WEST MOUNT SPILL E
CLOSURE REQUEST

API NO. 30-005-64381
Unit Letter N, Section 19, Township 15S, Range 29E
CHAVES COUNTY, NEW MEXICO

DATE OF RELEASE: 09/20/2023
INCIDENT NO. NAPP2329156011

11/20/2025
Prepared by:

2724 NW COUNTY ROAD
HOBBS, NM 88240

November 20, 2025

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 E

API No. 30-005-64381
Incident No. NAPP2329156011
Unit Letter N, Section 19, Township 15S, Range 29E
Chaves County, New Mexico

To Whom It May Concern:

Mack Energy engaged Energy Staffing Services, LLC (ESS) to conduct a spill assessment for the produced water release that occurred on September 20, 2023, at the West Mount Spill E site (hereafter referred to as "Spill E"). On September 22, 2023, at 4:12 p.m., ESS notified the New Mexico Oil Conservation Division (NMOCD) District I Office via email regarding the release (see attached notification). On behalf of Mack Energy, ESS subsequently submitted the initial Form C-141 Release Notification and the spill calculator used to determine the release volume on October 18, 2023 (attachments provided). The NMOCD accepted the Form C-141 as official on October 18, 2023, at 4:44 p.m., and assigned the incident number NAPP2329156011 (see attached correspondence).

This report provides a comprehensive summary of the spill assessment, site delineation, and remedial activities completed at Spill E. It confirms that the closure criteria established under 19.15.29.12 of the New Mexico Administrative Code (NMAC; New Mexico Oil Conservation Division, 2018) have been met and that all applicable regulatory requirements have been satisfied. Accordingly, this document serves as the final report submitted to the NMOCD in support of Mack Energy's request for closure of the referenced release.

Incident Description

On September 20, 2023, Well Spring, a water transfer company, identified a failure in their lay-flat line that resulted in the release of produced water into the pasture area at Spill E. Upon discovery of the release, ESS was notified and immediately dispatched personnel to the site to perform a comprehensive environmental site assessment. Based on measurements of the impacted area, approximately 6.21 bbls of produced water were released into the pasture, with no recoverable fluid observed. Initial site photographs and measurements of the affected area were collected; please refer to the attached documentation for additional details.

Site Characterization

The release at Spill E occurred on State Land, located at latitude 32.9955899 and longitude -104.07048, approximately 20.0 miles southeast of Hagerman, New Mexico. The site is legally described as Unit Letter N, Section 19, Township 15S, and Range 29E in Chaves County, New Mexico. A schematic of the site is attached.

Spill E includes production lines and is situated near production facilities and well pads. The release occurred in the pasture area of the site, which lies at an elevation of 3,745 feet. The area is historically dominated by alkali sacaton, Adonis blazingstar, black grama, blue grama, and other perennial grasses and forbs. Rangeland and vegetation classification details are attached for your reference.

According to the *United States Department of Agriculture Natural Resources Conservation Services*, the soil composition in the Spill E area consists of 100% Tencee-Sotim association (soil map attached). The *FEMA National Flood Hazard Layer* indicates a 0.2% chance of flooding in the area, with a 1% chance of flooding averaging one foot deep or occurring in drainage areas of less than one square mile (flood hazard map attached).

The *United States Department of the Interior, Bureau of Land Management*, has indicated a "low potential" for Karst Geology in the vicinity of Spill E (karst map attached).

There is no surface water bodies in proximity to the site, and it is not located near a continuously flowing watercourse or lakebed within a half-mile radius of the release. A watercourse map is attached for reference.

The nearest water wells, according to the *New Mexico Office of the State Engineer*, are as follows:

- RA12428, drilled in 2016, with a well depth of 170 feet and a groundwater depth of 125 feet, located 6,360 meters from the site.
- RA12429 POD1, drilled in 2016, with a well depth of 62 feet and a groundwater depth of 27 feet, located 8,229 meters from the site.

- RA09248, drilled in 1996, with a well depth of 150 feet and a groundwater depth of 45 feet, located 8,310 meters from the site.
- RA10280, drilled in 2002, with a well depth of 70 feet and a groundwater depth of 40 feet, located 8,470 meters from the site.
- L14514 POD 1, drilled in 2018, with a well depth of 208 feet and a groundwater depth of 77 feet, located 8,795 meters from the site.

An extended groundwater search was conducted using the *OSE POD Mapping System* and found one other well within a half-mile radius of the release:

- RA12007 POD 1, with no drill date, well depth, or groundwater depth available.

The NMOSE, OSE POD, and groundwater maps are attached for your review.

Closure Criteria Determination

The closure criteria for soils impacted by the release are outlined in the chart below. Since there is no available groundwater data within a half-mile radius of the release point at Spill E and given the site's location on State Land with "low karst potential", the site was categorized under the <50' to groundwater criteria. This classification is solely due to the absence of recent or available groundwater depth information.

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 confirming that the release has impacted the soil at Spill E. The remediation and abatement procedures followed are aligned with the goals and objectives outlined in the *NMOCD Closure Criteria for Soils Impacted by a Release, dated August 14, 2018*. This document outlines Mack Energy's initial response actions, site assessment, and sampling procedures conducted by ESS personnel. Below is a summary of the delineation process for the release.

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 November 15, 2023, ESS arrived at the Spill E site to establish delineation sample points, which were GPS-located. The crews began collecting surface samples, which were field-tested, logged, and submitted to Envirotech Laboratory for confirmation. A total of 4 vertical sample points and 7 horizontal sample points were established. Samples were collected using a backhoe in 1-foot and 2-foot intervals. Bottom hole samples were then sent to the laboratory for further analysis and confirmation.

Please refer to the delineation sample data provided below, with laboratory results highlighted in yellow. Additional sample data, the delineation sample map, and the lab analysis are attached to this report for your review.

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	Dates
SP1	SURF	640	L	ND	ND	ND	ND	ND	569	11/15/2023
	2	400								
	4	400	L	ND	ND	ND	ND	ND	258	6/24/2024
SP2	SURF	1200	L	ND	ND	ND	ND	ND	1280	11/15/2023
	2	320								
	4	400								
	6	320	L	ND	ND	ND	ND	ND	200	6/24/2024

SP3	SURF	2240	L	ND	ND	ND	ND	ND	2260	11/15/2023
	2	320								
	4	480								
	6	400	L	ND	ND	ND	ND	ND	371	6/24/2024
SP4	SURF	2080	L	ND	ND	ND	ND	ND	5030	11/15/2023
	2	1280								
	4	1280								
	6	480								
	8	240	L	ND	ND	ND	ND	ND	134	6/24/2024
SW1	SURF	240	L	ND	ND	ND	ND	ND	44.1	11/15/2023
	1	240								
	2	240	L	ND	ND	ND	ND	ND	111	6/24/2024
SW2	SURF	800	L	ND	ND	ND	ND	ND	834	11/15/2023
	1	240								
	2	160	H	ND	ND	25.7	69.7	95.4	141	6/24/2024
	3	80								
	4	80	L	ND	ND	ND	ND	ND	58.8	7/1/2024
SW3	SURF	400	L	ND	ND	ND	51.7	51.7	684	11/15/2023
	1	320								
	2	240	L	ND	ND	ND	ND	ND	149	6/24/2024
SW4	SURF	560	L	ND	ND	ND	ND	ND	876	11/15/2023
	1	240								
	2	240	L	ND	ND	ND	ND	ND	59.1	6/24/2024
SW5	SURF	1120	L	ND	ND	ND	ND	ND	2390	11/15/2023
	1	160								
	2	160	L	ND	ND	ND	ND	ND	ND	6/24/2024
SW6	SURF	80	L	ND	ND	ND	ND	ND	52.2	6/25/2024
	1	1280								
	2	1200								
	3	800								
	4	640								
	5	480								
	6	240	L	ND	ND	ND	ND	ND	57.9	6/24/2024

SW7	SURF	80	L	ND	ND	ND	ND	ND	49.1	6/25/2024
	1	800								
	2	720								
	3	320								
	4	160	L	ND	ND	ND	ND	ND	ND	6/24/2024

Please find the delineation photos attached to this report. Since the employee responsible for taking photos during the delineation phase is no longer with ESS, the available delineation photos are limited.

On August 19, 2024, ESS issued the official notification to the NMOCD regarding the composite phase of the release at Spill E. The NMOCD received and acknowledged the notification on the same day (see attached email correspondence).

On August 26, 2024, ESS crews began collecting 200 square foot composite samples from the excavation area at Spill E. In total, 13 bottom hole composite samples were gathered, field tested and sent to Envirotech Laboratory for confirmation. The composite sample data is provided below and is also attached to this report, along with lab confirmation results.

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	Dates
COMP1	6	240	L	ND	ND	ND	ND	ND	128	8/26/2024
COMP2	6	240	L	ND	ND	ND	ND	ND	213	8/26/2024
COMP3	6	400	L	ND	ND	ND	ND	ND	484	8/26/2024
COMP4	6	400	L	ND	ND	ND	ND	ND	476	8/26/2024
COMP5	6	240	L	ND	ND	ND	ND	ND	127	8/26/2024
COMP6	6	400	L	ND	ND	ND	ND	ND	277	8/26/2024
COMP7	6	240	L	ND	ND	ND	ND	ND	111	8/26/2024
COMP8	6	400	L	ND	ND	ND	ND	ND	271	8/26/2024
SWCOMP1	6	160	L	ND	ND	ND	ND	ND	70.2	8/26/2024
SWCOMP2	6	240	L	ND	ND	ND	ND	ND	110	8/26/2024

SWCOMP3	6	320	L	ND	ND	ND	ND	ND	212	8/26/2024
SWCOMP4	6	320	L	ND	ND	ND	ND	ND	207	8/26/2024
SWCOMP5	6	240	L	ND	ND	ND	ND	ND	109	8/26/2024

Please find the attached remediation photographs.

The impacted area at Spill E measured approximately 1,082 square feet. During remediation, a total of 380 cubic yards of contaminated soil was excavated and transported to Gandy's Disposal for proper disposal. Additionally, 400 cubic yards of caliche were hauled from Gandy's Disposal to the site for backfilling, along with 84 cubic yards of topsoil sourced from the landowner's pit.

The site was then contoured and sloped back to its natural grade before being reseeded. Backfilling and seeding activities were completed on January 13, 2025. Final post-remediation photographs are attached to this report.

Closure Request

On behalf of Mack Energy, Energy Staffing Services LLC (ESS) respectfully requests closure of incident NAPP2329156011 related to the produced water release at the West Mount Spill E pasture area. Mack Energy and ESS certify that all information provided in this report is accurate and complete and that all applicable closure requirements for this release have been met in accordance with NMOCD regulations.

Should you have any questions or require additional information regarding this closure request, please contact the undersigned at (575) 390-6397 or (575) 393-9048, or email inquiries to **natalie@energystaffingllc.com**.

Sincerely,

Natalie Gladden
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 Executive Report

Outlook

FW: MACK ENERGY - WESTMOUNT FEDERAL COM #1 RELEASE'S

From Natalie Gladden <natalie@energystaffingllc.com>
Date Thu 1/30/2025 11:28 AM
To Brittney Corral <brittney@energystaffingllc.com>

Natalie Gladden
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

From: Natalie Gladden
Sent: Tuesday, September 26, 2023 2:39 PM
To: ocdonline, emnrd, EMNRD <EMNRD.OCDOnline@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>; Amos, James A <JAMOS@BLM.GOV>; staylor@blm.gov
Cc: mattbuckles@mec.com
Subject: RE: MACK ENERGY - WESTMOUNT FEDERAL COM #1 RELEASE'S

Here is the last of them. C141's will be finalized and uploaded shortly. I will send an update with Incident numbers when they are completed.

LOCATION	BBLS RELEASED	BBLS RECOVERED	LAT	LONG	INCIDENT NO.
WEST MOUNT #1 RELEASE	96.64	0	32.978491	-104.094969	NAPP2325464608
WEST MOUNT 9.14.23 RELEASE	206.76	0	32.98084	-104.12499	NAPP2326353635
WEST MOUNT 1A	156.17	0	32.97852	-104.09253	
WEST MOUNT 1B	341.08	0	32.97878	-104.090782	
WEST MOUNT SPILL A	84.53	0	33.000002	-104.070796	
WEST MOUNT SPILL B	16.35	0	32.999326	-104.071112	
WEST MOUNT SPILL C	30.56	0	32.988705	-104.072056	
WEST MOUNT SPILL D	23.97	0	32.997553	-104.070702	
WEST MOUNT SPILL E	6.21	0	32.995899	-104.070484	
WEST MOUNT SPILL F	52.01	0	32.993548	-104.06973	
WEST MOUNT SPILL G	39.14	0	32.99116	-104.069688	
WEST MOUNT SPILL H	32.78	0	32.98947	-104.069673	
WEST MOUNT SPILL I	5.55	0	32.977062	-104.07104	
WEST MOUNT SPILL J	9.57	0	32.987071	-104.07267	
WEST MOUNT SPILL K	137.04	0	32.986297	-104.073293	
WEST MOUNT SPILL L	5.63	0	32.980975	-104.076513	
WEST MOUNT SPILL M	4.33	0	32.980377	-104.077642	
WEST MOUNT SPILL N	27.95	0	32.980198	-104.07756	
WEST MOUNT SPILL O	37.6	0	32.97911	-104.07904	
WEST MOUNT SPILL P	11.47	0	32.978302	-104.086227	
WEST MOUNT SPILL Q	28.39	0	32.9785	-104.088419	
WEST MOUNT SPILL R	57.7	0	32.978615	-104.098708	
WEST MOUNT SPILL S	37.79	0	32.980236	-104.100214	
WEST MOUNT SPILL T	1.96	0	32.981999	-104.100329	

WEST MOUNT SPILL U	72.38	0	32.983718	-104.099543	
WEST MOUNT SPILL V	29.73	0	32.983887	-104.099136	
WEST MOUNT SPILL W	158.62	0	32.984507	-104.09919	
WEST MOUNT SPILL X	20.11	0	32.986417	-104.101312	
WEST MOUNT SPILL Y	18.18	0	32.987519	-104.102957	
WEST MOUNT SPILL Z	459.2	0	32.989524	-104.110031	
WEST MOUNT SPILL AA	14.97	0	32.988148	-104.11355	
WEST MOUNT SPILL BB	14.58	0	32.987211	-104.115205	
WEST MOUNT SPILL CC	25.44	0	32.983495	-104.119472	
WEST MOUNT SPILL DD	13.66	0	32.981861	-104.120784	

Natalie Gladden
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

From: Natalie Gladden
Sent: Friday, September 22, 2023 4:12 PM
To: ocdonline, emnrd, EMNRD <EMNRD.OCDOnline@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>; Amos, James A <JAMOS@BLM.GOV>; staylor@blm.gov
Cc: mattbuckles@mec.com
Subject: MACK ENERGY - WESTMOUNT FEDERAL COM #1 RELEASE'S
Importance: High

All,

On September 9th, Matt Buckles with Mack Energy reported a release at the Westmount #1 at 12:31pm by email. This incident report is NAPP2325464608. On September 14th, another report of a release was sent out also on the same line but in a different area, this incident report is NAPP2326353635. The frac line company known as Well Spring Automation, LLC is responsible for laying, maintaining, and removing said frac line and is contracted by Mack Energy to do so. After further investigation due to the sizes of two spills mentioned above, the following releases have been located, photo'd, and mapped. This is a large list of releases. We were not sure how to handle this as we are still finding the releases currently. As of right now we know of 23 releases that have occurred over the last two days. Crews are on site and documenting each release. As we are aware each release will have its own C141 and incident number. We will send out additional notifications as they become available, spills are located and documented. Each release will be handled individually moving forward. Below is the first set of releases that will be added to the Westmount Federal Com #1 list:

LOCATION	BBLS RELEASED	BBLS RECOVERED	LAT	LONG	INCIDENT NO.
WEST MOUNT #1 RELEASE	96.64	0	32.978491	-104.094969	NAPP2325464608
WEST MOUNT 9.14.23 RELEASE	206.76	0	32.98084	-104.12499	NAPP2326353635
WEST MOUNT 1A	156.17	0	32.97852	-104.09253	
WEST MOUNT 1B	341.08	0	32.97878	-104.090782	
WEST MOUNT SPILL A	84.53	0	33.000002	-104.070796	
WEST MOUNT SPILL B	16.35	0	32.999326	-104.071112	
WEST MOUNT SPILL C	30.56	0	32.988705	-104.072056	
WEST MOUNT SPILL D	23.97	0	32.997553	-104.070702	
WEST MOUNT SPILL E	6.21	0	32.995899	-104.070484	
WEST MOUNT SPILL F	52.01	0	32.993548	-104.06973	
WEST MOUNT SPILL G	39.14	0	32.99116	-104.069688	
WEST MOUNT SPILL H	32.78	0	32.98947	-104.069673	
WEST MOUNT SPILL I	5.55	0	32.977062	-104.07104	
WEST MOUNT SPILL J	9.57	0	32.987071	-104.07267	

WEST MOUNT SPILL K	137.04	0	32.986297	-104.073293	
WEST MOUNT SPILL L	5.63	0	32.980975	-104.076513	
WEST MOUNT SPILL M	4.33	0	32.980377	-104.077642	
WEST MOUNT SPILL N	27.95	0	32.980198	-104.07756	
WEST MOUNT SPILL O	37.6	0	32.97911	-104.07904	
WEST MOUNT SPILL P	11.47	0	32.978302	-104.086227	
WEST MOUNT SPILL Q	28.39	0	32.9785	-104.088419	
WEST MOUNT SPILL R	57.7	0	32.978615	-104.098708	
WEST MOUNT SPILL S	37.79	0	32.980236	-104.100214	

We will be making more updates as releases are found. C141's will be sent out to the BLM and uploaded to the NMOCD as soon as possible.

If you have any questions, please let me know.

Natalie Gladden
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

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	NAPP2329156011
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 # *(assigned by OCD)*
Contact mailing address **11344 Lovington Highway, Artesia NM 88210**	

Location of Release Source

Latitude **32.9955899** Longitude **-104.07048**
(NAD 83 in decimal degrees to 5 decimal places)

Site Name **WEST MOUNT SPILL E**	Site Type **PRODUCTION AREA**
Date Release Discovered **9/20/2023**	API# *(if applicable)* ***30-005-64381***

Unit Letter	Section	Township	Range	County
N	**19**	**15S**	**29E**	**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) **6.21**	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
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2329156011
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 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 not 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: **NATALIE GLADDEN** Title: **DIRECTOR OF ENVIRONMENTAL AND REGULATORY**

Signature: Natalie Gladden Date: 10/18/23

email: **natalie@energystaffingll.com** Telephone: **575-390-6397**

OCD Only

Received by: Shelly Wells Date: 10/18/2023

MACK ENERGY - WEST MOUNT SPILL E

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	63.03	26.65	0.083	139.41921	6.21	Medium Sand
Coarse Sand	0.26	10	10	0.083	8.3	0.38	Coarse Sand
Gravely Sand	0.26	10	10	0.083	8.3	0.38	Gravely 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 requred *(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)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 277163
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	10/18/2023

MACK ENERGY

WEST MOUNT SPILL E
IMPACT MAP

Legend

- Mack Energy- West Mount Spill E- 1082 SQ. FT.
- WEST MOUNT SPILL E

WEST MOUNT SPILL E

Google Earth

N

100 ft

MACK ENERGY: WEST MOUNT SPILL E
INITIAL SITE PHOTOS


September 21, 2023 at 11:03
+32.995738,-104.070595
United States
Mack Energy
West Mount #1
Frac line spill…E


September 21, 2023 at 11:04
+32.995969,-104.070564
United States
Mack Energy
West Mount #1
Frac line spill...E


September 21, 2023 at 11:05
+32.995844,-104.070619
United States
Mack Energy
West Mount #1
Frac line spill - E


September 21, 2023 at 11:03
+32.995738,-104.070595
United States
Mack Energy
West Mount #1
Frac line spill...E

MACK ENERGY

WEST MOUNT SPILL E
SITE MAP

Legend
WEST MOUNT SPILL E

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.

