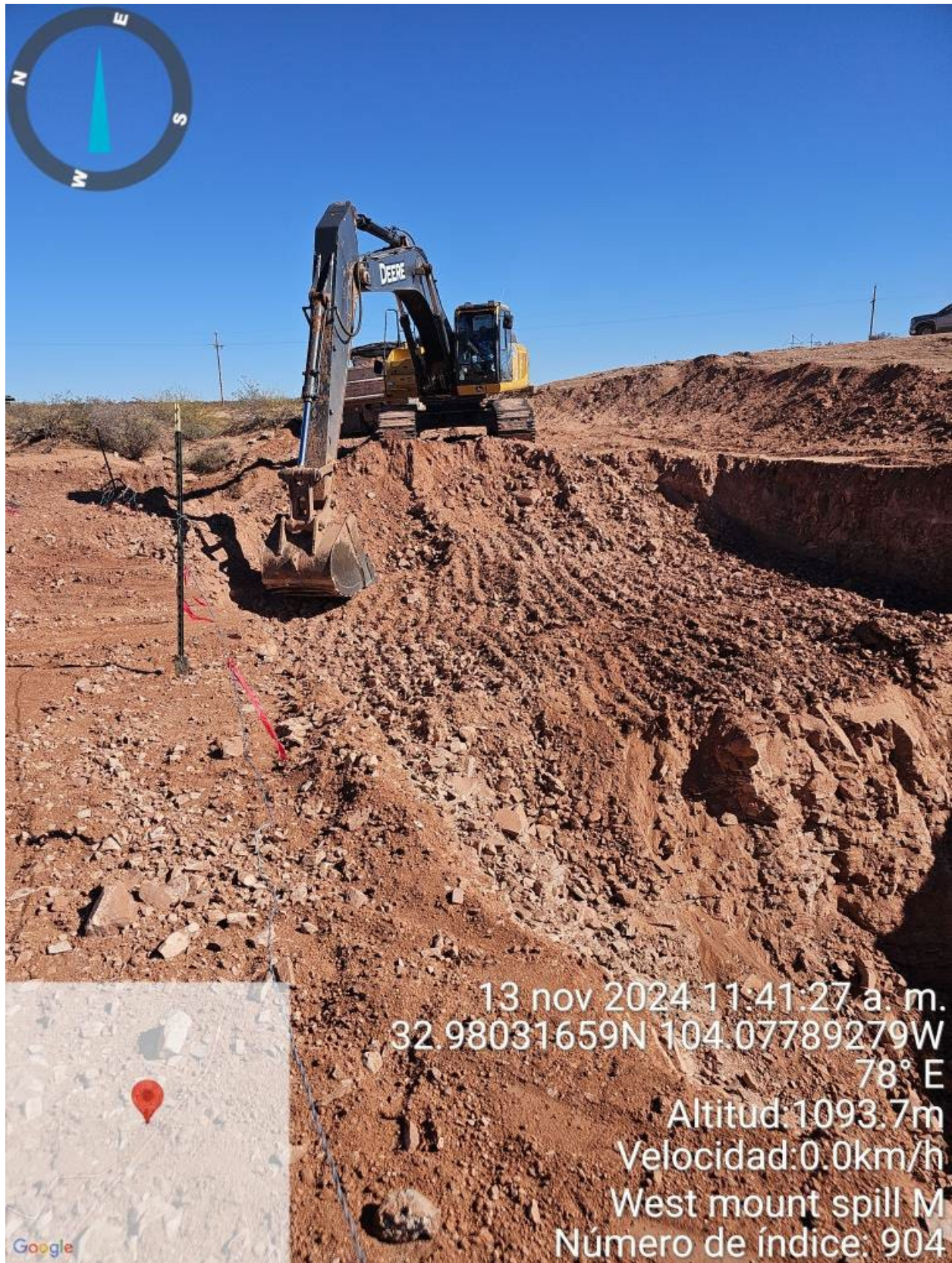


























Dec 16, 2024 11:12:44 AM
32.98038748N 104.07756872W
Chaves County
Mack Energy
West Mount (M)
Composites