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

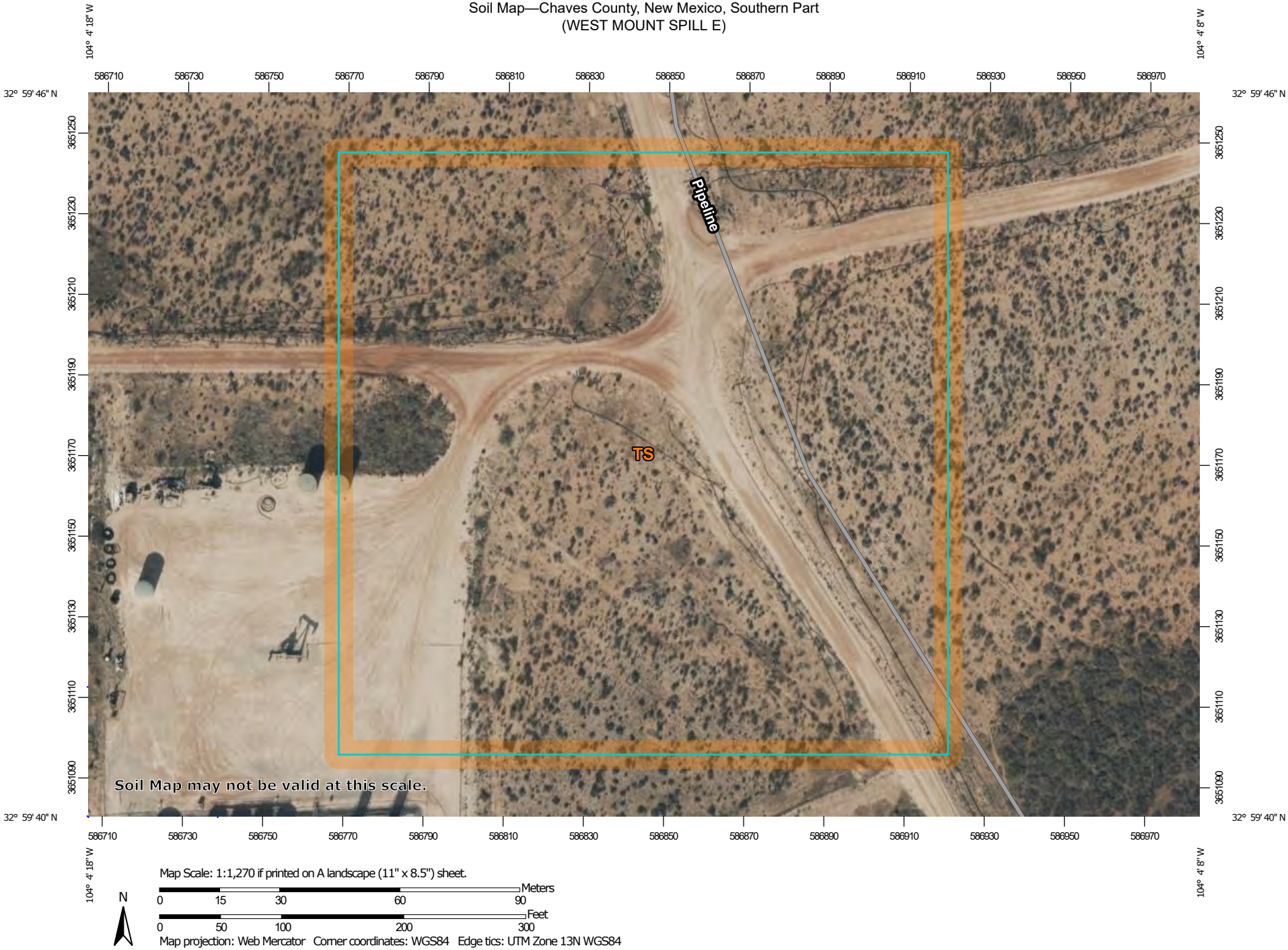
Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition–Chaves County, New Mexico, Southern Part								
Map unit symbol and soil name	Ecological Site, Plant Association, or Habitat Type	Total dry-weight production			Characteristic rangeland or forest understory vegetation	Composition		
		Favorable year	Normal year	Unfavorable year			Rangeland	Forest understory
		Lb/ac	*Lb/ac*	*Lb/ac*		*Pct dry wt*	*Pct dry wt*	
Aa—Alama loam								
Alama	Loamy (R070BC007NM)	1,200	—	650	Adonis blazingstar	30		
					black grama	15		
					other perennial grasses	15		
					blue grama	10		
					bush muhly	5		
					little bluestem	5		
					other shrubs	5		
					other perennial forbs	5		
					rabo de ardilla	5		
					threeawn	5		
					yucca	5		

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*	
HrC—Holloman-Gypsum land complex, 3 to 5 percent slopes								
Holloman	Gyp Upland (R070BB006NM)	800	600	375	alkali sacaton	45		
					black grama	10		
					coldenia	10		
					blue grama	5		
					fourwing saltbush	5		
					gyp dropseed	5		
					gypsum grama	5		
					other shrubs	5		
					other perennial forbs	5		
					other perennial grasses	5		
Gypsum land	—	—	—	—	—			

Data Source Information

Soil Survey Area: Chaves County, New Mexico, Southern Part
Survey Area Data: Version 18, Sep 7, 2023

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



Map Scale: 1:1,270 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

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

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
TS	Tencee-Sotim association	5.6	100.0%
Totals for Area of Interest		**5.6**	**100.0%**

National Flood Hazard Layer FIRMette

FEMA

104°4'32"W 32°59'59"N

104°3'55"W 32°59'29"N

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

1:6,000

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 / 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
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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 6/4/2024 at 4:17 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.

MACK

WEST MOUNT SPILL E
KARST MAP

MACK ENERGY

WEST MOUNT SPILL E
WETLANDS MAP

Legend

- PEM
- RIVERINE
- WEST MOUNT SPILL E

PEM 1
PEM 11
PEM 3
PEM 10
PEM 4
PEM 12
PEM 9
PEM8
WEST MOUNT SPILL E
RIVERINE 1
RIVERINE 2
PEM 6
PEM 7
RIVERINE 3
RIVERINE 4
RIVERINE 5
Pipeline
Round Tank
PEM 2
PEM 5

Google Earth
Image © 2025 Airbus
2000 ft
N

MACK ENERGY

WEST MOUNT SPILL E
WATERCOURSE MAP

Legend

WEST MOUNT SPILL E

New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 586837.77 **Northing (Y):** 3651181.67 **Radius:** 1000

New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 586837.77 **Northing (Y):** 3651181.67 **Radius:** 5000

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-basin Code	County	Source	q 6416	q 4	q	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	6360	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	8229	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*	8310	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*	8470	06/20/2002	07/15/2002	04/23/2003	70	40	CARREON, FERNANDO	1490
L 14514 POD1	L	LE	Shallow	2	2	1	32	15S	36E	595494	3649622	8795	08/09/2018	08/10/2018	08/17/2018	208	77	JOHN GOERTZEN	1611
RA 09059	RA	CH	Shallow	2	4	4	18	15S	28E	578099	3652875*	8901	11/13/1995	01/15/1996	02/08/1997	110	35	RAYMOND ANDERSON	1344

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 586837.77 **Northing (Y):** 3651181.67 **Radius:** 10000

***UTM location was derived from PLSS - see Help**

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	**Plug Date:**	
Log File Date:	08/08/2016	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	15 GPM
Casing Size:	4.50	**Depth Well:**	170 feet	**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	**Plug Date:**	
Log File Date:	11/28/2016	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
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

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) 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**

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	**Plug Date:**	
Log File Date:	04/23/2003	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:	SUBMER	**Pipe Discharge Size:**	1.25	**Estimated Yield:**	10 GPM
Casing Size:	5.00	**Depth Well:**	70 feet	**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**

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
20765	L 14514 POD1	2	2	1	32	15S	36E	595494	3649622

Driller License: 1611 **Driller Company:** GOERTZEN DRILLING
Driller Name: JOHN GOERTZEN

Drill Start Date: 08/09/2018 **Drill Finish Date:** 08/10/2018 **Plug Date:**
Log File Date: 08/17/2018 **PCW Rcv Date:** **Source:** Shallow
Pump Type: **Pipe Discharge Size:** **Estimated Yield:**
Casing Size: 5.00 **Depth Well:** 208 feet **Depth Water:** 77 feet

Water Bearing Stratifications:	Top	Bottom	Description
	104	125	Sandstone/Gravel/Conglomerate
	125	150	Sandstone/Gravel/Conglomerate
	150	160	Sandstone/Gravel/Conglomerate
	162	175	Other/Unknown
	175	185	Sandstone/Gravel/Conglomerate
	185	202	Sandstone/Gravel/Conglomerate
	202	205	Other/Unknown
	205	208	Other/Unknown

Casing Perforations:	Top	Bottom
	0	208

Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE
quarters are smallest to largest

NAD83 UTM in meters

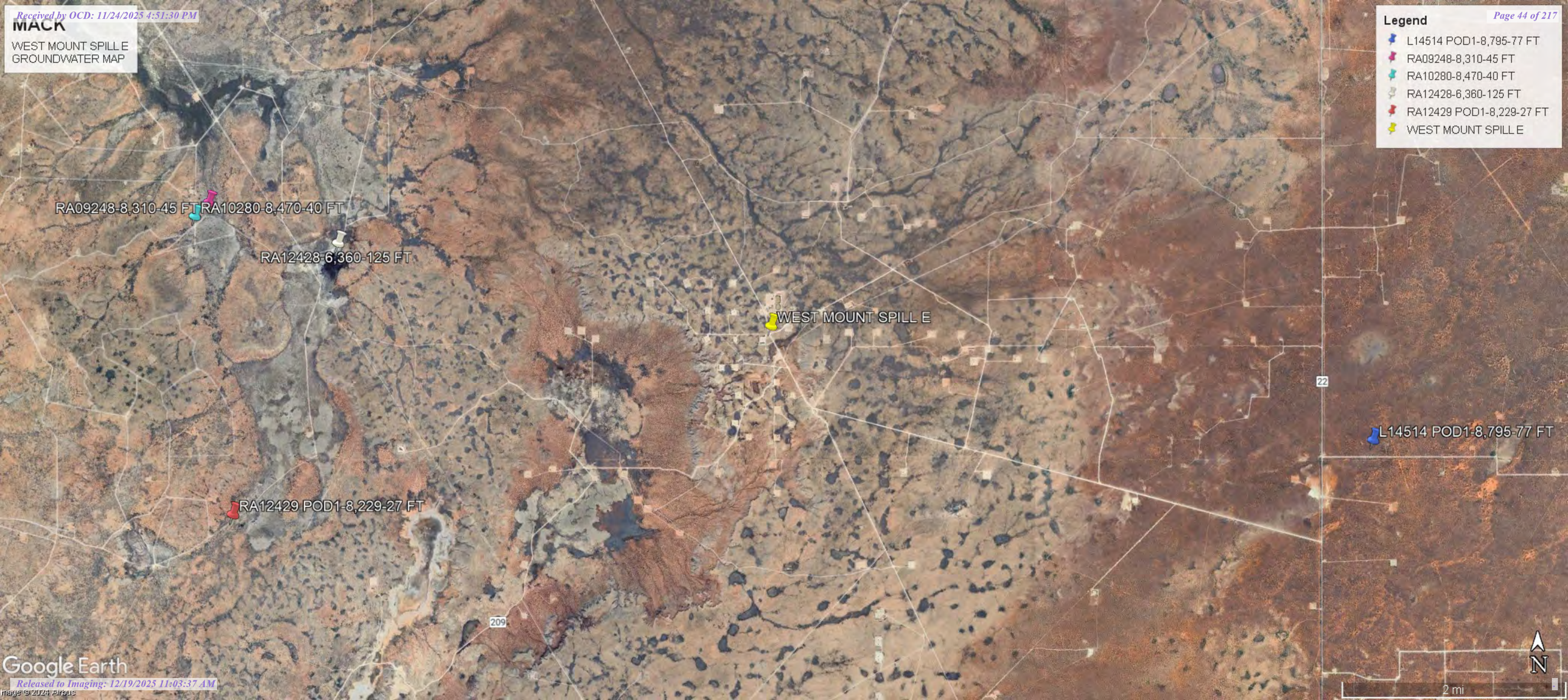
Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
	RA 12007 POD1	SE	NE	SW	19	15S	29E	586999.1	3651508.8	

*** UTM location was derived from PLSS - see Help**

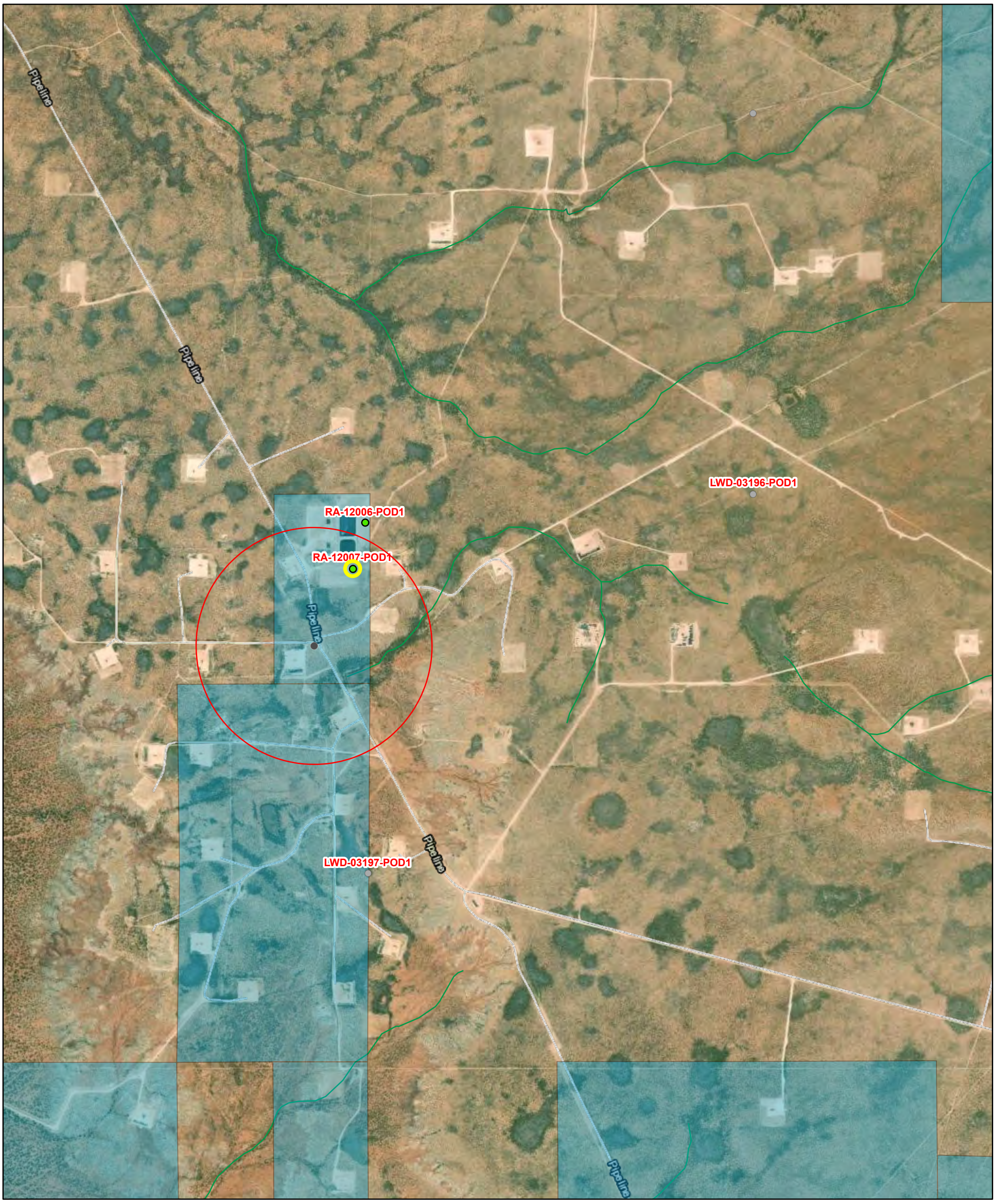
Driller License:	**Driller Company:**	
Driller Name:		
Drill Start Date:	**Drill Finish Date:**	**Plug Date:**
Log File Date:	**PCW Rcv Date:**	**Source:**
Pump Type:	**Pipe Discharge Size:**	**Estimated Yield:**
Casing Size:	**Depth Well:**	**Depth Water:**

MACK

WEST MOUNT SPILL E
GROUNDWATER MAP



OSE POD Location Map



6/21/2024, 12:03:21 PM

GIS WATERS PODs

Pending

OSE District Boundary

New Mexico State Trust Lands

Both Estates

NHD Flowlines

Artificial Path

Stream River

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

Online web user

This is an unofficial map from the OSE's online application.

Company Name: MACK **Location Name:** WEST MOUNT SPILL E **Release Date:**

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	Soil	Notes
SP1	SURF	640	L	ND	ND	ND	ND	ND	569		
	2	400									
	4	400	L	ND	ND	ND	ND	ND	258		
SP2	SURF	1200	L	ND	ND	ND	ND	ND	**1280**		
	2	320									
	4	400									
	6	320	L	ND	ND	ND	ND	ND	200		
SP3	SURF	2240	L	ND	ND	ND	ND	ND	**2260**		
	2	320									
	4	480									
	6	400	L	ND	ND	ND	ND	ND	371		
SP4	SURF	2080	L	ND	ND	ND	ND	ND	**5030**		
	2	1280									
	4	1280									
	6	480									
	8	240	L	ND	ND	ND	ND	ND	134		
SW1	SURF	240	L	ND	ND	ND	ND	ND	44.1		
	1	240									
	2	240	L	ND	ND	ND	ND	ND	111		
SW2	SURF	800	L	ND	ND	ND	ND	ND	**834**		
	1	240									
	2	160	**H**	ND	ND	**25.7**	**69.7**	**95.4**	141		
	3	80									
	4	80	L	ND	ND	ND	ND	ND	58.8		
SW3	SURF	400	L	ND	ND	ND	51.7	51.7	**684**		

	1	320									
	2	240	L	ND	ND	ND	ND	ND	149		
SW4	SURF	560	L	ND	ND	ND	ND	ND	**876**		
	1	240									
	2	240	L	ND	ND	ND	ND	ND	59.1		
SW5	SURF	1120	L	ND	ND	ND	ND	ND	**2390**		
	1	160									
	2	160	L	ND	ND	ND	ND	ND	ND		
SW6	SURF	80	L	ND	ND	ND	ND	ND	52.2		
	1	1280									
	2	1200									
	3	800									
	4	640									
	5	480									
	6	240	L	ND	ND	ND	ND	ND	57.9		
SW7	SURF	80	L	ND	ND	ND	ND	ND	49.1		
	1	800									
	2	720									
	3	320									
	4	160	L	ND	ND	ND	ND	ND	ND		

MACK ENERGY

WEST MOUNT SPILL E
DELINEATION MAP

Legend
- HORIZONTAL SAMPLE PTS
- VERTICAL SAMPLE PTS
- WEST MOUNT E SAMPLE MAP
- WEST MOUNT SPILL E

SW5
Sp4
SW4
WEST MOUNT SPILL E
SW3
SW6
Sp3
Sp2
SW7
SW2
Sp1
SW1

Google Earth

Image © 2024 Airbus
50 ft
N

CLIENTS: MACK ENERGY
LOCATION: WEST MOUNT SPILL E

SAMPLE ID	LAT	LONG
Sp1	32.995830°	-104.070605°
Sp2	32.995822°	-104.070570°
Sp3	32.995898°	-104.070598°
Sp4	32.995925°	-104.070556°
SW1	32.995795°	-104.070552°
SW2	32.995814°	-104.070655°
SW3	32.995889°	-104.070624°
SW4	32.995945°	-104.070569°
SW5	32.995946°	-104.070522°
SW6	32.995905°	-104.070555°
SW7	32.995843°	-104.070557°

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:	Frac Line Spill E
Work Order:	E311138
Job Number:	20046-0001
Received:	11/17/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/20/23

Date Reported: 11/20/23

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: Frac Line Spill E
Workorder: E311138
Date Received: 11/17/2023 7:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/17/2023 7:00:00AM, under the Project Name: Frac Line Spill E.

The analytical test results summarized in this report with the Project Name: Frac Line Spill E 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 reguarding 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

Sample Summary

Mack Energy	Project Name:	Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/23 16:50

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW 1- Surf	E311138-01A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.
SW 2- Surf	E311138-02A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.
SW 3-Surf	E311138-03A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.
SW 4- Surf	E311138-04A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.
SW 5- Surf	E311138-05A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.

Sample Data

Mack Energy	Project Name:	Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

SW 1- Surf

E311138-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*96.4 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*110 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*96.4 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*110 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*88.6 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**44.1**	20.0	1	11/17/23	11/20/23	

Sample Data

Mack Energy	Project Name:	Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

SW 2- Surf

E311138-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*99.2 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*99.2 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*89.4 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**834**	20.0	1	11/17/23	11/20/23	

Sample Data

Mack Energy	Project Name:	Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

SW 3-Surf

E311138-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*99.4 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*99.4 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	**51.7**	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*90.3 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**684**	20.0	1	11/17/23	11/20/23	

Sample Data

Mack Energy	Project Name:	Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

SW 4- Surf

E311138-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*100 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*110 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*100 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*110 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*87.5 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**876**	20.0	1	11/17/23	11/20/23	

Sample Data

Mack Energy	Project Name:	Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

SW 5- Surf

E311138-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*101 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*113 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*101 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*113 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*89.6 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**2390**	40.0	2	11/17/23	11/20/23	

QC Summary Data

Mack Energy	Project Name:	Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

Volatile Organic Compounds by EPA 8260B

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2346110-BLK1)									Prepared: 11/17/23 Analyzed: 11/17/23
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	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.537*		*0.500*		*107*	*70-130*			
LCS (2346110-BS1)									Prepared: 11/17/23 Analyzed: 11/17/23
Benzene	2.35	0.0250	2.50		94.0	70-130			
Ethylbenzene	2.41	0.0250	2.50		96.4	70-130			
Toluene	2.41	0.0250	2.50		96.5	70-130			
o-Xylene	2.33	0.0250	2.50		93.0	70-130			
p,m-Xylene	4.66	0.0500	5.00		93.2	70-130			
Total Xylenes	6.98	0.0250	7.50		93.1	70-130			
Surrogate: Bromofluorobenzene	*0.481*		*0.500*		*96.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.533*		*0.500*		*107*	*70-130*			
Matrix Spike (2346110-MS1)				**Source: E311138-02**					Prepared: 11/17/23 Analyzed: 11/17/23
Benzene	2.45	0.0250	2.50	ND	97.9	48-131			
Ethylbenzene	2.56	0.0250	2.50	ND	103	45-135			
Toluene	2.56	0.0250	2.50	ND	102	48-130			
o-Xylene	2.42	0.0250	2.50	ND	97.0	43-135			
p,m-Xylene	4.87	0.0500	5.00	ND	97.5	43-135			
Total Xylenes	7.30	0.0250	7.50	ND	97.3	43-135			
Surrogate: Bromofluorobenzene	*0.481*		*0.500*		*96.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.543*		*0.500*		*109*	*70-130*			
Matrix Spike Dup (2346110-MSD1)				**Source: E311138-02**					Prepared: 11/17/23 Analyzed: 11/17/23
Benzene	2.32	0.0250	2.50	ND	93.0	48-131	5.18	23	
Ethylbenzene	2.44	0.0250	2.50	ND	97.4	45-135	5.14	27	
Toluene	2.46	0.0250	2.50	ND	98.5	48-130	3.75	24	
o-Xylene	2.37	0.0250	2.50	ND	94.9	43-135	2.11	27	
p,m-Xylene	4.78	0.0500	5.00	ND	95.5	43-135	2.06	27	
Total Xylenes	7.15	0.0250	7.50	ND	95.3	43-135	2.08	27	
Surrogate: Bromofluorobenzene	*0.499*		*0.500*		*99.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.514*		*0.500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.538*		*0.500*		*108*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2346110-BLK1)									Prepared: 11/17/23 Analyzed: 11/17/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.537*		*0.500*		*107*	*70-130*			
LCS (2346110-BS2)									Prepared: 11/17/23 Analyzed: 11/17/23
Gasoline Range Organics (C6-C10)	50.3	20.0	50.0		101	70-130			
Surrogate: Bromofluorobenzene	*0.503*		*0.500*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.552*		*0.500*		*110*	*70-130*			
Matrix Spike (2346110-MS2)				**Source: E311138-02**					Prepared: 11/17/23 Analyzed: 11/17/23
Gasoline Range Organics (C6-C10)	49.4	20.0	50.0	ND	98.9	70-130			
Surrogate: Bromofluorobenzene	*0.500*		*0.500*		*99.9*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.519*		*0.500*		*104*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			
Matrix Spike Dup (2346110-MSD2)				**Source: E311138-02**					Prepared: 11/17/23 Analyzed: 11/17/23
Gasoline Range Organics (C6-C10)	48.2	20.0	50.0	ND	96.3	70-130	2.63	20	
Surrogate: Bromofluorobenzene	*0.500*		*0.500*		*99.9*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.514*		*0.500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.548*		*0.500*		*110*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2346123-BLK1)									Prepared: 11/17/23 Analyzed: 11/17/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.0*		*50.0*		*94.0*	*50-200*			
LCS (2346123-BS1)									Prepared: 11/17/23 Analyzed: 11/17/23
Diesel Range Organics (C10-C28)	231	25.0	250		92.4	38-132			
Surrogate: n-Nonane	*48.5*		*50.0*		*97.0*	*50-200*			
Matrix Spike (2346123-MS1)				**Source: E311137-04**					Prepared: 11/17/23 Analyzed: 11/17/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.6	38-132			
Surrogate: n-Nonane	*48.0*		*50.0*		*96.1*	*50-200*			
Matrix Spike Dup (2346123-MSD1)				**Source: E311137-04**					Prepared: 11/17/23 Analyzed: 11/17/23
Diesel Range Organics (C10-C28)	224	25.0	250	ND	89.4	38-132	2.36	20	
Surrogate: n-Nonane	*48.1*		*50.0*		*96.1*	*50-200*			

QC Summary Data

Mack Energy	Project Name:	Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:50:15PM

Anions by EPA 300.0/9056A

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 (2346124-BLK1)									Prepared: 11/17/23 Analyzed: 11/20/23
Chloride	ND	20.0							
LCS (2346124-BS1)									Prepared: 11/17/23 Analyzed: 11/20/23
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2346124-MS1)				**Source: E311139-04**					Prepared: 11/17/23 Analyzed: 11/20/23
Chloride	5200	200	250	5030	68.8	80-120			M4
Matrix Spike Dup (2346124-MSD1)				**Source: E311139-04**					Prepared: 11/17/23 Analyzed: 11/20/23
Chloride	4920	200	250	5030	NR	80-120	5.58	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:	Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/23 16:50

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.

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Chain of Custody

Project Information

Client: Mack Energy
Project: Frack Line Spill E
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# E311138
Job Number 20046-0001

TAT

1D | 2D X | 3D | Standard

EPA Program

CWA | SDWA | RCRA

State

NM X | CO | UT | AZ | TX

Analysis and Method

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	Remarks
	11/15/23	S	1	SW 1 - SURF	1							X		
				SW 2 - SURF	2									
				SW 3 - SURF	3									
				SW 4 - SURF	4									
	11/15/23	S	1	SW 5 - SURF	5							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: Andy Tobuga

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
Andy Tobuga	11/15/23		Michelle Gaye	11-16-23	1200
Michelle Gaye	11-16-23	1700	Andrew Muse	11.16.23	1800
Andrew Muse	11.16.23	2330		11/17/23	7:00

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

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

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

envirotech

Envirotech Analytical Laboratory

Printed: 11/17/2023 10:01:14AM

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:	11/17/23 07:00	Work Order ID:	E311138
Phone:	(575) 390-6397	Date Logged In:	11/16/23 15:54	Logged In By:	Jordan Montano
Email:	Natalie@energystaffingllc.com	Due Date:	11/20/23 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	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

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 Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
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 filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Comments/Resolution

Time sampled not provided on COC per client.

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 Frac Line Spill E
Work Order:	E311139
Job Number:	20046-0001
Received:	11/17/2023

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/20/23

Date Reported: 11/20/23

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount Frac Line Spill E
Workorder: E311139
Date Received: 11/17/2023 7:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/17/2023 7:00:00AM, under the Project Name: West Mount Frac Line Spill E.

The analytical test results summarized in this report with the Project Name: West Mount Frac Line Spill E 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 reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

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

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

Respectfully,

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

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

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

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ljarboe@envirotech-inc.com

Michelle Golzales
Client Representative
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mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Mack Energy	Project Name:	West Mount Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/23 16:48

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP 1- Surface	E311139-01A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.
SP 2- Surface	E311139-02A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.
SP 3- Surface	E311139-03A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.
SP 4- Surface	E311139-04A	Soil	11/15/23	11/17/23	Glass Jar, 2 oz.

Sample Data

Mack Energy	Project Name:	West Mount Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:48:43PM

SP 1- Surface

E311139-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*98.7 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*98.7 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*111 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*85.9 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**569**	20.0	1	11/17/23	11/20/23	

Sample Data

Mack Energy	Project Name:	West Mount Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:48:43PM

SP 2- Surface

E311139-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*99.6 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*99.5 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*110 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*99.6 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*99.5 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*110 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*88.5 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**1280**	20.0	1	11/17/23	11/20/23	

Sample Data

Mack Energy	Project Name:	West Mount Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:48:43PM

SP 3- Surface

E311139-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*100 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*110 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*100 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*110 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*86.3 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**2260**	40.0	2	11/17/23	11/20/23	

Sample Data

Mack Energy	Project Name:	West Mount Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:48:43PM

SP 4- Surface

E311139-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Benzene	ND	0.0250	1	11/17/23	11/17/23	
Ethylbenzene	ND	0.0250	1	11/17/23	11/17/23	
Toluene	ND	0.0250	1	11/17/23	11/17/23	
o-Xylene	ND	0.0250	1	11/17/23	11/17/23	
p,m-Xylene	ND	0.0500	1	11/17/23	11/17/23	
Total Xylenes	ND	0.0250	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*97.7 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2346110
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/17/23	11/17/23	
Surrogate: Bromofluorobenzene		*97.7 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*11/17/23*	*11/17/23*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*11/17/23*	*11/17/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2346123
Diesel Range Organics (C10-C28)	ND	25.0	1	11/17/23	11/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	11/17/23	11/18/23	
Surrogate: n-Nonane		*88.8 %*	*50-200*	*11/17/23*	*11/18/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: BA			Batch: 2346124
Chloride	**5030**	200	10	11/17/23	11/20/23	

QC Summary Data

Mack Energy	Project Name:	West Mount Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:48:43PM

Volatile Organic Compounds by EPA 8260B

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2346110-BLK1)									Prepared: 11/17/23 Analyzed: 11/17/23
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	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.537*		*0.500*		*107*	*70-130*			
LCS (2346110-BS1)									Prepared: 11/17/23 Analyzed: 11/17/23
Benzene	2.35	0.0250	2.50		94.0	70-130			
Ethylbenzene	2.41	0.0250	2.50		96.4	70-130			
Toluene	2.41	0.0250	2.50		96.5	70-130			
o-Xylene	2.33	0.0250	2.50		93.0	70-130			
p,m-Xylene	4.66	0.0500	5.00		93.2	70-130			
Total Xylenes	6.98	0.0250	7.50		93.1	70-130			
Surrogate: Bromofluorobenzene	*0.481*		*0.500*		*96.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.533*		*0.500*		*107*	*70-130*			
Matrix Spike (2346110-MS1)				**Source: E311138-02**					Prepared: 11/17/23 Analyzed: 11/17/23
Benzene	2.45	0.0250	2.50	ND	97.9	48-131			
Ethylbenzene	2.56	0.0250	2.50	ND	103	45-135			
Toluene	2.56	0.0250	2.50	ND	102	48-130			
o-Xylene	2.42	0.0250	2.50	ND	97.0	43-135			
p,m-Xylene	4.87	0.0500	5.00	ND	97.5	43-135			
Total Xylenes	7.30	0.0250	7.50	ND	97.3	43-135			
Surrogate: Bromofluorobenzene	*0.481*		*0.500*		*96.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.502*		*0.500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.543*		*0.500*		*109*	*70-130*			
Matrix Spike Dup (2346110-MSD1)				**Source: E311138-02**					Prepared: 11/17/23 Analyzed: 11/17/23
Benzene	2.32	0.0250	2.50	ND	93.0	48-131	5.18	23	
Ethylbenzene	2.44	0.0250	2.50	ND	97.4	45-135	5.14	27	
Toluene	2.46	0.0250	2.50	ND	98.5	48-130	3.75	24	
o-Xylene	2.37	0.0250	2.50	ND	94.9	43-135	2.11	27	
p,m-Xylene	4.78	0.0500	5.00	ND	95.5	43-135	2.06	27	
Total Xylenes	7.15	0.0250	7.50	ND	95.3	43-135	2.08	27	
Surrogate: Bromofluorobenzene	*0.499*		*0.500*		*99.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.514*		*0.500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.538*		*0.500*		*108*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:48:43PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2346110-BLK1)									Prepared: 11/17/23 Analyzed: 11/17/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.509*		*0.500*		*102*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.505*		*0.500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.537*		*0.500*		*107*	*70-130*			
LCS (2346110-BS2)									Prepared: 11/17/23 Analyzed: 11/17/23
Gasoline Range Organics (C6-C10)	50.3	20.0	50.0		101	70-130			
Surrogate: Bromofluorobenzene	*0.503*		*0.500*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.508*		*0.500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.552*		*0.500*		*110*	*70-130*			
Matrix Spike (2346110-MS2)				**Source: E311138-02**					Prepared: 11/17/23 Analyzed: 11/17/23
Gasoline Range Organics (C6-C10)	49.4	20.0	50.0	ND	98.9	70-130			
Surrogate: Bromofluorobenzene	*0.500*		*0.500*		*99.9*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.519*		*0.500*		*104*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			
Matrix Spike Dup (2346110-MSD2)				**Source: E311138-02**					Prepared: 11/17/23 Analyzed: 11/17/23
Gasoline Range Organics (C6-C10)	48.2	20.0	50.0	ND	96.3	70-130	2.63	20	
Surrogate: Bromofluorobenzene	*0.500*		*0.500*		*99.9*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.514*		*0.500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.548*		*0.500*		*110*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:48:43PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2346123-BLK1)									Prepared: 11/17/23 Analyzed: 11/17/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.0*		*50.0*		*94.0*	*50-200*			
LCS (2346123-BS1)									Prepared: 11/17/23 Analyzed: 11/17/23
Diesel Range Organics (C10-C28)	231	25.0	250		92.4	38-132			
Surrogate: n-Nonane	*48.5*		*50.0*		*97.0*	*50-200*			
Matrix Spike (2346123-MS1)				**Source: E311137-04**					Prepared: 11/17/23 Analyzed: 11/17/23
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.6	38-132			
Surrogate: n-Nonane	*48.0*		*50.0*		*96.1*	*50-200*			
Matrix Spike Dup (2346123-MSD1)				**Source: E311137-04**					Prepared: 11/17/23 Analyzed: 11/17/23
Diesel Range Organics (C10-C28)	224	25.0	250	ND	89.4	38-132	2.36	20	
Surrogate: n-Nonane	*48.1*		*50.0*		*96.1*	*50-200*			

QC Summary Data

Mack Energy	Project Name:	West Mount Frac Line Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/2023 4:48:43PM

Anions by EPA 300.0/9056A

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 (2346124-BLK1)									Prepared: 11/17/23 Analyzed: 11/20/23
Chloride	ND	20.0							
LCS (2346124-BS1)									Prepared: 11/17/23 Analyzed: 11/20/23
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2346124-MS1)				**Source: E311139-04**					Prepared: 11/17/23 Analyzed: 11/20/23
Chloride	5200	200	250	5030	68.8	80-120			M4
Matrix Spike Dup (2346124-MSD1)				**Source: E311139-04**					Prepared: 11/17/23 Analyzed: 11/20/23
Chloride	4920	200	250	5030	NR	80-120	5.58	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 Frac Line Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/20/23 16:48

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.

Project Information | Chain of Custody | Page 1 of 1

Client: Mack Energy	**Bill To**
Project: Westmount Flowline Spill	Attention: ENERGY STAFFING SERVICES
Project Manager:	Address: 2724 NW COUNTY RD
Address:	City, State, Zip HOBBS, NM 88240
City, State, Zip	Phone: 575-393-9048
Phone:	Email: NATALIE@ENERGYSTAFFINGLLC.COM
Email:	BRITTNEY@ENERGYSTAFFINGLLC.COM
Report due by:	

Lab Use Only: Lab WO# E311139 | Job Number 20046-0001

TAT: 1D | 2D (X) | 3D | Standard

EPA Program: CWA | SDWA | RCRA

State: NM (X) | CO | UT | AZ | TX

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	Remarks
	11/15/23	S	1	Sp 1 - Surface	1							X		
	"	"	"	Sp 2 - Surface	2							"		
	"	"	"	Sp 3 - Surface	3							"		
	11/15/23	S	1	Sp 4 - Surface	4							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: Andy Torrez

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
Andy Torrez	11/15/23		Michelle Gaylor	11-16-23	1200
Michelle Gaylor	11-16-23	1700	Andrew Morris	11.16.23	1800
Andrew Morris	11.16.23	2330	Jennifer Nunez	11/17/23	7:00

Lab Use Only — Received on ice: (Y) / N — T1 ____ T2 ____ T3 ____ — AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ____

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

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

envirotech

Envirotech Analytical Laboratory

Printed: 11/17/2023 10:00:05AM

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:	11/17/23 07:00	Work Order ID:	E311139
Phone:	(575) 390-6397	Date Logged In:	11/16/23 15:55	Logged In By:	Jordan Montano
Email:	Natalie@energystaffingllc.com	Due Date:	11/20/23 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	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	No	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

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 Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
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 filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Comments/Resolution

Time sampled not provided on COC per client.

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 (E)

Work Order: E406232

Job Number: 20046-0001

Received: 6/26/2024

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
6/27/24

Date Reported: 6/27/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount (E)
Workorder: E406232
Date Received: 6/26/2024 6:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/26/2024 6:00:00AM, under the Project Name: West Mount (E).

The analytical test results summarized in this report with the Project Name: West Mount (E) 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 reguarding 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
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Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/27/24 16:44

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP. 1-4'	E406232-01A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SP. 2-6'	E406232-02A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SP. 3-6'	E406232-03A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SP. 4-8'	E406232-04A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SW. 1-2'	E406232-05A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SW. 2-2'	E406232-06A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SW. 3-2'	E406232-07A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SW. 4-2'	E406232-08A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SW. 5-2'	E406232-09A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SW. 6-6'	E406232-10A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.
SW. 7-4	E406232-11A	Soil	06/24/24	06/26/24	Glass Jar, 2 oz.