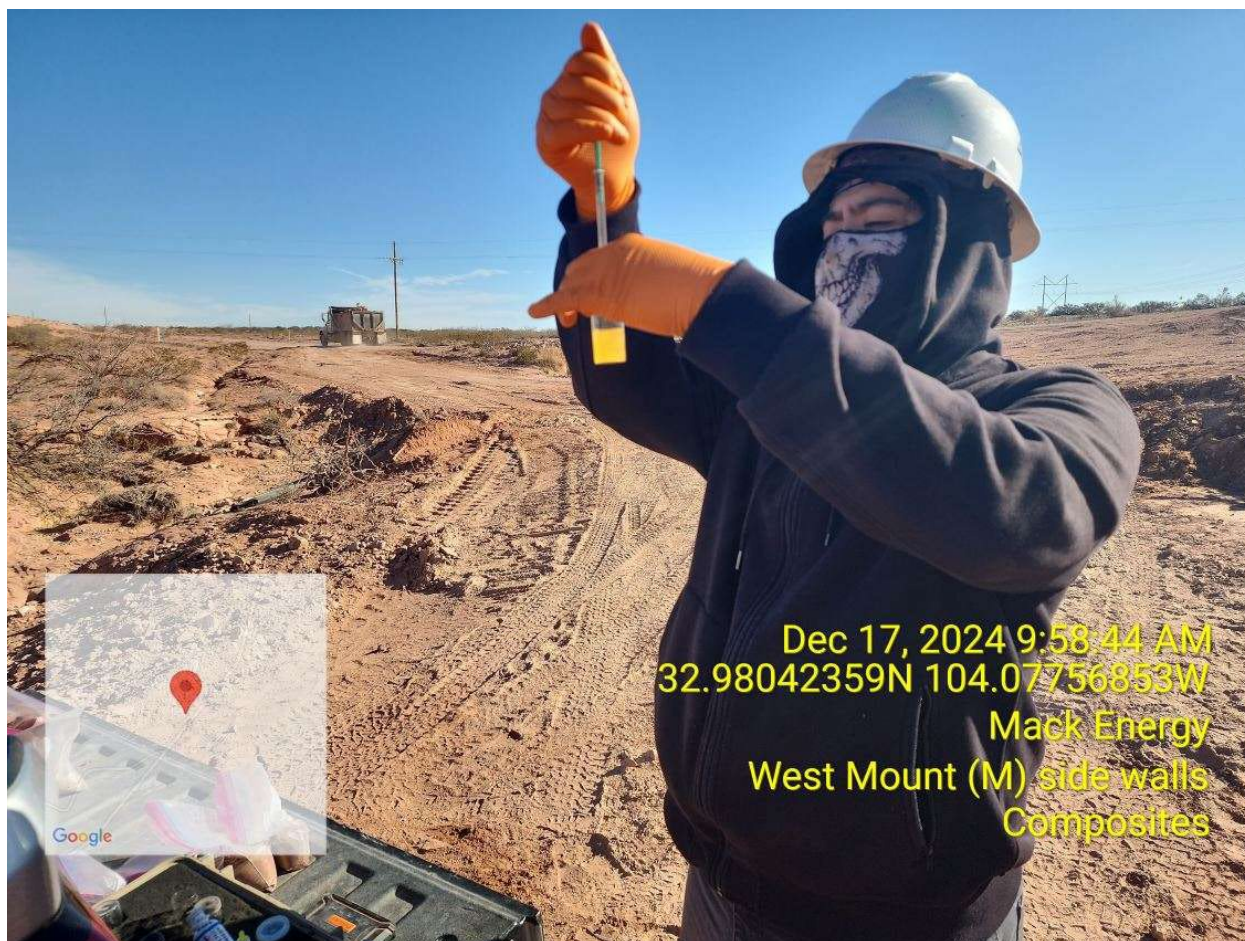








Dec 12, 2024 9:08:26 AM
32.98034238N 104.07779719W
Mack Energy
West Mount (M)