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SP. 1-4'

E406232-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.1 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*105 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**258**	40.0	2	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SP. 2-6'

E406232-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.5 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*103 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**200**	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SP. 3-6'

E406232-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.8 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*102 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**371**	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SP. 4-8'

E406232-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.2 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*102 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**134**	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SW. 1-2'

E406232-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.6 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*105 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**111**	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SW. 2-2'

E406232-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.3 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*105 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	**25.7**	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	**69.7**	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*107 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**141**	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SW. 3-2'

E406232-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0500	2	06/26/24	06/26/24	
Ethylbenzene	ND	0.0500	2	06/26/24	06/26/24	
Toluene	ND	0.0500	2	06/26/24	06/26/24	
o-Xylene	ND	0.0500	2	06/26/24	06/26/24	
p,m-Xylene	ND	0.100	2	06/26/24	06/26/24	
Total Xylenes	ND	0.0500	2	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.2 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	40.0	2	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*108 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**149**	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SW. 4-2'

E406232-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*92.7 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*105 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*99.5 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**59.1**	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SW. 5-2'

E406232-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*92.7 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*105 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*100 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	ND	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SW. 6-6'

E406232-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/26/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/26/24	
Toluene	ND	0.0250	1	06/26/24	06/26/24	
o-Xylene	ND	0.0250	1	06/26/24	06/26/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/26/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/26/24	
Surrogate: 4-Bromochlorobenzene-PID		*92.3 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*105 %*	*70-130*	*06/26/24*	*06/26/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*102 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	**57.9**	20.0	1	06/26/24	06/26/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

SW. 7-4

E406232-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Benzene	ND	0.0250	1	06/26/24	06/27/24	
Ethylbenzene	ND	0.0250	1	06/26/24	06/27/24	
Toluene	ND	0.0250	1	06/26/24	06/27/24	
o-Xylene	ND	0.0250	1	06/26/24	06/27/24	
p,m-Xylene	ND	0.0500	1	06/26/24	06/27/24	
Total Xylenes	ND	0.0250	1	06/26/24	06/27/24	
Surrogate: 4-Bromochlorobenzene-PID		*93.0 %*	*70-130*	*06/26/24*	*06/27/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426036
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/26/24	06/27/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*	*70-130*	*06/26/24*	*06/27/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2426034
Diesel Range Organics (C10-C28)	ND	25.0	1	06/26/24	06/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/26/24	06/26/24	
Surrogate: n-Nonane		*110 %*	*50-200*	*06/26/24*	*06/26/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426038
Chloride	ND	20.0	1	06/26/24	06/26/24	

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

Volatile Organics by EPA 8021B

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 (2426036-BLK1)									Prepared: 06/26/24 Analyzed: 06/26/24
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	*7.25*		*8.00*		*90.6*	*70-130*			
LCS (2426036-BS1)									Prepared: 06/26/24 Analyzed: 06/26/24
Benzene	5.27	0.0250	5.00		105	70-130			
Ethylbenzene	4.95	0.0250	5.00		99.0	70-130			
Toluene	5.19	0.0250	5.00		104	70-130			
o-Xylene	5.06	0.0250	5.00		101	70-130			
p,m-Xylene	10.2	0.0500	10.0		102	70-130			
Total Xylenes	15.3	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.45*		*8.00*		*93.1*	*70-130*			
Matrix Spike (2426036-MS1)				**Source: E406232-07**					Prepared: 06/26/24 Analyzed: 06/26/24
Benzene	10.9	0.0500	10.0	ND	109	54-133			
Ethylbenzene	10.3	0.0500	10.0	ND	103	61-133			
Toluene	10.7	0.0500	10.0	ND	107	61-130			
o-Xylene	10.5	0.0500	10.0	ND	105	63-131			
p,m-Xylene	21.1	0.100	20.0	ND	106	63-131			
Total Xylenes	31.6	0.0500	30.0	ND	105	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*15.1*		*16.0*		*94.3*	*70-130*			
Matrix Spike Dup (2426036-MSD1)				**Source: E406232-07**					Prepared: 06/26/24 Analyzed: 06/26/24
Benzene	10.4	0.0500	10.0	ND	104	54-133	4.70	20	
Ethylbenzene	9.76	0.0500	10.0	ND	97.6	61-133	4.97	20	
Toluene	10.2	0.0500	10.0	ND	102	61-130	4.91	20	
o-Xylene	10.0	0.0500	10.0	ND	100	63-131	4.78	20	
p,m-Xylene	20.1	0.100	20.0	ND	101	63-131	4.89	20	
Total Xylenes	30.1	0.0500	30.0	ND	100	63-131	4.85	20	
Surrogate: 4-Bromochlorobenzene-PID	*15.0*		*16.0*		*94.1*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

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 (2426036-BLK1)									Prepared: 06/26/24 Analyzed: 06/26/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.37*		*8.00*		*105*	*70-130*			
LCS (2426036-BS2)									Prepared: 06/26/24 Analyzed: 06/26/24
Gasoline Range Organics (C6-C10)	50.3	20.0	50.0		101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.48*		*8.00*		*106*	*70-130*			
Matrix Spike (2426036-MS2)				**Source: E406232-07**					Prepared: 06/26/24 Analyzed: 06/26/24
Gasoline Range Organics (C6-C10)	102	40.0	100	ND	102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*16.9*		*16.0*		*106*	*70-130*			
Matrix Spike Dup (2426036-MSD2)				**Source: E406232-07**					Prepared: 06/26/24 Analyzed: 06/26/24
Gasoline Range Organics (C6-C10)	104	40.0	100	ND	104	70-130	2.32	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*16.8*		*16.0*		*105*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2426034-BLK1)									Prepared: 06/26/24 Analyzed: 06/26/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*53.6*		*50.0*		*107*	*50-200*			
LCS (2426034-BS1)									Prepared: 06/26/24 Analyzed: 06/27/24
Diesel Range Organics (C10-C28)	305	25.0	250		122	38-132			
Surrogate: n-Nonane	*54.2*		*50.0*		*108*	*50-200*			
Matrix Spike (2426034-MS1)				**Source: E406232-05**					Prepared: 06/26/24 Analyzed: 06/27/24
Diesel Range Organics (C10-C28)	315	25.0	250	ND	126	38-132			
Surrogate: n-Nonane	*54.2*		*50.0*		*108*	*50-200*			
Matrix Spike Dup (2426034-MSD1)				**Source: E406232-05**					Prepared: 06/26/24 Analyzed: 06/27/24
Diesel Range Organics (C10-C28)	325	25.0	250	ND	130	38-132	3.13	20	
Surrogate: n-Nonane	*54.5*		*50.0*		*109*	*50-200*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2024 4:44:50PM

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 (2426038-BLK1)									Prepared: 06/26/24 Analyzed: 06/26/24
Chloride	ND	20.0							
LCS (2426038-BS1)									Prepared: 06/26/24 Analyzed: 06/26/24
Chloride	249	20.0	250		99.5	90-110			
Matrix Spike (2426038-MS1)				**Source: E406232-02**					Prepared: 06/26/24 Analyzed: 06/26/24
Chloride	451	20.0	250	200	100	80-120			
Matrix Spike Dup (2426038-MSD1)				**Source: E406232-02**					Prepared: 06/26/24 Analyzed: 06/26/24
Chloride	454	20.0	250	200	102	80-120	0.604	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 (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/27/24 16:44

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 2

Client:	Mack Energy (E)
Project:	West Mount (E)
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# E406232 | Job Number 20046-0001

TAT

1D | 2D ✓ | 3D | Standard

EPA Program

CWA | SDWA | RCRA

State

NM ✓ | CO | UT | AZ | TX

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	Remarks
	06/24	S	1	SP. 1-4'	1							✓		
	06/24	S	1	SP. 2-6'	2							✓		
	06/24	S	1	SP. 3-6'	3							✓		
	06/24	S	1	SP. 4-8'	4							✓		
	06/24	S	1	SW. 1-2'	5							✓		
	06/24	S	1	SW. 2-2'	6							✓		
	06/24	S	1	SW. 3-2'	7							✓		
	06/24	S	1	SW. 4-2'	8							✓		
	06/24	S	1	SW. 5-2'	9									
	06/24	S	1	SW. 6-6'	10									

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: Sandra Perez

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
S. Perez	06/24/24	1730		6.25.24	1730
	6.25.24	1538		6.25.24	1200
	6.25.24	2315		6.26.24	0600

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

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

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

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Project Information | Chain of Custody | Page 2 of 2

Client:	Mack Energy
Project:	West Mount (E)
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# E406232 | Job Number 20046-0001

TAT: 1D | 2D ✓ | 3D | Standard

EPA Program: CWA | SDWA | RCRA

State: NM ✓ | CO | UT | AZ | TX

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	Remarks
	06/24	S	1	SW 7-4	11							✓		

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: Sandra Perez

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
S. Perez	06/24/24	1230		6.25.24	1230
	6.25.24	1530		6.25.24	1700
A. M.	6.25.24	2315	Kayla L Hall	6-26-24	0600

Lab Use Only
Received on ice: Y / N
T1 T2 T3
AVG Temp °C 4

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

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

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Envirotech Analytical Laboratory

Printed: 6/27/2024 7:40:16AM

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:	06/26/24 06:00	Work Order ID:	E406232
Phone:	(575) 390-6397	Date Logged In:	06/25/24 16:08	Logged In By:	Raina Schwanz
Email:	Natalie@energystaffingllc.com	Due Date:	06/27/24 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	Carrier: Couier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	No	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

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 Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
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 filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Comments/Resolution

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

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 (E)
Work Order:	E406247
Job Number:	20046-0001
Received:	6/27/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
6/28/24

Date Reported: 6/28/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount (E)
Workorder: E406247
Date Received: 6/27/2024 5:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/27/2024 5:30:00AM, under the Project Name: West Mount (E).

The analytical test results summarized in this report with the Project Name: West Mount (E) 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 reguarding 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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Lynn Jarboe
Laboratory Technical Representative
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Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
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Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/28/24 13:54

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW 6- Surf	E406247-01A	Soil	06/25/24	06/27/24	Glass Jar, 2 oz.
SW 7- Surf	E406247-02A	Soil	06/25/24	06/27/24	Glass Jar, 2 oz.

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/28/2024 1:54:33PM

SW 6- Surf

E406247-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426055
Benzene	ND	0.0250	1	06/27/24	06/27/24	
Ethylbenzene	ND	0.0250	1	06/27/24	06/27/24	
Toluene	ND	0.0250	1	06/27/24	06/27/24	
o-Xylene	ND	0.0250	1	06/27/24	06/27/24	
p,m-Xylene	ND	0.0500	1	06/27/24	06/27/24	
Total Xylenes	ND	0.0250	1	06/27/24	06/27/24	
Surrogate: Bromofluorobenzene		*93.6 %*	*70-130*	*06/27/24*	*06/27/24*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*06/27/24*	*06/27/24*	
Surrogate: Toluene-d8		*95.5 %*	*70-130*	*06/27/24*	*06/27/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426055
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/27/24	06/27/24	
Surrogate: Bromofluorobenzene		*93.6 %*	*70-130*	*06/27/24*	*06/27/24*	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*70-130*	*06/27/24*	*06/27/24*	
Surrogate: Toluene-d8		*95.5 %*	*70-130*	*06/27/24*	*06/27/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2426064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/27/24	06/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/27/24	06/28/24	
Surrogate: n-Nonane		*73.0 %*	*50-200*	*06/27/24*	*06/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426065
Chloride	**52.2**	20.0	1	06/27/24	06/27/24	

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/28/2024 1:54:33PM

SW 7- Surf

E406247-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS			Batch: 2426055
Benzene	ND	0.0250	1	06/27/24	06/27/24	
Ethylbenzene	ND	0.0250	1	06/27/24	06/27/24	
Toluene	ND	0.0250	1	06/27/24	06/27/24	
o-Xylene	ND	0.0250	1	06/27/24	06/27/24	
p,m-Xylene	ND	0.0500	1	06/27/24	06/27/24	
Total Xylenes	ND	0.0250	1	06/27/24	06/27/24	
Surrogate: Bromofluorobenzene		*92.9 %*	*70-130*	*06/27/24*	*06/27/24*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*06/27/24*	*06/27/24*	
Surrogate: Toluene-d8		*95.6 %*	*70-130*	*06/27/24*	*06/27/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2426055
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/27/24	06/27/24	
Surrogate: Bromofluorobenzene		*92.9 %*	*70-130*	*06/27/24*	*06/27/24*	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*70-130*	*06/27/24*	*06/27/24*	
Surrogate: Toluene-d8		*95.6 %*	*70-130*	*06/27/24*	*06/27/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2426064
Diesel Range Organics (C10-C28)	ND	25.0	1	06/27/24	06/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/27/24	06/28/24	
Surrogate: n-Nonane		*83.4 %*	*50-200*	*06/27/24*	*06/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM			Batch: 2426065
Chloride	**49.1**	20.0	1	06/27/24	06/27/24	

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/28/2024 1:54:33PM

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 (2426055-BLK1)									Prepared: 06/27/24 Analyzed: 06/27/24
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	*0.469*		*0.500*		*93.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*0.478*		*0.500*		*95.6*	*70-130*			
LCS (2426055-BS1)									Prepared: 06/27/24 Analyzed: 06/27/24
Benzene	2.37	0.0250	2.50		94.9	70-130			
Ethylbenzene	2.51	0.0250	2.50		100	70-130			
Toluene	2.34	0.0250	2.50		93.8	70-130			
o-Xylene	2.43	0.0250	2.50		97.1	70-130			
p,m-Xylene	4.79	0.0500	5.00		95.9	70-130			
Total Xylenes	7.22	0.0250	7.50		96.3	70-130			
Surrogate: Bromofluorobenzene	*0.470*		*0.500*		*93.9*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.482*		*0.500*		*96.4*	*70-130*			
Surrogate: Toluene-d8	*0.488*		*0.500*		*97.5*	*70-130*			
Matrix Spike (2426055-MS1)				**Source: E406240-24**					Prepared: 06/27/24 Analyzed: 06/27/24
Benzene	2.36	0.0250	2.50	ND	94.5	48-131			
Ethylbenzene	2.47	0.0250	2.50	ND	98.9	45-135			
Toluene	2.32	0.0250	2.50	ND	92.9	48-130			
o-Xylene	2.43	0.0250	2.50	ND	97.2	43-135			
p,m-Xylene	4.77	0.0500	5.00	ND	95.5	43-135			
Total Xylenes	7.21	0.0250	7.50	ND	96.1	43-135			
Surrogate: Bromofluorobenzene	*0.474*		*0.500*		*94.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.484*		*0.500*		*96.7*	*70-130*			
Surrogate: Toluene-d8	*0.482*		*0.500*		*96.4*	*70-130*			
Matrix Spike Dup (2426055-MSD1)				**Source: E406240-24**					Prepared: 06/27/24 Analyzed: 06/27/24
Benzene	2.31	0.0250	2.50	ND	92.4	48-131	2.31	23	
Ethylbenzene	2.44	0.0250	2.50	ND	97.8	45-135	1.16	27	
Toluene	2.29	0.0250	2.50	ND	91.5	48-130	1.50	24	
o-Xylene	2.45	0.0250	2.50	ND	98.0	43-135	0.799	27	
p,m-Xylene	4.80	0.0500	5.00	ND	95.9	43-135	0.460	27	
Total Xylenes	7.25	0.0250	7.50	ND	96.6	43-135	0.574	27	
Surrogate: Bromofluorobenzene	*0.484*		*0.500*		*96.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.478*		*0.500*		*95.5*	*70-130*			
Surrogate: Toluene-d8	*0.487*		*0.500*		*97.3*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/28/2024 1:54:33PM

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 (2426055-BLK1)									Prepared: 06/27/24 Analyzed: 06/27/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.469*		*0.500*		*93.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.496*		*0.500*		*99.2*	*70-130*			
Surrogate: Toluene-d8	*0.478*		*0.500*		*95.6*	*70-130*			
LCS (2426055-BS2)									Prepared: 06/27/24 Analyzed: 06/27/24
Gasoline Range Organics (C6-C10)	44.7	20.0	50.0		89.3	70-130			
Surrogate: Bromofluorobenzene	*0.481*		*0.500*		*96.1*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.482*		*0.500*		*96.4*	*70-130*			
Surrogate: Toluene-d8	*0.492*		*0.500*		*98.3*	*70-130*			
Matrix Spike (2426055-MS2)				**Source: E406240-24**					Prepared: 06/27/24 Analyzed: 06/27/24
Gasoline Range Organics (C6-C10)	44.6	20.0	50.0	ND	89.2	70-130			
Surrogate: Bromofluorobenzene	*0.477*		*0.500*		*95.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.465*		*0.500*		*93.0*	*70-130*			
Surrogate: Toluene-d8	*0.483*		*0.500*		*96.5*	*70-130*			
Matrix Spike Dup (2426055-MSD2)				**Source: E406240-24**					Prepared: 06/27/24 Analyzed: 06/27/24
Gasoline Range Organics (C6-C10)	44.1	20.0	50.0	ND	88.3	70-130	1.00	20	
Surrogate: Bromofluorobenzene	*0.477*		*0.500*		*95.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.494*		*0.500*		*98.8*	*70-130*			
Surrogate: Toluene-d8	*0.485*		*0.500*		*96.9*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/28/2024 1:54:33PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2426064-BLK1)									Prepared: 06/27/24 Analyzed: 06/27/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*46.9*		*50.0*		*93.7*	*50-200*			
LCS (2426064-BS1)									Prepared: 06/27/24 Analyzed: 06/27/24
Diesel Range Organics (C10-C28)	260	25.0	250		104	38-132			
Surrogate: n-Nonane	*49.7*		*50.0*		*99.3*	*50-200*			
Matrix Spike (2426064-MS1)				**Source: E406243-09**					Prepared: 06/27/24 Analyzed: 06/27/24
Diesel Range Organics (C10-C28)	264	25.0	250	ND	105	38-132			
Surrogate: n-Nonane	*50.6*		*50.0*		*101*	*50-200*			
Matrix Spike Dup (2426064-MSD1)				**Source: E406243-09**					Prepared: 06/27/24 Analyzed: 06/27/24
Diesel Range Organics (C10-C28)	254	25.0	250	ND	102	38-132	3.69	20	
Surrogate: n-Nonane	*47.9*		*50.0*		*95.8*	*50-200*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/28/2024 1:54:33PM

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 (2426065-BLK1)									Prepared: 06/27/24 Analyzed: 06/27/24
Chloride	ND	20.0							
LCS (2426065-BS1)									Prepared: 06/27/24 Analyzed: 06/27/24
Chloride	249	20.0	250		99.6	90-110			
Matrix Spike (2426065-MS1)				**Source: E406248-01**					Prepared: 06/27/24 Analyzed: 06/27/24
Chloride	309	20.0	250	55.8	101	80-120			
Matrix Spike Dup (2426065-MSD1)				**Source: E406248-01**					Prepared: 06/27/24 Analyzed: 06/27/24
Chloride	310	20.0	250	55.8	102	80-120	0.183	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 (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/28/24 13:54

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:	Mack Energy's
Project:	West Maust E
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# E406247

Job Number 20046-0001

TAT: 1D | 2D / | 3D | Standard

EPA Program: CWA | SDWA | RCRA

State: NM / | CO | UT | AZ | TX

Analysis and Method: DRO/ORO by 8015 | GRO/DRO by 8015 | BTEX by 8021 | VOC by 8260 | Metals 6010 | Chloride 300.0 | BGDOC NM / | BGDOC TX

Time Sampled	Date Sampled	Matrix	No of Containers	Sample ID	Lab Number	Remarks
	6/25/24	S	1	SW 6-Surf	1	
	1	S	1	SW 7-Surf	2	

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: M. Rivera

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
	6/25/24		Michelle Gonzales	6-26-24	1335
Michelle Gonzales	6-26-24	1630	Andrew Mabe	6-26-24	1645
Andrew Mabe	6-26-24	2245	Krystal R Hall	6-27-24	0530

Lab Use Only

Received on ice: (Y) / N

T1 T2 T3

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

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

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

Envirotech Analytical Laboratory

Printed: 6/27/2024 12:54:04PM

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:	06/27/24 05:30	Work Order ID:	E406247
Phone:	(575) 390-6397	Date Logged In:	06/27/24 05:30	Logged In By:	Keyliegh Hall
Email:	Natalie@energystaffingllc.com	Due Date:	06/28/24 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	Carrier: Couier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	No	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

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

Comments/Resolution

Project manager and time sampled not on COC.

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 (E)
Work Order:	E407009
Job Number:	20046-0001
Received:	7/3/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/8/24

Date Reported: 7/8/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount (E)
Workorder: E407009
Date Received: 7/3/2024 10:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/3/2024 10:00:00AM, under the Project Name: West Mount (E).

The analytical test results summarized in this report with the Project Name: West Mount (E) 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 reguarding 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

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Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
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Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	07/08/24 13:58

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW2-4'	E407009-01A	Soil	07/01/24	07/03/24	Glass Jar, 2 oz.

Sample Data

Mack Energy	Project Name:	West Mount (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/8/2024 1:58:02PM

SW2-4'

E407009-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2427028
Benzene	ND	0.0250	1	07/03/24	07/03/24	
Ethylbenzene	ND	0.0250	1	07/03/24	07/03/24	
Toluene	ND	0.0250	1	07/03/24	07/03/24	
o-Xylene	ND	0.0250	1	07/03/24	07/03/24	
p,m-Xylene	ND	0.0500	1	07/03/24	07/03/24	
Total Xylenes	ND	0.0250	1	07/03/24	07/03/24	
Surrogate: 4-Bromochlorobenzene-PID		*95.3 %*	*70-130*	*07/03/24*	*07/03/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2427028
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/03/24	07/03/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*95.8 %*	*70-130*	*07/03/24*	*07/03/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2427036
Diesel Range Organics (C10-C28)	ND	25.0	1	07/03/24	07/03/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/03/24	07/03/24	
Surrogate: n-Nonane		*101 %*	*50-200*	*07/03/24*	*07/03/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2427032
Chloride	**58.8**	20.0	1	07/03/24	07/03/24	

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/8/2024 1:58:02PM

Volatile Organics by EPA 8021B

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 (2427028-BLK1)									Prepared: 07/03/24 Analyzed: 07/03/24
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	*7.51*		*8.00*		*93.9*	*70-130*			
LCS (2427028-BS1)									Prepared: 07/03/24 Analyzed: 07/03/24
Benzene	4.61	0.0250	5.00		92.3	70-130			
Ethylbenzene	4.73	0.0250	5.00		94.6	70-130			
Toluene	4.75	0.0250	5.00		95.1	70-130			
o-Xylene	4.74	0.0250	5.00		94.7	70-130			
p,m-Xylene	9.61	0.0500	10.0		96.1	70-130			
Total Xylenes	14.3	0.0250	15.0		95.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.55*		*8.00*		*94.4*	*70-130*			
Matrix Spike (2427028-MS1)				**Source: E407011-04**					Prepared: 07/03/24 Analyzed: 07/03/24
Benzene	8.66	0.0500	10.0	ND	86.6	54-133			
Ethylbenzene	8.89	0.0500	10.0	ND	88.9	61-133			
Toluene	8.92	0.0500	10.0	ND	89.2	61-130			
o-Xylene	8.92	0.0500	10.0	ND	89.2	63-131			
p,m-Xylene	18.1	0.100	20.0	ND	90.3	63-131			
Total Xylenes	27.0	0.0500	30.0	ND	89.9	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*14.9*		*16.0*		*93.4*	*70-130*			
Matrix Spike Dup (2427028-MSD1)				**Source: E407011-04**					Prepared: 07/03/24 Analyzed: 07/03/24
Benzene	8.72	0.0500	10.0	ND	87.2	54-133	0.741	20	
Ethylbenzene	8.96	0.0500	10.0	ND	89.6	61-133	0.842	20	
Toluene	9.00	0.0500	10.0	ND	89.9	61-130	0.854	20	
o-Xylene	9.01	0.0500	10.0	ND	90.1	63-131	1.07	20	
p,m-Xylene	18.2	0.100	20.0	ND	91.2	63-131	1.02	20	
Total Xylenes	27.3	0.0500	30.0	ND	90.9	63-131	1.04	20	
Surrogate: 4-Bromochlorobenzene-PID	*15.1*		*16.0*		*94.6*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/8/2024 1:58:02PM

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 (2427028-BLK1)									Prepared: 07/03/24 Analyzed: 07/03/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.58*		*8.00*		*94.8*	*70-130*			
LCS (2427028-BS2)									Prepared: 07/03/24 Analyzed: 07/03/24
Gasoline Range Organics (C6-C10)	48.7	20.0	50.0		97.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.70*		*8.00*		*96.3*	*70-130*			
Matrix Spike (2427028-MS2)				**Source: E407011-04**					Prepared: 07/03/24 Analyzed: 07/03/24
Gasoline Range Organics (C6-C10)	96.2	40.0	100	ND	96.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*15.2*		*16.0*		*95.0*	*70-130*			
Matrix Spike Dup (2427028-MSD2)				**Source: E407011-04**					Prepared: 07/03/24 Analyzed: 07/03/24
Gasoline Range Organics (C6-C10)	91.8	40.0	100	ND	91.8	70-130	4.65	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*15.3*		*16.0*		*95.8*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/8/2024 1:58:02PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2427036-BLK1)									Prepared: 07/03/24 Analyzed: 07/03/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*49.2*		*50.0*		*98.5*	*50-200*			
LCS (2427036-BS1)									Prepared: 07/03/24 Analyzed: 07/03/24
Diesel Range Organics (C10-C28)	301	25.0	250		120	38-132			
Surrogate: n-Nonane	*50.8*		*50.0*		*102*	*50-200*			
Matrix Spike (2427036-MS1)				**Source: E407011-02**					Prepared: 07/03/24 Analyzed: 07/03/24
Diesel Range Organics (C10-C28)	307	25.0	250	ND	123	38-132			
Surrogate: n-Nonane	*51.6*		*50.0*		*103*	*50-200*			
Matrix Spike Dup (2427036-MSD1)				**Source: E407011-02**					Prepared: 07/03/24 Analyzed: 07/03/24
Diesel Range Organics (C10-C28)	317	25.0	250	ND	127	38-132	3.37	20	
Surrogate: n-Nonane	*52.4*		*50.0*		*105*	*50-200*			

QC Summary Data

Mack Energy	Project Name:	West Mount (E)	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/8/2024 1:58:02PM

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
Blank (2427032-BLK1)									Prepared: 07/03/24 Analyzed: 07/03/24
Chloride	ND	20.0							
LCS (2427032-BS1)									Prepared: 07/03/24 Analyzed: 07/03/24
Chloride	256	20.0	250		102	90-110			
Matrix Spike (2427032-MS1)				**Source: E407009-01**					Prepared: 07/03/24 Analyzed: 07/03/24
Chloride	316	20.0	250	58.8	103	80-120			
Matrix Spike Dup (2427032-MSD1)				**Source: E407009-01**					Prepared: 07/03/24 Analyzed: 07/03/24
Chloride	316	20.0	250	58.8	103	80-120	0.0810	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 (E)	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	07/08/24 13:58

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:	MACK ENERGY
Project:	WEST MOUNT E
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# E407009 | Job Number 20046-0001

TAT: 1D | 2D (X) | 3D | Standard

EPA Program: CWA | SDWA | RCRA

State: NM (X) | CO | UT | AZ | TX

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			Remarks
	7/01/24	S	1	SW2-4'	1									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: M. RIVERA

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
	7/01/24		Michelle Gonzales	7-2-24	1405
Michelle Gonzales	7-2-24	1615		7.2.24	1700
	7.2.24	2345	Alexa Michaels	7/3/24	1000

Lab Use Only
Received on ice: (Y) N
T1 T2 T3
AVG Temp °C 4

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

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

envirotech

Envirotech Analytical Laboratory

Printed: 7/3/2024 11:16:07AM

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:	07/03/24 10:00	Work Order ID:	E407009
Phone:	(575) 390-6397	Date Logged In:	07/02/24 14:57	Logged In By:	Alexa Michaels
Email:	Natalie@energystaffingllc.com	Due Date:	07/08/24 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	Carrier: Couier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	No	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

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 Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
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 filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Comments/Resolution

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

Client Instruction

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

Date

envirotech Inc.

MACK ENERGY: WEST MOUNT SPILL E
DELINEATION SITE PHOTOS


6/24/2024 14:27
+32.996132,-104.070572
Altitude:1139.9meter
Speed:0.1km/h
Mack Energy
West Mount E
Delineation


ESS
6/24/2024 14:27
+32.996132,-104.070572
Altitude:1140.1meter
Speed:0.2km/h
Mack Energy
West Mount E
Delineation


DEERE
6/24/2024 13:31
+32.995987,-104.070773
Altitude:1140.3meter
Speed:0.1km/h
Mack Energy


6/24/2024 13:30
+32.995987,-104.070773
Altitude:1140.3meter
Speed:0.1km/h
Mack Energy


DEERE
6/24/2024 13:28
+32.995987,-104.070773
Altitude:1141.1meter
Speed:0.3km/h
Mack Energy

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Monday, August 19, 2024 2:48 PM
To: Natalie Gladden <natalie@energystaffingllc.com>
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 375253

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#) nAPP2329156011.

The sampling event is expected to take place:

When: 08/21/2024 @ 07:00
Where: N-19-15S-29E 0 FNL 0 FEL (32.9955899,-104.07048)

Additional Information: CONTACT NATALIE GLADDEN 575-390-6397

Additional Instructions: CONTACT NATALIE GLADDEN 575-390-6397

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: MACK ENERGY **Location:** WEST MOUNT SPILL E **Release Date:**

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL	Soil	Notes
COMP1	6	240	L	ND	ND	ND	ND	ND	128		
COMP2	6	240	L	ND	ND	ND	ND	ND	213		
COMP3	6	400	L	ND	ND	ND	ND	ND	484		
COMP4	6	400	L	ND	ND	ND	ND	ND	476		
COMP5	6	240	L	ND	ND	ND	ND	ND	127		
COMP6	6	400	L	ND	ND	ND	ND	ND	277		
COMP7	6	240	L	ND	ND	ND	ND	ND	111		
COMP8	6	400	L	ND	ND	ND	ND	ND	271		
SWCOMP1	6	160	L	ND	ND	ND	ND	ND	70.2		
SWCOMP2	6	240	L	ND	ND	ND	ND	ND	110		
SWCOMP3	6	320	L	ND	ND	ND	ND	ND	212		
SWCOMP4	6	320	L	ND	ND	ND	ND	ND	207		
SWCOMP5	6	240	L	ND	ND	ND	ND	ND	109		

Mack Energy

Composite Map
West Mount Spill E

Legend

- Side Wall Composite
- Composite

SWC3
C1
C2
C3
C4
SWC2
SWC4
C5
C6
C7
SWC5
C8
SWC1

Google Earth

10 ft

CLIENTS: MACK ENERGY

LOCATION: WEST MOUNT SPILL E

SAMPLE ID	LAT	LONG
C1	32.995938°	-104.070554°
C2	32.995914°	-104.070565°
C3	32.995891°	-104.070607°
C4	32.995877°	-104.070565°
C5	32.995846°	-104.070608°
C6	32.995836°	-104.070575°
C7	32.995797°	-104.070580°
C8	32.995804°	-104.070639°
SWC1	32.995786°	-104.070640°
SWC2	32.995887°	-104.070635°
SWC3	32.995960°	-104.070562°
SWC4	32.995856°	-104.070541°
SWC5	32.995789°	-104.070549°

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 E

Work Order: E408237

Job Number: 20046-0001

Received: 8/28/2024

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/29/24

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: 8/29/24

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount E
Workorder: E408237
Date Received: 8/28/2024 7:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/28/2024 7:00:00AM, under the Project Name: West Mount E.

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

Southern New Mexico Area

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Office: 505-421-LABS(5227)
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ljarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Mack Energy	Project Name:	West Mount E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	08/29/24 14:46

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SP. Comp. 1-6'	E408237-01A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SP. Comp. 2-6'	E408237-02A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SP. Comp. 3-6'	E408237-03A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SP. Comp. 4-6'	E408237-04A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SP. Comp. 5-6'	E408237-05A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SP. Comp. 6-6'	E408237-06A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SP. Comp. 7-6'	E408237-07A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SP. Comp. 8-6'	E408237-08A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SW. Comp. 1-6'	E408237-09A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SW. Comp. 2-6'	E408237-10A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SW. Comp. 3-6'	E408237-11A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SW. Comp. 4-6'	E408237-12A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.
SW. Comp. 5-6'	E408237-13A	Soil	08/26/24	08/28/24	Glass Jar, 2 oz.

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SP. Comp. 1-6'

E408237-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/28/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/28/24	
Toluene	ND	0.0250	1	08/28/24	08/28/24	
o-Xylene	ND	0.0250	1	08/28/24	08/28/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/28/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/28/24	
Surrogate: 4-Bromochlorobenzene-PID		*90.4 %*	*70-130*	*08/28/24*	*08/28/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/28/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.3 %*	*70-130*	*08/28/24*	*08/28/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*96.6 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**128**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SP. Comp. 2-6'

E408237-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/28/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/28/24	
Toluene	ND	0.0250	1	08/28/24	08/28/24	
o-Xylene	ND	0.0250	1	08/28/24	08/28/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/28/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/28/24	
Surrogate: 4-Bromochlorobenzene-PID		*91.0 %*	*70-130*	*08/28/24*	*08/28/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/28/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.3 %*	*70-130*	*08/28/24*	*08/28/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*97.9 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**213**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SP. Comp. 3-6'

E408237-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*90.8 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.2 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*94.3 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**484**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SP. Comp. 4-6'

E408237-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*90.2 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.1 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*94.0 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**476**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SP. Comp. 5-6'

E408237-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/28/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/28/24	
Toluene	ND	0.0250	1	08/28/24	08/28/24	
o-Xylene	ND	0.0250	1	08/28/24	08/28/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/28/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/28/24	
Surrogate: 4-Bromochlorobenzene-PID		*90.2 %*	*70-130*	*08/28/24*	*08/28/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/28/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.0 %*	*70-130*	*08/28/24*	*08/28/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*99.9 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**127**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SP. Comp. 6-6'

E408237-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*90.4 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.1 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*97.5 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**277**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SP. Comp. 7-6'

E408237-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*91.6 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.2 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*102 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**111**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SP. Comp. 8-6'

E408237-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0500	2	08/28/24	08/29/24	
Ethylbenzene	ND	0.0500	2	08/28/24	08/29/24	
Toluene	ND	0.0500	2	08/28/24	08/29/24	
o-Xylene	ND	0.0500	2	08/28/24	08/29/24	
p,m-Xylene	ND	0.100	2	08/28/24	08/29/24	
Total Xylenes	ND	0.0500	2	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*90.9 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	40.0	2	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*94.0 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*100 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**271**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SW. Comp. 1-6'

E408237-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*91.3 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.6 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/28/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/28/24	
Surrogate: n-Nonane		*99.8 %*	*50-200*	*08/28/24*	*08/28/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**70.2**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SW. Comp. 2-6'

E408237-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*91.3 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.4 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/29/24	
Surrogate: n-Nonane		*98.7 %*	*50-200*	*08/28/24*	*08/29/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**110**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SW. Comp. 3-6'

E408237-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*91.7 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.3 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/29/24	
Surrogate: n-Nonane		*101 %*	*50-200*	*08/28/24*	*08/29/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**212**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SW. Comp. 4-6'

E408237-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*90.8 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*91.4 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/29/24	
Surrogate: n-Nonane		*96.8 %*	*50-200*	*08/28/24*	*08/29/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**207**	20.0	1	08/28/24	08/28/24	

Sample Data

Mack Energy	Project Name:	West Mount E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

SW. Comp. 5-6'

E408237-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Benzene	ND	0.0250	1	08/28/24	08/29/24	
Ethylbenzene	ND	0.0250	1	08/28/24	08/29/24	
Toluene	ND	0.0250	1	08/28/24	08/29/24	
o-Xylene	ND	0.0250	1	08/28/24	08/29/24	
p,m-Xylene	ND	0.0500	1	08/28/24	08/29/24	
Total Xylenes	ND	0.0250	1	08/28/24	08/29/24	
Surrogate: 4-Bromochlorobenzene-PID		*90.9 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG			Batch: 2435075
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/24	08/29/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.2 %*	*70-130*	*08/28/24*	*08/29/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2435069
Diesel Range Organics (C10-C28)	ND	25.0	1	08/28/24	08/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/28/24	08/29/24	
Surrogate: n-Nonane		*104 %*	*50-200*	*08/28/24*	*08/29/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2435072
Chloride	**109**	20.0	1	08/28/24	08/29/24	

QC Summary Data

Mack Energy	Project Name:	West Mount E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

Volatile Organics by EPA 8021B

Analyst: CG

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2435075-BLK1)									Prepared: 08/28/24 Analyzed: 08/28/24
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	*7.25*		*8.00*		*90.6*	*70-130*			
LCS (2435075-BS1)									Prepared: 08/28/24 Analyzed: 08/28/24
Benzene	5.36	0.0250	5.00		107	70-130			
Ethylbenzene	5.14	0.0250	5.00		103	70-130			
Toluene	5.26	0.0250	5.00		105	70-130			
o-Xylene	5.12	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.6	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.29*		*8.00*		*91.1*	*70-130*			
Matrix Spike (2435075-MS1)				**Source: E408237-05**					Prepared: 08/28/24 Analyzed: 08/28/24
Benzene	5.26	0.0250	5.00	ND	105	54-133			
Ethylbenzene	5.04	0.0250	5.00	ND	101	61-133			
Toluene	5.17	0.0250	5.00	ND	103	61-130			
o-Xylene	5.01	0.0250	5.00	ND	100	63-131			
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131			
Total Xylenes	15.3	0.0250	15.0	ND	102	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.20*		*8.00*		*90.0*	*70-130*			
Matrix Spike Dup (2435075-MSD1)				**Source: E408237-05**					Prepared: 08/28/24 Analyzed: 08/28/24
Benzene	5.21	0.0250	5.00	ND	104	54-133	0.939	20	
Ethylbenzene	4.99	0.0250	5.00	ND	99.8	61-133	1.04	20	
Toluene	5.12	0.0250	5.00	ND	102	61-130	1.02	20	
o-Xylene	4.97	0.0250	5.00	ND	99.4	63-131	0.830	20	
p,m-Xylene	10.1	0.0500	10.0	ND	101	63-131	1.18	20	
Total Xylenes	15.1	0.0250	15.0	ND	101	63-131	1.07	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.18*		*8.00*		*89.7*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2435075-BLK1)									Prepared: 08/28/24 Analyzed: 08/28/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.27*		*8.00*		*90.8*	*70-130*			
LCS (2435075-BS2)									Prepared: 08/28/24 Analyzed: 08/28/24
Gasoline Range Organics (C6-C10)	43.0	20.0	50.0		85.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.45*		*8.00*		*93.1*	*70-130*			
Matrix Spike (2435075-MS2)				**Source: E408237-05**					Prepared: 08/28/24 Analyzed: 08/28/24
Gasoline Range Organics (C6-C10)	46.5	20.0	50.0	ND	93.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.54*		*8.00*		*94.3*	*70-130*			
Matrix Spike Dup (2435075-MSD2)				**Source: E408237-05**					Prepared: 08/28/24 Analyzed: 08/28/24
Gasoline Range Organics (C6-C10)	45.1	20.0	50.0	ND	90.2	70-130	3.10	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.48*		*8.00*		*93.5*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2435069-BLK1)									Prepared: 08/28/24 Analyzed: 08/28/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.3*		*50.0*		*94.5*	*50-200*			
LCS (2435069-BS1)									Prepared: 08/28/24 Analyzed: 08/28/24
Diesel Range Organics (C10-C28)	216	25.0	250		86.4	38-132			
Surrogate: n-Nonane	*48.7*		*50.0*		*97.4*	*50-200*			
Matrix Spike (2435069-MS1)				**Source: E408237-04**					Prepared: 08/28/24 Analyzed: 08/28/24
Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.2	38-132			
Surrogate: n-Nonane	*50.4*		*50.0*		*101*	*50-200*			
Matrix Spike Dup (2435069-MSD1)				**Source: E408237-04**					Prepared: 08/28/24 Analyzed: 08/28/24
Diesel Range Organics (C10-C28)	217	25.0	250	ND	86.6	38-132	6.30	20	
Surrogate: n-Nonane	*48.0*		*50.0*		*95.9*	*50-200*			

QC Summary Data

Mack Energy	Project Name:	West Mount E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	8/29/2024 2:46:22PM

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 (2435072-BLK1)									Prepared: 08/28/24 Analyzed: 08/28/24
Chloride	ND	20.0							
LCS (2435072-BS1)									Prepared: 08/28/24 Analyzed: 08/28/24
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2435072-MS1)				**Source: E408236-01**					Prepared: 08/28/24 Analyzed: 08/28/24
Chloride	259	200	250	ND	104	80-120			
Matrix Spike Dup (2435072-MSD1)				**Source: E408236-01**					Prepared: 08/28/24 Analyzed: 08/28/24
Chloride	255	200	250	ND	102	80-120	1.61	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 E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	08/29/24 14:46

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

Client: Mack Energy
Project: West Mount E
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# E408237
Job Number 20046-0001

TAT: 1D | 2D ✓ | 3D | Standard

EPA Program: CWA | SDWA | RCRA

State: NM ✓ | CO | UT | AZ | TX

Analysis and Method: DRO/ORO by 8015 | GRO/DRO by 8015 | BTEX by 8021 | VOC by 8260 | Metals 6010 | Chloride 4500 | 8GOOC NM ✓ | 8GOOC TX

Time Sampled	Date Sampled	Matrix	No of Containers	Sample ID	Lab Number	Remarks
	08/26	S	1	SP. Comp 1-6'	1	
				SP. Comp. 2-6'	2	
				SP. Comp. 3-6'	3	
				SP. Comp. 4-6'	4	
				SP. Comp. 5-6'	5	
				SP. Comp. 6-6'	6	
				SP. Comp. 7-6'	7	
				SP. Comp. 8-6'	8	
				SW. Comp. 1-6'	9	
	08/26	S	1	SW. Comp. 2-6'	10	

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: Sandra Perez

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
S Perez	08/26/24		Michelle Gonzales	8.27.24	1300
Michelle Gonzales	8.27.24	1545	Andrew Hobbs	8.27.24	1545
Andrew Hobbs	8.27.24	2100		8-28-24	0700

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

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

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

Project Information

Chain of Custody

Client: Mack Energy
Project: West Mount E
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# E408237
Job Number 20046-0001

TAT: 1D | 2D ✓ | 3D | Standard

EPA Program: CWA | SDWA | RCRA

State: NM ✓ | CO | UT | AZ | TX

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	Remarks
	08/26	S	1	SW. Comp. 3-6'	11							✓		
	08/26	S	1	SW. Comp. 4-6'	12							✓		
	08/26	S	1	SW. Comp. 5-6'	13							✓		

Analysis and Method

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: Sandra Perez

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
S Perez	08/26/24		Michelle Gonzales	8.27.24	1300
Michelle Gonzales	8.27.24	1545	Andrew Hobbs	8.27.24	1545
Andrew Hobbs	8.27.24	2100		8-28-24	0700

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

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

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

Envirotech Analytical Laboratory

Printed: 8/28/2024 9:12:41AM

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:	08/28/24 05:00	Work Order ID:	E408237
Phone:	(575) 390-6397	Date Logged In:	08/27/24 15:11	Logged In By:	Noe Soto
Email:	Natalie@energystaffingllc.com	Due Date:	08/29/24 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	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	No	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

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 Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
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 filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Comments/Resolution

Project manager name and time sampled are missing on COC by client.