Friday, November 15, 2024

32.9840° N, 104.0761° W

Chaves County

Altitude:3707.5ft

Speed:1.3mph

MEC West Mount Site M stockpile

Index number:202



Thursday, November 14, 2024
32.9842° N, 104.0758° W
Chaves County
Altitude:3710.5ft
Speed:0.0mph
MEC West Mount Site M stockpile
Index number:195





**MACK ENERGY CORPORATION
WEST MOUNT SPILL M
RECLAMATION EXECUTIVE SUMMARY
INCIDENT NO. NAPP23299383319**

**API NO. 30-005-64381
UNIT LETTER P, SECTION 25, TOWNSHIP 15S, RANGE 28E
CHAVES COUNTY, NEW MEXICO**

Reclamation Executive Summary

Subject: Final Reclamation Summary-West Mount Spill M (Incident No. NAPP2329938319)

On January 7, 2025 ESS initiated and completed reclamation activities at the West Mount Spill M site following the finalization of remediation efforts for the release that occurred on September 20, 2023 (Incident Number: NAPP2329938319).

A total of 108 cubic yards of topsoil was loaded and hauled from Mack Energy's Bogel Pit. The topsoil was evenly spread across the entire 2,197 square-foot impacted area. The site was then ripped, contoured, and sloped to match the natural grade. Reseeding was conducted using the NMSLO Course Site .45 ac broadcast seed from Curtis and Curtis Seed, which covered the excavation area and disturbed area used for remediation and reclamation efforts consisting of 2197 square-foot in accordance with State Land Office (SLO) Rules and Regulations.

A five-point composite was taken from the center of the excavation/backfill area located at 32.980305 -104.077796. Please find the reclamation composite map and confirmed lab analysis attached herein.

Final reclamation photos have been included with the Closure Report, which has been uploaded and submitted through the NMOCD Portal. The seed tag associated with the seeding event is also attached for your records.

Should you have any questions or require additional information regarding the completed reclamation activities at the West Mount Spill M site for Mack Energy, please feel free to contact me at (575) 390-6397 or (575) 393-9048, or via email at natalie@energystaffingllc.com.

MACK ENERGY - WM M

BACKFILL COMP MAP

Legend

- ☐ BF COMP SAMPLE
-  Mack Energy
-  WEST MOUNT SPILL



BF COMP SAMPLE

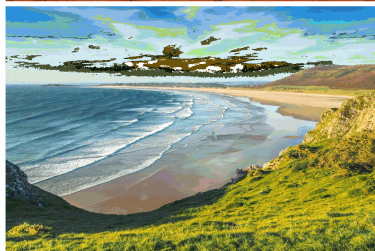
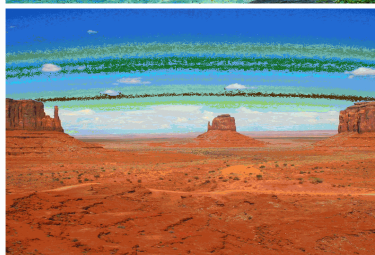
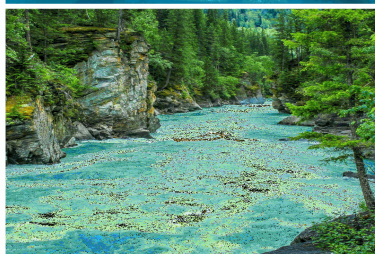
WEST MOUNT SPILL M

WE



30 ft

Report to:
Natalie Gladden



5796 U.S. Hwy 64
Farmington, NM 87401

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



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Mack Energy

Project Name: West Mount Spill M

Work Order: E508023

Job Number: 20046-0001

Received: 8/5/2025

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/6/25

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: 8/6/25

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210



Project Name: West Mount Spill M
Workorder: E508023
Date Received: 8/5/2025 6:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/5/2025 6:00:00AM, under the Project Name: West Mount Spill M.

The analytical test results summarized in this report with the Project Name: West Mount Spill M 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

Field Offices:

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mgonzales@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
BACKFILL COMP 1- SURF	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

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	08/06/25 14:24

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BACKFILL COMP 1- SURF	E508023-01A	Soil	07/31/25	08/05/25	Glass Jar, 2 oz.