Client Instruction

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

Date

envirotech Inc.

MACK ENERGY: WEST MOUNT SPILL E
REMEDIATION AND FINAL PHOTOS


DEERE
8/8/2024 10:42
+32.995891,-104.070629
Altitude:1141.5meter
Speed:0.0km/h
Mack Energy
West Mount "E"
Remediation


420F
DEERE
8/8/2024 10:43
+32.995891,-104.070629
Altitude:1140.9meter
Speed:3.5km/h
Mack Energy
West Mount "E"
Remediation


8/8/2024 10:43
+32.995891,-104.070629
Altitude:1140.9meter
Speed:0.0km/h
Mack Energy
West Mount "E"
Remediation


8/8/2024 10:44
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Speed:0.0km/h
Mack Energy
West Mount "E"
Remediation


DEERE
8/8/2024 10:59
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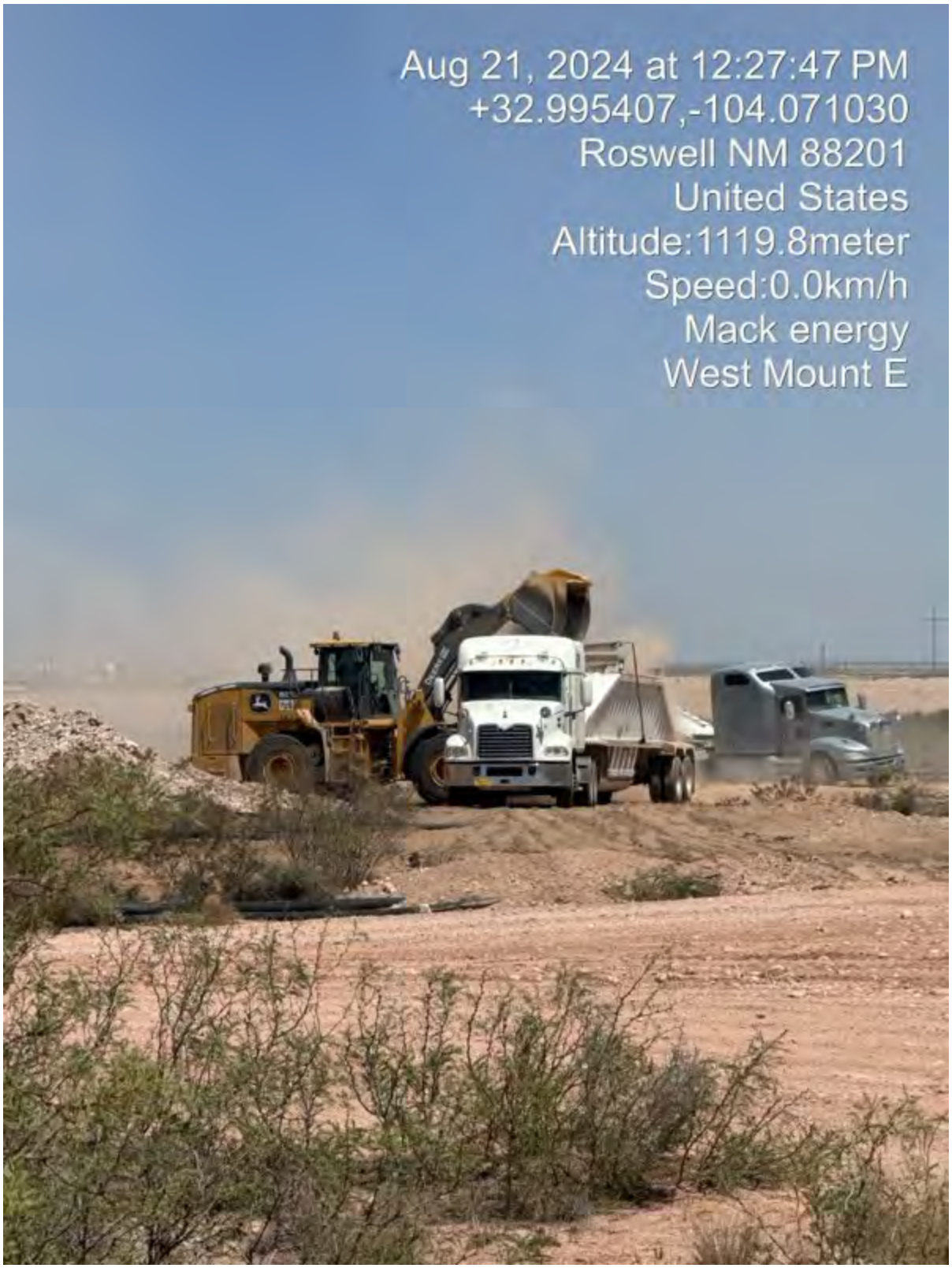
Speed:0.0km/h
Mack Energy
West Mount "E"
Remediation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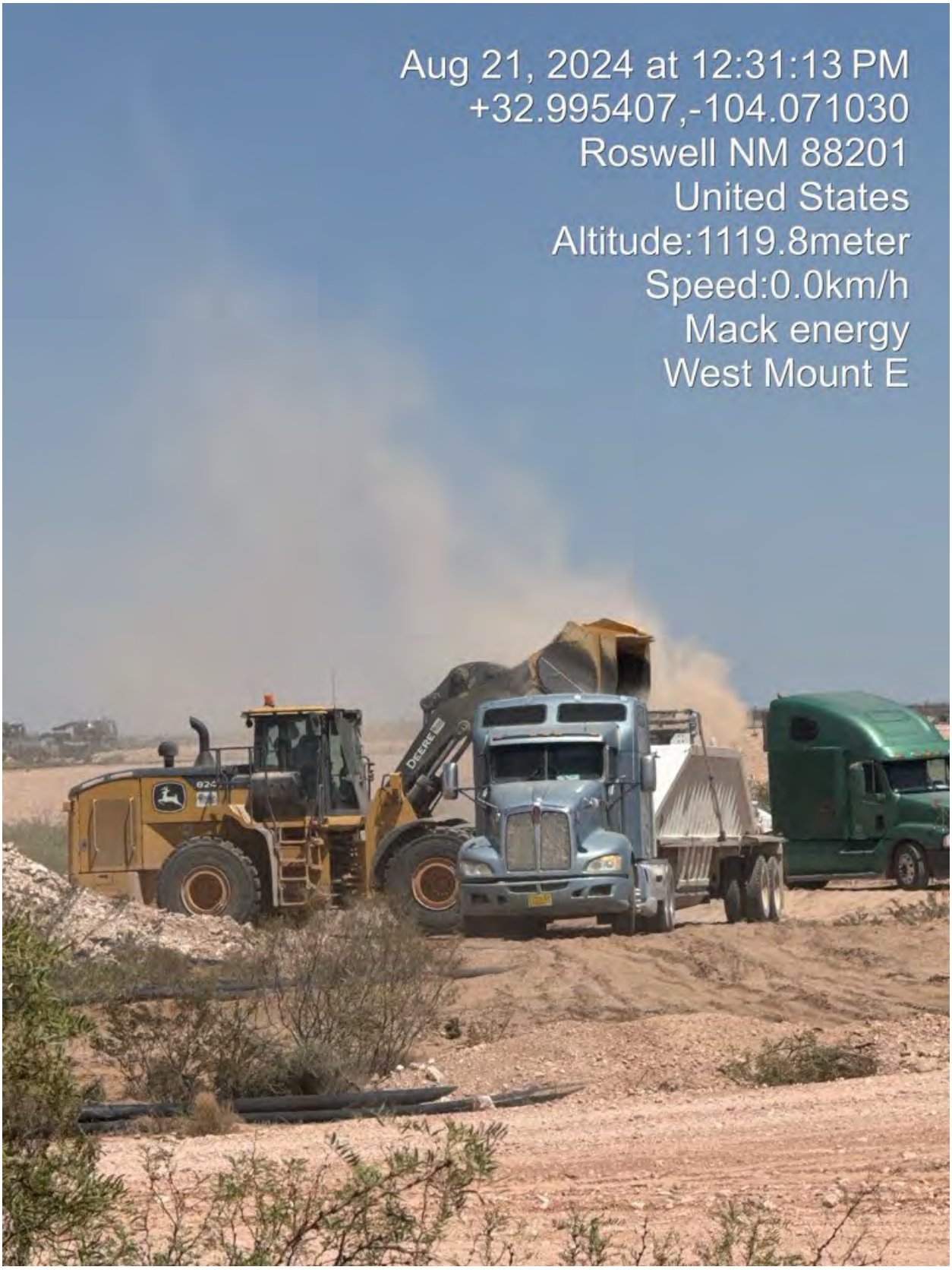
Mack energy
West Mount E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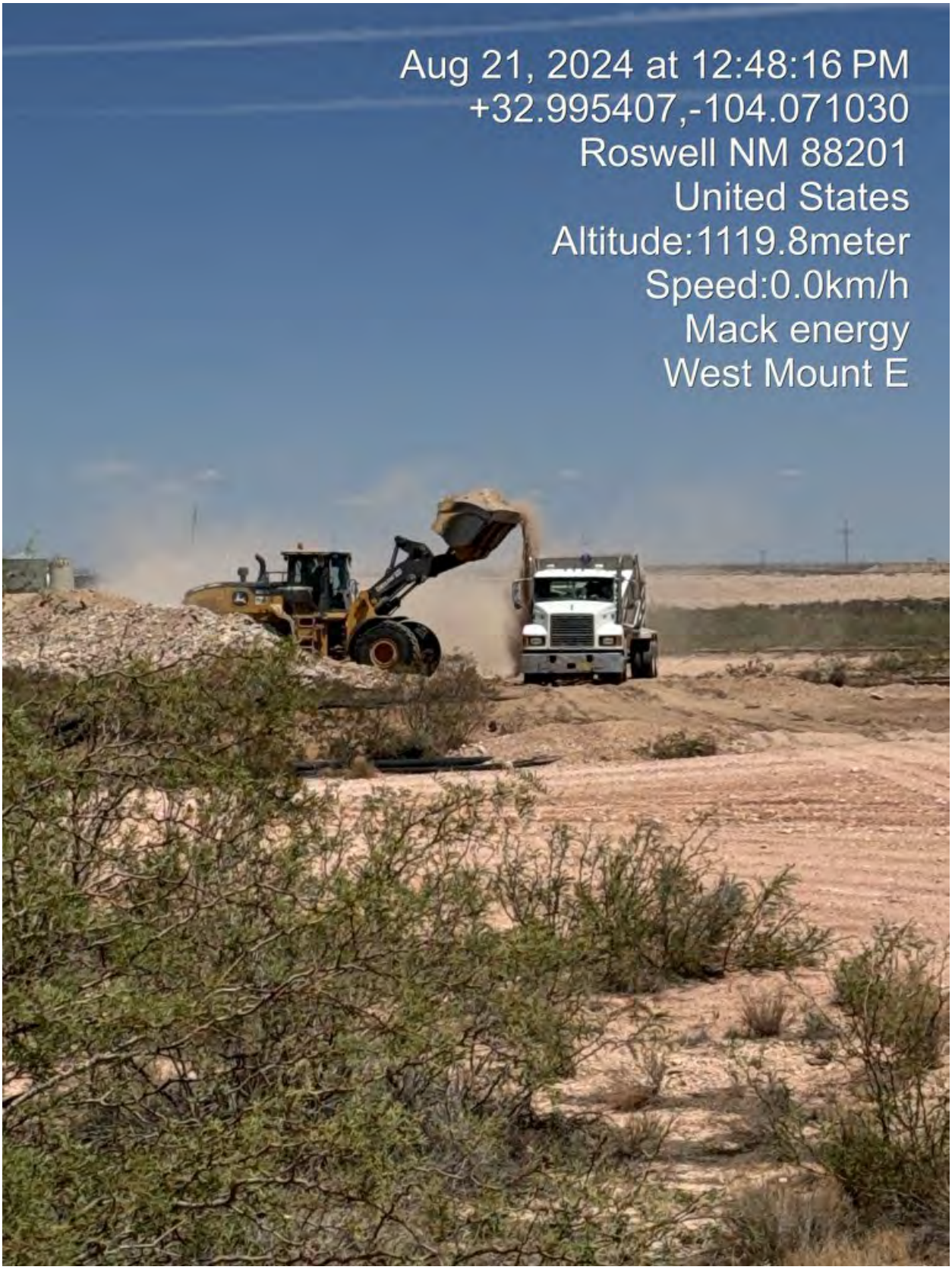
West Mount E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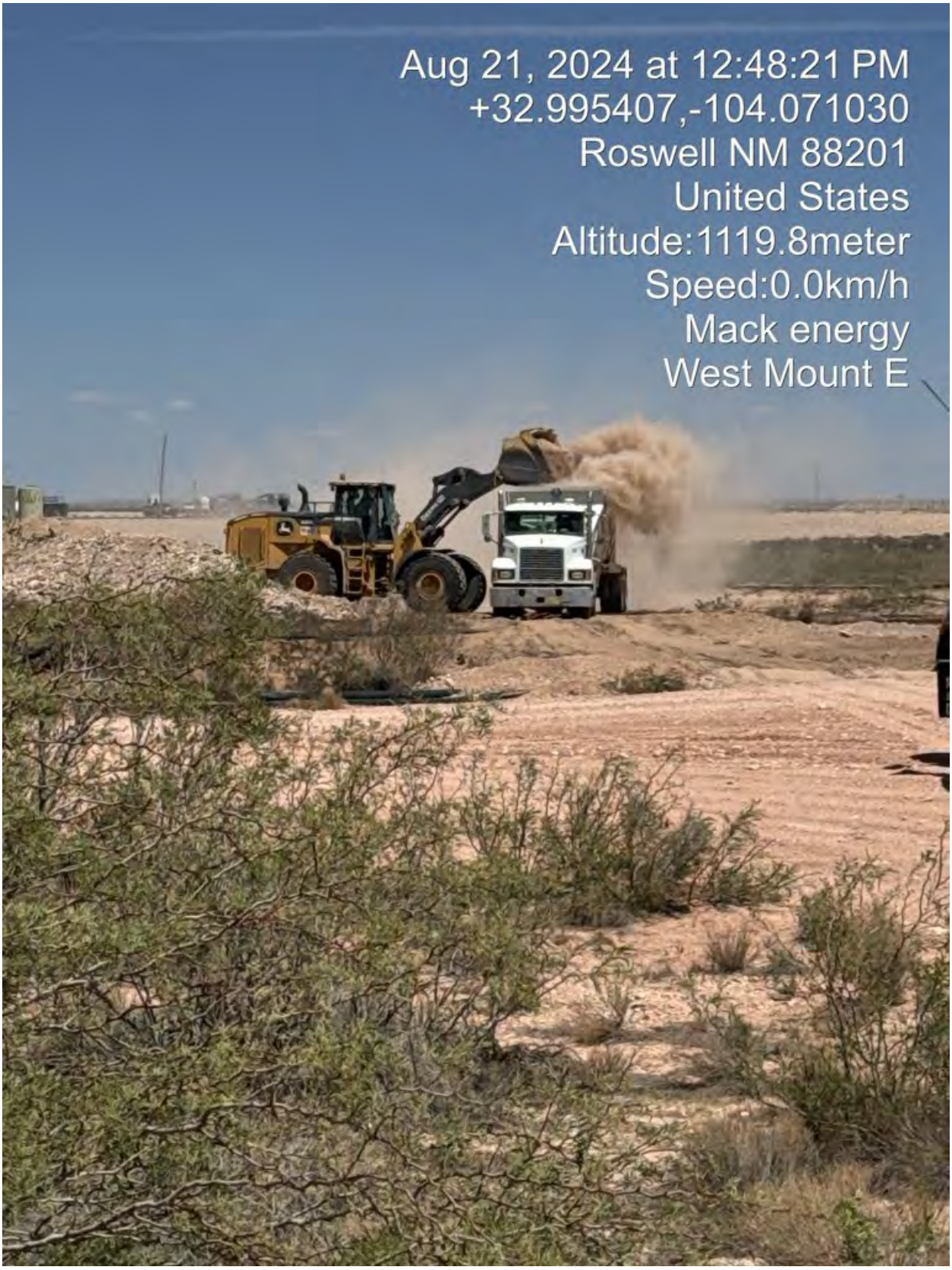
West Mount E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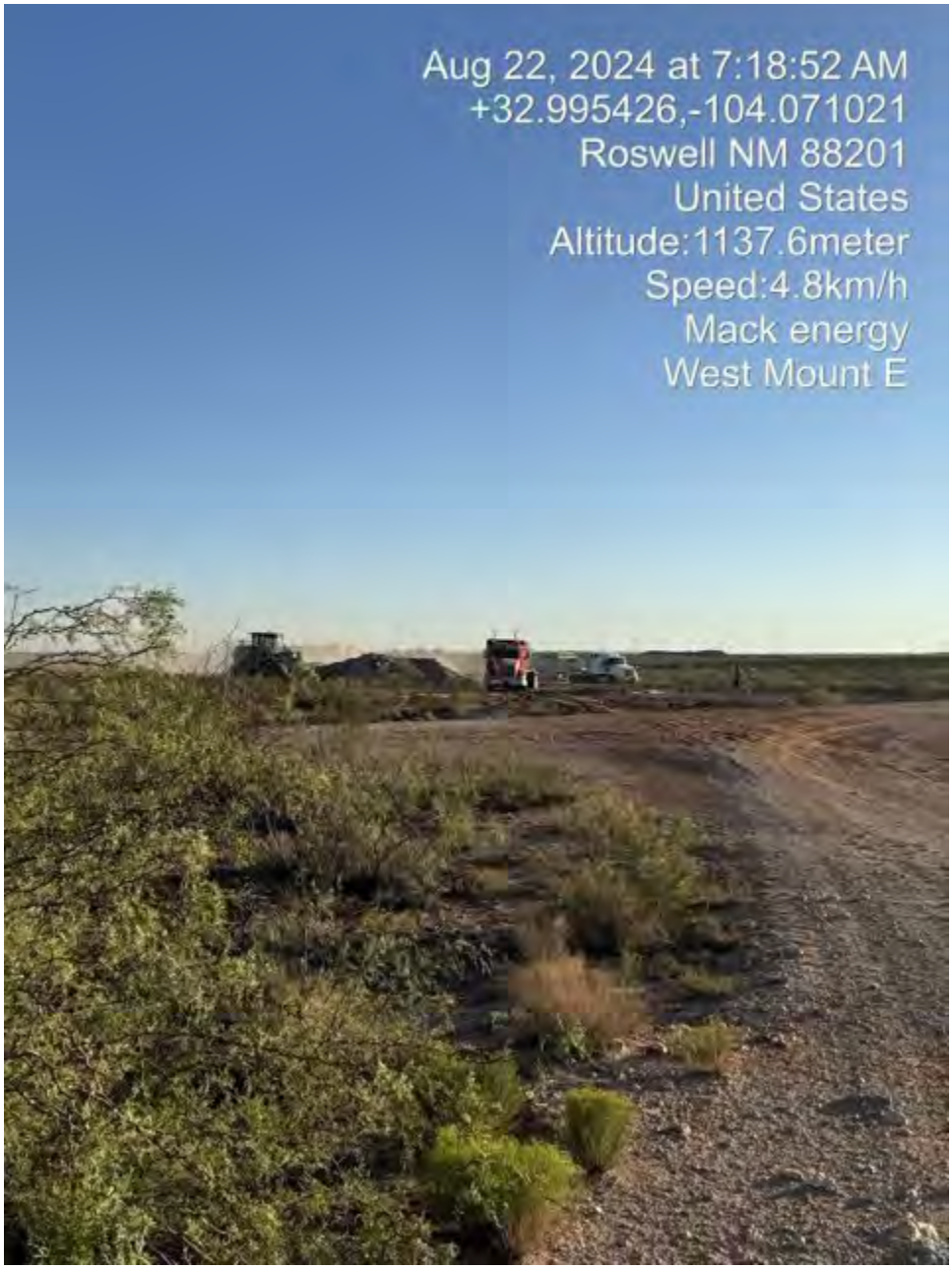
West Mount E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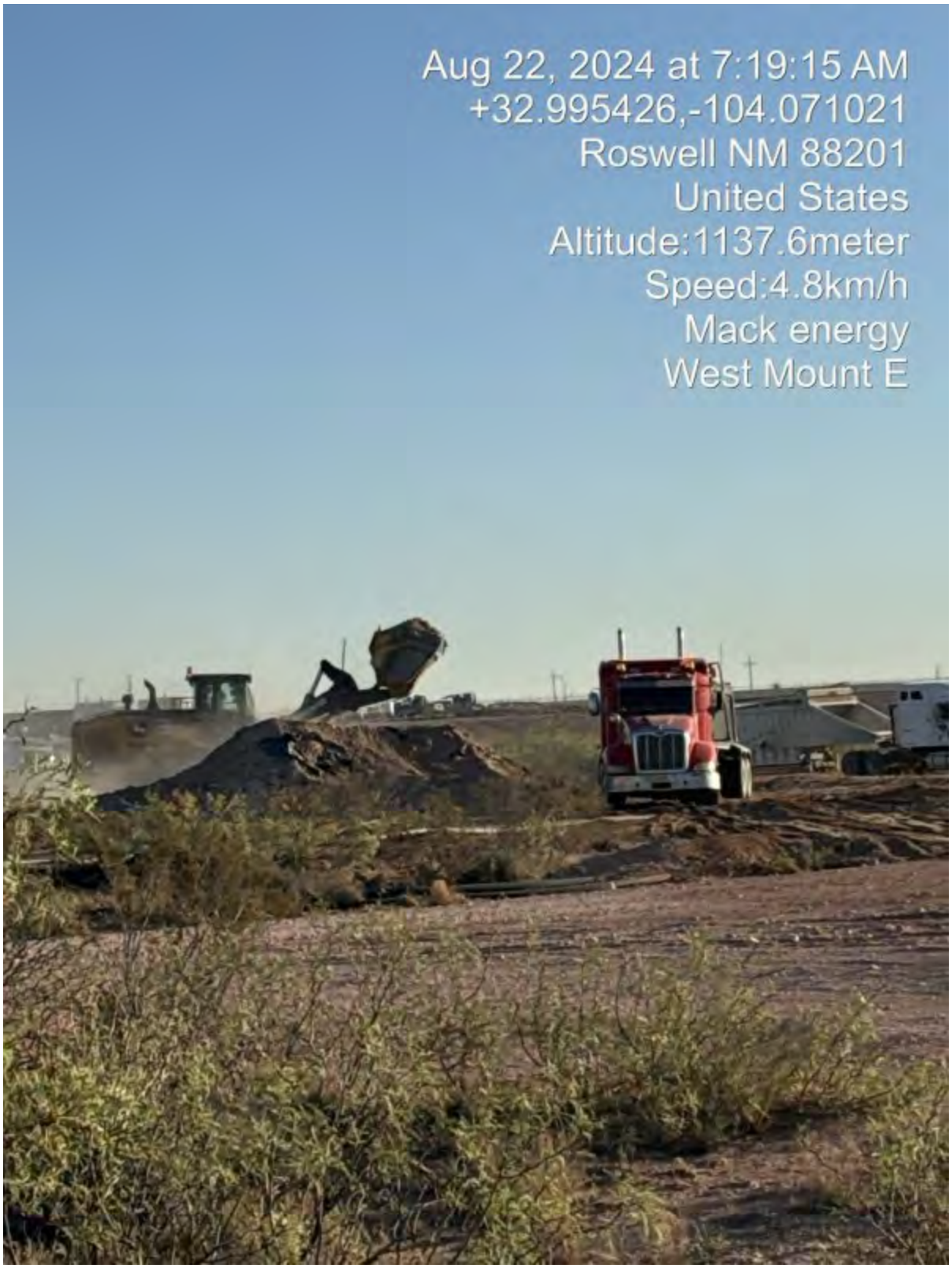
Mack energy
West Mount E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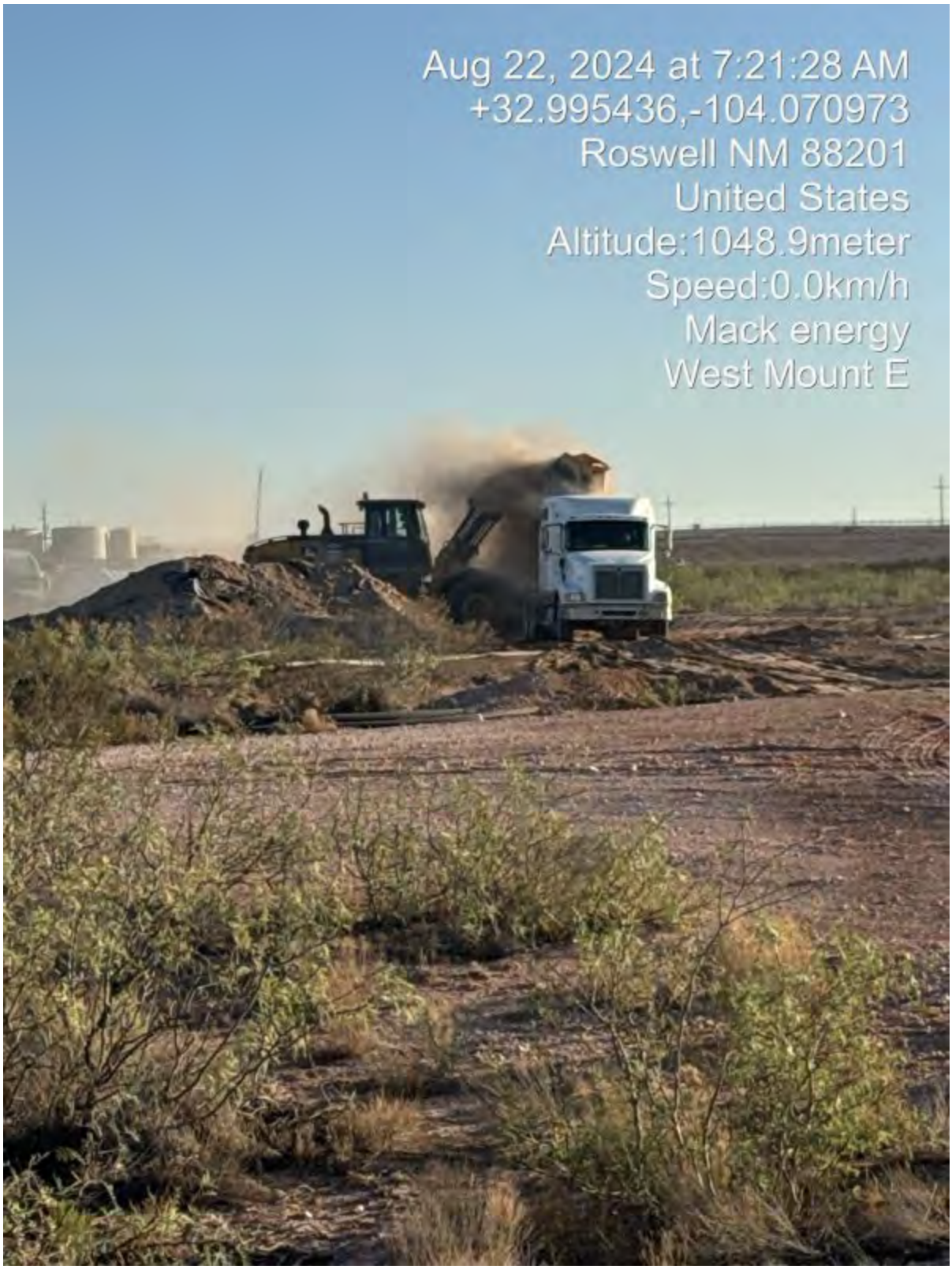
Mack energy
West Mount E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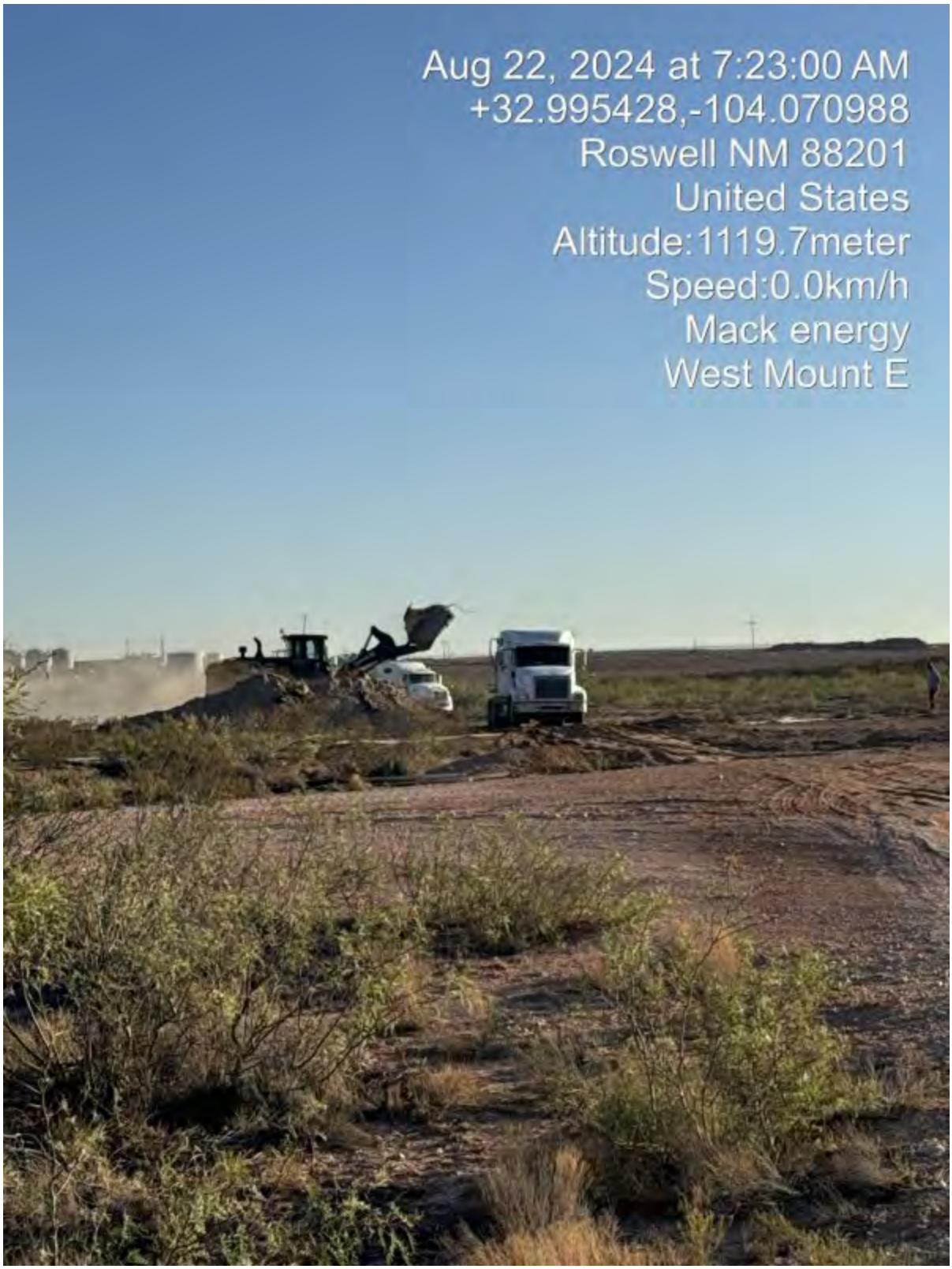
Mack energy
West Mount E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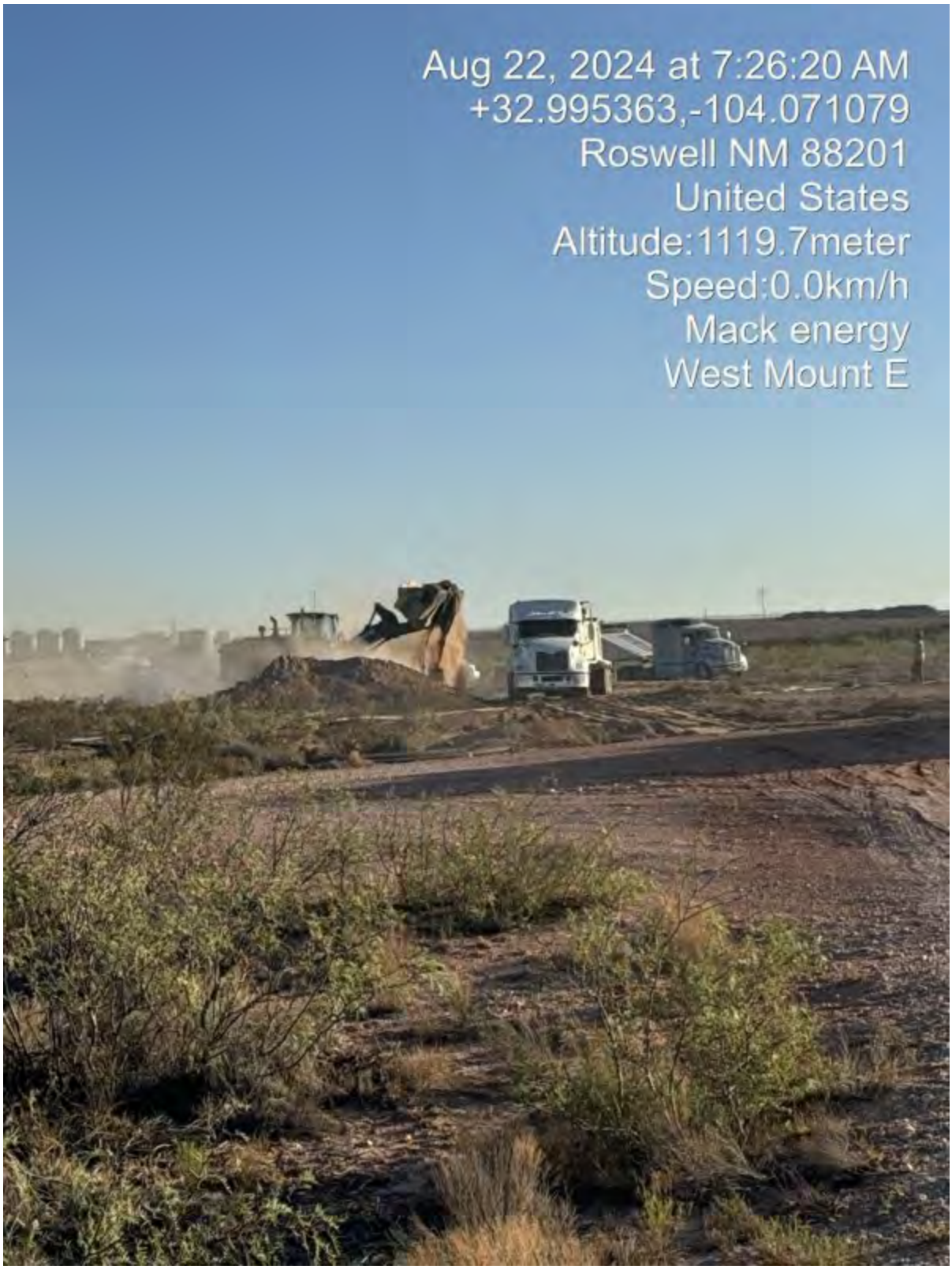
Mack energy
West Mount E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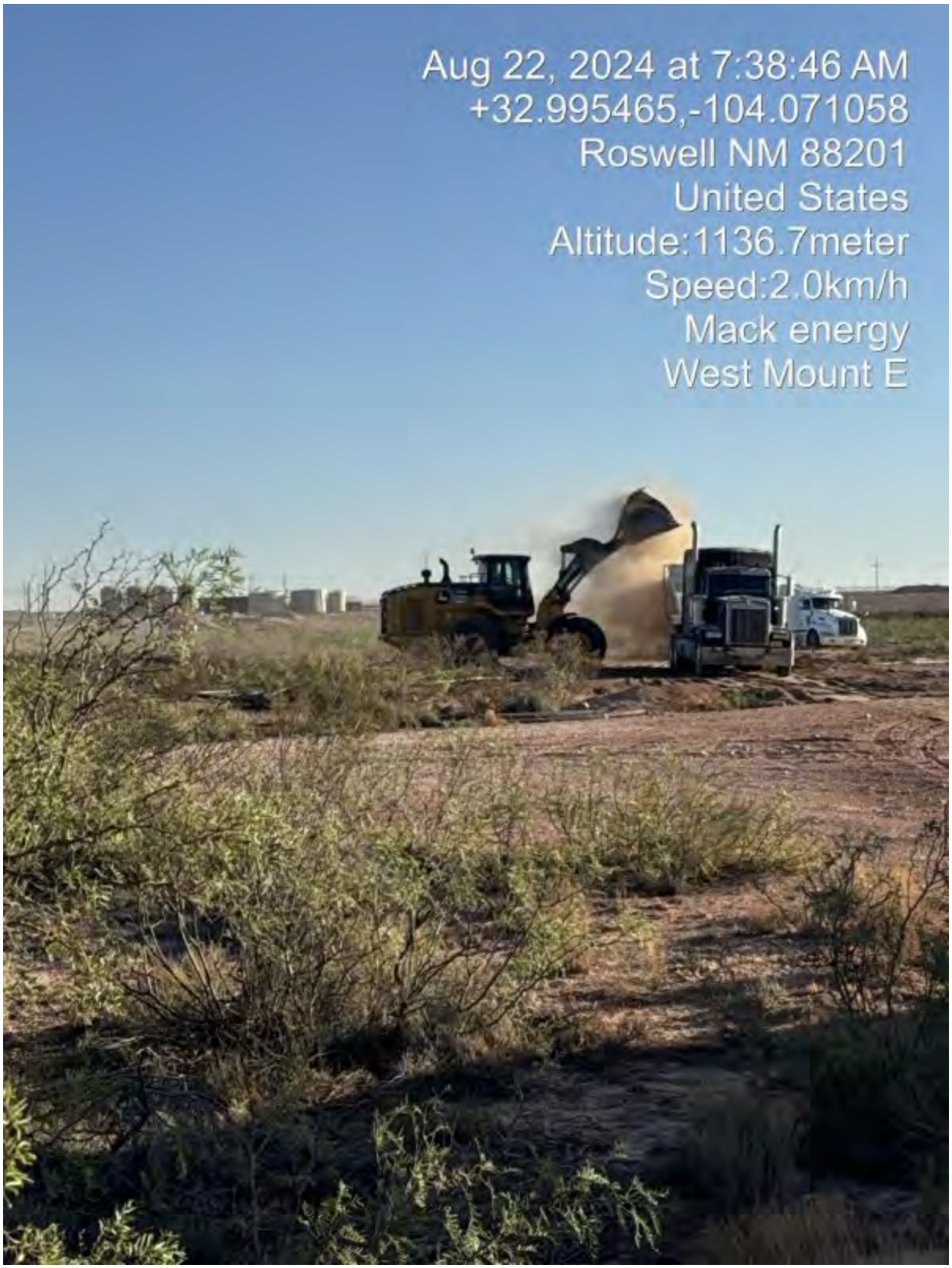
Mack energy
West Mount E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Roswell NM 88201
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Mack energy
West Mount E