Sample Data

Mack Energy
7 W. Compress Road
Artesia NM, 88210

Project Name: West Mount Spill M
Project Number: 20046-0001
Project Manager: Natalie Gladden

Reported:
8/6/2025 2:24:01PM

BACKFILL COMP 1- SURF

E508023-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2532030	
Benzene	ND	0.0250	1	08/05/25	08/05/25	
Ethylbenzene	ND	0.0250	1	08/05/25	08/05/25	
Toluene	ND	0.0250	1	08/05/25	08/05/25	
o-Xylene	ND	0.0250	1	08/05/25	08/05/25	
p,m-Xylene	ND	0.0500	1	08/05/25	08/05/25	
Total Xylenes	ND	0.0250	1	08/05/25	08/05/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.3 %	70-130		08/05/25	08/05/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2532030	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/05/25	08/05/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.2 %	70-130		08/05/25	08/05/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2532026	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/05/25	08/06/25	
Oil Range Organics (C28-C36)	ND	50.0	1	08/05/25	08/06/25	
<i>Surrogate: n-Nonane</i>						
	97.0 %	61-141		08/05/25	08/06/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2532028	
Chloride	ND	20.0	1	08/05/25	08/05/25	



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/6/2025 2:24:01PM

Volatile Organics by EPA 8021B

Analyst: BA

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 (2532030-BLK1)

Prepared: 08/05/25 Analyzed: 08/05/25

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	7.25		8.00		90.6	70-130			

LCS (2532030-BS1)

Prepared: 08/05/25 Analyzed: 08/05/25

Benzene	5.22	0.0250	5.00		104	70-130			
Ethylbenzene	5.12	0.0250	5.00		102	70-130			
Toluene	5.19	0.0250	5.00		104	70-130			
o-Xylene	5.15	0.0250	5.00		103	70-130			
p,m-Xylene	10.3	0.0500	10.0		103	70-130			
Total Xylenes	15.5	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.24		8.00		90.6	70-130			

Matrix Spike (2532030-MS1)

Source: E508006-05

Prepared: 08/05/25 Analyzed: 08/05/25

Benzene	5.51	0.0250	5.00	ND	110	70-130			
Ethylbenzene	5.42	0.0250	5.00	ND	108	70-130			
Toluene	5.51	0.0250	5.00	0.0283	110	70-130			
o-Xylene	5.46	0.0250	5.00	ND	109	70-130			
p,m-Xylene	10.9	0.0500	10.0	ND	109	70-130			
Total Xylenes	16.4	0.0250	15.0	ND	109	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.50		8.00		93.7	70-130			

Matrix Spike Dup (2532030-MSD1)

Source: E508006-05

Prepared: 08/05/25 Analyzed: 08/05/25

Benzene	5.19	0.0250	5.00	ND	104	70-130	6.12	27	
Ethylbenzene	5.11	0.0250	5.00	ND	102	70-130	5.93	26	
Toluene	5.17	0.0250	5.00	0.0283	103	70-130	6.46	20	
o-Xylene	5.17	0.0250	5.00	ND	103	70-130	5.42	25	
p,m-Xylene	10.3	0.0500	10.0	ND	103	70-130	5.81	23	
Total Xylenes	15.5	0.0250	15.0	ND	103	70-130	5.68	26	
Surrogate: 4-Bromochlorobenzene-PID	7.60		8.00		95.1	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/6/2025 2:24:01PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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 (2532030-BLK1) Prepared: 08/05/25 Analyzed: 08/05/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.2	70-130			

LCS (2532030-BS2) Prepared: 08/05/25 Analyzed: 08/05/25

Gasoline Range Organics (C6-C10)	52.9	20.0	50.0		106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.45		8.00		93.2	70-130			

Matrix Spike (2532030-MS2) Source: E508006-05 Prepared: 08/05/25 Analyzed: 08/05/25

Gasoline Range Organics (C6-C10)	54.4	20.0	50.0	ND	109	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		8.00		94.4	70-130			

Matrix Spike Dup (2532030-MSD2) Source: E508006-05 Prepared: 08/05/25 Analyzed: 08/05/25

Gasoline Range Organics (C6-C10)	51.9	20.0	50.0	ND	104	70-130	4.78	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.23		8.00		90.4	70-130			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/6/2025 2:24:01PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2532026-BLK1)					Prepared: 08/05/25 Analyzed: 08/05/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.6		50.0		97.2	61-141			

LCS (2532026-BS1)					Prepared: 08/05/25 Analyzed: 08/05/25				
Diesel Range Organics (C10-C28)	265	25.0	250		106	66-144			
Surrogate: n-Nonane	47.7		50.0		95.4	61-141			

Matrix Spike (2532026-MS1)					Source: E508020-21		Prepared: 08/05/25 Analyzed: 08/05/25		
Diesel Range Organics (C10-C28)	356	25.0	250	40.9	126	56-156			
Surrogate: n-Nonane	49.9		50.0		99.9	61-141			

Matrix Spike Dup (2532026-MSD1)					Source: E508020-21		Prepared: 08/05/25 Analyzed: 08/05/25		
Diesel Range Organics (C10-C28)	351	25.0	250	40.9	124	56-156	1.37	20	
Surrogate: n-Nonane	50.0		50.0		99.9	61-141			



QC Summary Data

Mack Energy	Project Name:	West Mount Spill M	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/6/2025 2:24:01PM

Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2532028-BLK1)					Prepared: 08/05/25 Analyzed: 08/05/25				
Chloride	ND	20.0							
LCS (2532028-BS1)					Prepared: 08/05/25 Analyzed: 08/05/25				
Chloride	257	20.0	250		103	90-110			
Matrix Spike (2532028-MS1)					Source: E508020-22		Prepared: 08/05/25 Analyzed: 08/05/25		
Chloride	1490	20.0	250	953	213	80-120			M4
Matrix Spike Dup (2532028-MSD1)					Source: E508020-22		Prepared: 08/05/25 Analyzed: 08/05/25		
Chloride	1330	20.0	250	953	151	80-120	11.0	20	M4

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

Mack Energy	Project Name:	West Mount Spill M	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	08/06/25 14:24

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. 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
- DNR Did not react with the addition of acid or base.

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

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



Page 11 of 12

Envirotech Analytical Laboratory

Printed: 8/5/2025 12:16:10PM

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:	Mack Energy	Date Received:	08/05/25 06:00	Work Order ID:	E508023
Phone:	(575) 390-6397	Date Logged In:	08/04/25 15:36	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	08/06/25 07:00 (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? No
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: CourierComments/Resolution

Project manager not provided on COC.
Missing client relinquished time on signature line.

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? Yes

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

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

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.



Friday, January 3, 2025
32.9803° N, 104.0776° W
Chaves County
Altitude:3681.0ft
Speed:0.0mph
MEC West Mount Site M Backfilling
Index number:332



Tuesday, January 7, 2025
32.9804° N, 104.0775° W
Chaves County
Altitude: 3681.5ft
Speed: 2.8mph
Index number: 347



Tuesday, January 7, 2025
32.9804° N, 104.0773° W
Chaves County
Altitude:3681.5ft
Speed:1.5mph
MEC West Mount Site M topsoil Finished
Index number:354



Mack Energy
NMSLO Coarse Site- .45 Ac Broadcasted
Lot #: 68136
 22.05

Item	% Pure Mix	Origin	Purity	Germ	Dormant	Total Germ:	Test Date
Sand Bluestem, Goldstriker	9.17%	Nebraska	70.23%	83.00%	6.00%	89.00%	8/2024
Sideoats Grama, Niner	8.41%	Texas	71.10%	16.00%	81.00%	97.00%	12/2024
Little Bluestem, Aldous	8.80%	Kansas	61.69%	59.00%	31.00%	90.00%	11/2024
Blue Grama, Alma	6.44%	Texas	31.75%	94.00%	1.00%	95.00%	10/2024
Four-wing Saltbush, Variety Not Stated	6.19%	New Mexico	91.52%	0.00%	0.00%	99.00%	11/2024
Skunkbush Sumac, Variety Not Stated	5.24%	Utah	98.79%	0.00%	0.00%	78.00%	8/2024
Plains Bristlegrass, Variety Not Stated	4.89%	Oklahoma	99.28%	38.00%	25.00%	63.00%	11/2024
Munro Globemallow, Variety Not Stated	4.48%	Nevada	94.38%	14.00%	77.00%	91.00%	11/2024
Winter Fat, Variety Not Stated	4.44%	New Mexico	88.97%	90.00%	2.00%	92.00%	8/2024
Palmer Penstemon, Variety Not Stated	4.34%	Utah	98.86%	15.00%	79.00%	94.00%	7/2024
Sand Dropseed, Variety Not Stated	4.21%	Oklahoma	95.21%	92.00%	5.00%	97.00%	10/2024
Buckwheat, Variety Not Stated	2.10%	Washington	99.92%	97.00%	0.00%	97.00%	7/2024
White Prairie Clover, Variety Not Stated	2.08%	Iowa	99.96%	6.00%	92.00%	98.00%	6/2024
Seed Total	68.79%						

Inert Matter:

31.13%

Other Crop:

0.08%

curtisseed.com

4500 North Prince, Clovis, NM 88101

NMSLO Coarse Site- .45 AC Broadcasted,
 Bag into 1) 0.45 acre broadcasted bag @
 20.05 bulk pounds.

(575) 762-4759

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 621212

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2329938319
Incident Name	NAPP2329938319 WEST MOUNT SPILL M @ P-25-15S-28E
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	WEST MOUNT SPILL M
Date Release Discovered	09/22/2023
Surface Owner	Federal

Incident Details	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Human Error Flow Line - Production Produced Water Released: 4 BBL Recovered: 0 BBL Lost: 4 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 621212

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 09/03/2026
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QUESTIONS, Page 3

Action 621212

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 100 (ft.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Zero feet, overlying, or within area
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	7900
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	10/28/2024
On what date will (or did) the final sampling or liner inspection occur	12/12/2024
On what date will (or was) the remediation complete(d)	01/07/2025
What is the estimated surface area (in square feet) that will be reclaimed	2197
What is the estimated volume (in cubic yards) that will be reclaimed	1752
What is the estimated surface area (in square feet) that will be remediated	2197
What is the estimated volume (in cubic yards) that will be remediated	1864
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 4

Action 621212

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fEEM0112338393 GANDY MARLEY LANDFARM/LANDFILL
OR which OCD approved well (API) will be used for off-site disposal	<i>Not answered.</i>
OR is the off-site disposal site, to be used, out-of-state	<i>Not answered.</i>
OR is the off-site disposal site, to be used, an NMED facility	<i>Not answered.</i>
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	<i>Not answered.</i>
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	<i>Not answered.</i>
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	<i>Not answered.</i>
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	<i>Not answered.</i>
Ground Water Abatement pursuant to 19.15.30 NMAC	<i>Not answered.</i>
OTHER (Non-listed remedial process)	<i>Not answered.</i>
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 09/03/2026
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 621212

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 621212

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	405964
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/29/2024
What was the (estimated) number of samples that were to be gathered	20
What was the sampling surface area in square feet	882

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	2197
What was the total volume (cubic yards) remediated	1864
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	2197
What was the total volume (in cubic yards) reclaimed	275
Summarize any additional remediation activities not included by answers (above)	SITE HAS BEEN RIPPED AND SEEDED

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 (in .pdf format) 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.

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.

I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 09/03/2026
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QUESTIONS, Page 7

Action 621212

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	2197
What was the total volume of replacement material (in cubic yards) for this site	275
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeded commence(d)	01/16/2025
Summarize any additional reclamation activities not included by answers (above)	RIPPED AND SEEDED
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeded plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 09/03/2026

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QUESTIONS, Page 8

Action 621212

QUESTIONS (continued)

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	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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CONDITIONS

Action 621212

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 621212
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Reclamation Remediation Closure Report for Incident #nAPP2329938319 WEST MOUNT SPILL M, thank you. The Reclamation Remediation Closure Report is approved.	9/4/2026