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+32.996174,-104.070471
Roswell NM 88201
United States
Altitude:1140.6meter
Speed:2.6km/h
Mack energy
West Mount E


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+32.996174,-104.070471
Roswell NM 88201
United States
Altitude:1139.5meter
Speed:0.4km/h
Mack energy
West Mount E


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Roswell NM 88201
United States
Altitude:1139.5meter
Speed:0.4km/h
Mack energy
West Mount E


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Roswell NM 88201
United States
Altitude:1139.2meter
Speed:0.8km/h
Mack energy
West Mount E


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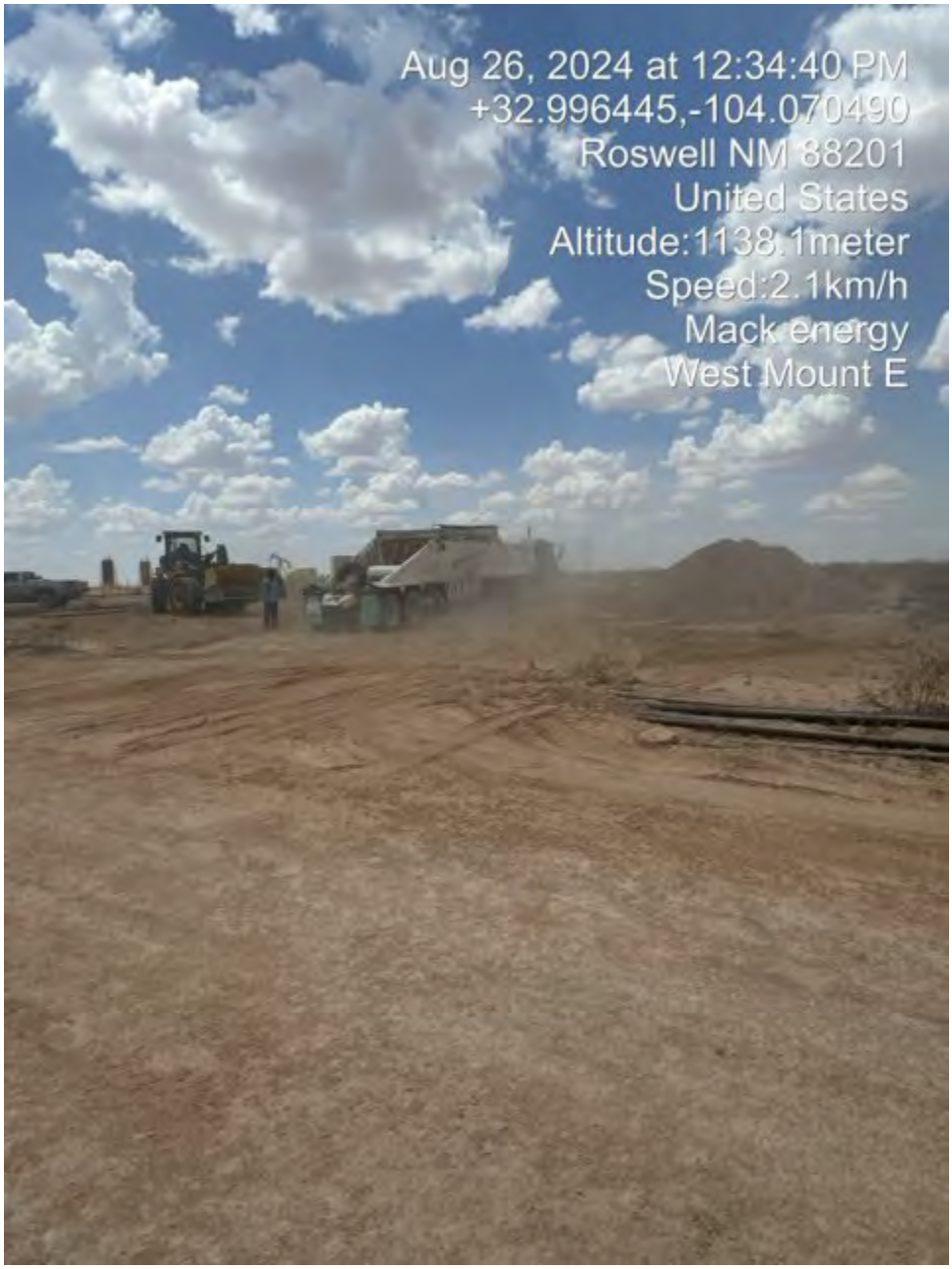
Mack energy
West Mount E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Roswell NM 88201
United States
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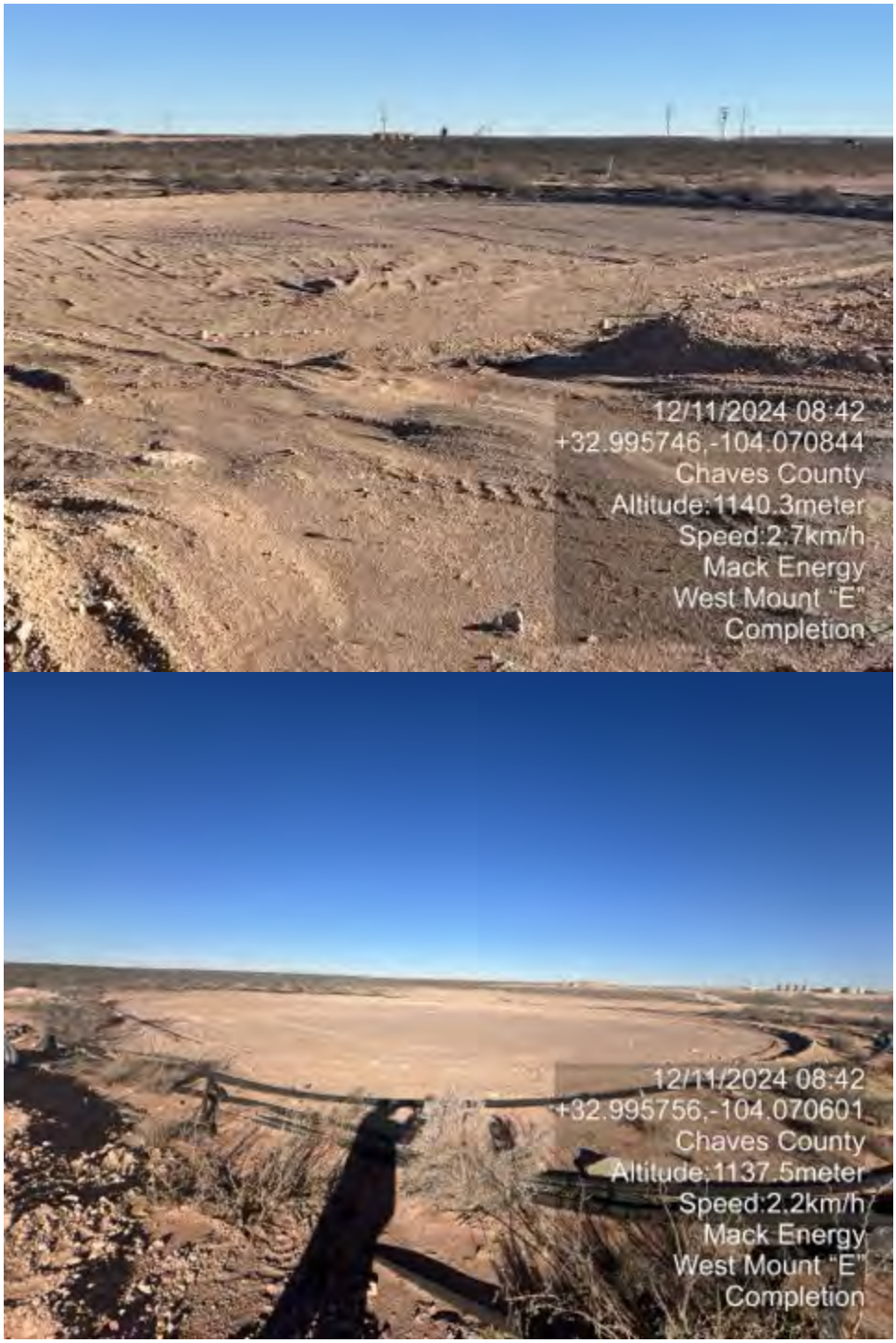
Speed:2.1km/h
Mack energy
West Mount E


Aug 26, 2024 at 12:34:46 PM
+32.996445,-104.070490
Roswell NM 88201
United States
Altitude:1138.1meter
Speed:2.1km/h
Mack energy
West Mount E


Monday, September 16, 2024
32.959198° N, 104.108056° W ±4.74m
Eddy County
Altitude:1140.1meter
Speed:2.8km/h
Mark Energy West Mount site E backfill
Index number:33


Monday, September 16, 2024
32.995960° N, 104.070533° W ±9.03m
Chaves County
Altitude:1140.4meter
Speed:2.8km/h
Mark Energy West Mount site E backfill
Index number:34


Monday, September 16, 2024
32.995856° N, 104.070524° W ±4.61m
Chaves County
Altitude:1140.4meter
Speed:4.6km/h
Mark Energy West Mount site E backfill
Index number:35


12/11/2024 08:42
+32.995746,-104.070844
Chaves County
Altitude:1140.3meter
Speed:2.7km/h
Mack Energy
West Mount "E"
Completion
12/11/2024 08:42
+32.995756,-104.070601
Chaves County
Altitude:1137.5meter
Speed:2.2km/h
Mack Energy
West Mount "E"
Completion


12/11/2024 08:43
+32.995756,-104.070601
Chaves County
Altitude:1139.4meter
Speed:0.2km/h
Mack Energy
West Mount "E"
Completion


12/11/2024 08:44
+32.995995,-104.070751
Chaves County
Altitude:1139.5meter
Speed:4.1km/h
Mack Energy
West Mount "E"
Completion


12/11/2024 08:44
+32.995995,-104.070751
Chaves County
Altitude:1139.5meter
Speed:4.1km/h
Mack Energy
West Mount E
Completion


Tuesday, January 7, 2025
32.9958° N, 104.0708° W
Chaves County
Altitude:3737.3ft
Speed:0.1mph
MEC West Mount Site E topsoil
Index number:350

MACK ENERGY CORPORATION
WEST MOUNT SPILL E
RECLAMATION EXECUTIVE SUMMARY
INCIDENT NO. NAPP2329156011

API NO. 30-005-64381
UNIT LETTER N, SECTION 19, TOWNSHIP 15S, RANGE 29E
CHAVES COUNTY, NEW MEXICO

Reclamation Executive Summary

Subject: Final Reclamation Summary – West Mount Spill E (Incident No. NAPP2329156011)

On January 13, 2025 ESS initiated and completed reclamation activities at the West Mount Spill E site following the finalization of remediation efforts for the release that occurred on September 20, 2023 (Incident Number: NAPP2329156011).

A total of 84 cubic yards of topsoil was loaded and hauled from Kingston's Pit. The topsoil was evenly spread across the entire 1,082 square-foot impacted area. The site was then ripped, contoured, and sloped to match the natural grade. Reseeding was conducted using the Sandy Loam Seed Mix from Curtis and Curtis Seed, which covered the excavation area and disturbed area used for remediation and reclamation efforts consisting of 1,082 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 32.995863 -104.070583. 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.

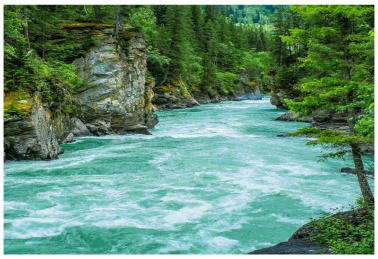
Should you have any questions or require additional information regarding the completed reclamation activities at the West Mount Spill E site for Mack Energy, please feel free to contact me at (575) 390-6397 or (575) 393-9048, or via email at natalie@energystaffingllc.com.

Sincerely,

Natalie Gladden
COO and 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

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 E
Work Order:	E507177
Job Number:	20046-0001
Received:	7/17/2025

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/21/25

Date Reported: 7/21/25

Natalie Gladden
7 W. Compress Road
Artesia, NM 88210

Project Name: West Mount Spill E
Workorder: E507177
Date Received: 7/17/2025 7:00:34AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/17/2025 7:00:34AM, under the Project Name: West Mount Spill E.

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

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Mack Energy	Project Name:	West Mount Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	07/21/25 09:29

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BACKFILL COMP 1- SURF	E507177-01A	Soil	07/15/25	07/17/25	Glass Jar, 2 oz.

Sample Data

Mack Energy	Project Name:	West Mount Spill E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/21/2025 9:29:38AM

BACKFILL COMP 1- SURF

E507177-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA			Batch: 2529119
Benzene	ND	0.0250	1	07/17/25	07/17/25	
Ethylbenzene	ND	0.0250	1	07/17/25	07/17/25	
Toluene	ND	0.0250	1	07/17/25	07/17/25	
o-Xylene	ND	0.0250	1	07/17/25	07/17/25	
p,m-Xylene	ND	0.0500	1	07/17/25	07/17/25	
Total Xylenes	ND	0.0250	1	07/17/25	07/17/25	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*	*70-130*	*07/17/25*	*07/17/25*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA			Batch: 2529119
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/17/25	07/17/25	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*92.4 %*	*70-130*	*07/17/25*	*07/17/25*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH			Batch: 2529134
Diesel Range Organics (C10-C28)	ND	25.0	1	07/17/25	07/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	07/17/25	07/17/25	
Surrogate: n-Nonane		*96.8 %*	*61-141*	*07/17/25*	*07/17/25*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2529117
Chloride	**64.7**	20.0	1	07/17/25	07/17/25	

QC Summary Data

Mack Energy	Project Name:	West Mount Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/21/2025 9:29:38AM

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 (2529119-BLK1)									Prepared: 07/17/25 Analyzed: 07/17/25
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	*8.00*		*8.00*		*100*	*70-130*			
LCS (2529119-BS1)									Prepared: 07/17/25 Analyzed: 07/17/25
Benzene	5.17	0.0250	5.00		103	70-130			
Ethylbenzene	5.14	0.0250	5.00		103	70-130			
Toluene	5.19	0.0250	5.00		104	70-130			
o-Xylene	5.04	0.0250	5.00		101	70-130			
p,m-Xylene	10.3	0.0500	10.0		103	70-130			
Total Xylenes	15.4	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8.02*		*8.00*		*100*	*70-130*			
Matrix Spike (2529119-MS1)				**Source: E507176-01**					Prepared: 07/17/25 Analyzed: 07/17/25
Benzene	5.04	0.0250	5.00	ND	101	70-130			
Ethylbenzene	5.10	0.0250	5.00	ND	102	70-130			
Toluene	5.12	0.0250	5.00	ND	102	70-130			
o-Xylene	5.03	0.0250	5.00	ND	101	70-130			
p,m-Xylene	10.3	0.0500	10.0	ND	103	70-130			
Total Xylenes	15.3	0.0250	15.0	ND	102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8.27*		*8.00*		*103*	*70-130*			
Matrix Spike Dup (2529119-MSD1)				**Source: E507176-01**					Prepared: 07/17/25 Analyzed: 07/17/25
Benzene	4.92	0.0250	5.00	ND	98.4	70-130	2.42	27	
Ethylbenzene	4.99	0.0250	5.00	ND	99.8	70-130	2.12	26	
Toluene	5.00	0.0250	5.00	ND	100	70-130	2.31	20	
o-Xylene	4.93	0.0250	5.00	ND	98.7	70-130	1.95	25	
p,m-Xylene	10.1	0.0500	10.0	ND	101	70-130	2.00	23	
Total Xylenes	15.0	0.0250	15.0	ND	100	70-130	1.98	26	
Surrogate: 4-Bromochlorobenzene-PID	*8.36*		*8.00*		*104*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/21/2025 9:29:38AM

Nonhalogenated Organics by EPA 8015D - GRO

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 (2529119-BLK1)									Prepared: 07/17/25 Analyzed: 07/17/25
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.42*		*8.00*		*92.8*	*70-130*			
LCS (2529119-BS2)									Prepared: 07/17/25 Analyzed: 07/17/25
Gasoline Range Organics (C6-C10)	45.6	20.0	50.0		91.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.55*		*8.00*		*94.4*	*70-130*			
Matrix Spike (2529119-MS2)				**Source: E507176-01**					Prepared: 07/17/25 Analyzed: 07/17/25
Gasoline Range Organics (C6-C10)	42.1	20.0	50.0	ND	84.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.52*		*8.00*		*94.0*	*70-130*			
Matrix Spike Dup (2529119-MSD2)				**Source: E507176-01**					Prepared: 07/17/25 Analyzed: 07/17/25
Gasoline Range Organics (C6-C10)	42.7	20.0	50.0	ND	85.3	70-130	1.40	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.44*		*8.00*		*93.0*	*70-130*			

QC Summary Data

Mack Energy	Project Name:	West Mount Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/21/2025 9:29:38AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2529134-BLK1)									Prepared: 07/17/25 Analyzed: 07/17/25
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*47.8*		*50.0*		*95.7*	*61-141*			
LCS (2529134-BS1)									Prepared: 07/17/25 Analyzed: 07/17/25
Diesel Range Organics (C10-C28)	240	25.0	250		95.9	66-144			
Surrogate: n-Nonane	*47.9*		*50.0*		*95.7*	*61-141*			
Matrix Spike (2529134-MS1)				**Source: E507178-07**					Prepared: 07/17/25 Analyzed: 07/17/25
Diesel Range Organics (C10-C28)	240	25.0	250	ND	96.1	56-156			
Surrogate: n-Nonane	*47.9*		*50.0*		*95.8*	*61-141*			
Matrix Spike Dup (2529134-MSD1)				**Source: E507178-07**					Prepared: 07/17/25 Analyzed: 07/17/25
Diesel Range Organics (C10-C28)	238	25.0	250	ND	95.1	56-156	1.08	20	
Surrogate: n-Nonane	*47.7*		*50.0*		*95.5*	*61-141*			

QC Summary Data

Mack Energy	Project Name:	West Mount Spill E	**Reported:**
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	7/21/2025 9:29:38AM

Anions by EPA 300.0/9056A

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 (2529117-BLK1)									Prepared: 07/17/25 Analyzed: 07/17/25
Chloride	ND	20.0							
LCS (2529117-BS1)									Prepared: 07/17/25 Analyzed: 07/17/25
Chloride	248	20.0	250		99.3	90-110			
Matrix Spike (2529117-MS1)				**Source: E507178-02**					Prepared: 07/17/25 Analyzed: 07/17/25
Chloride	786	20.0	250	555	92.6	80-120			
Matrix Spike Dup (2529117-MSD1)				**Source: E507178-02**					Prepared: 07/17/25 Analyzed: 07/17/25
Chloride	795	20.0	250	555	96.2	80-120	1.12	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 E	
7 W. Compress Road	Project Number:	20046-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Natalie Gladden	07/21/25 09:29

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:	MACK ENERGY
Project:	WEST MONT STILL TB
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#	Job Number
E567177	20046-0001

TAT

1D	2D	3D	Standard
	X		

EPA Program

CWA	SDWA	RCRA

State

NM	CO	UT	AZ	TX	
X					

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	Remarks
830	7/15/25	S	1	BACKFILL COMP 1 - 5426	1							X		3.8

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: M. RIVAS

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
	7/15/25		Carrie Ann Parker	7.16.25	
Carrie Ann Parker	7.16.25	530	Marissa Gonzales	7-16-25	1530
Marissa Gonzales	7-16-25	1900	J.M.	7.16.25	1900

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C

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.

J.M	7.16.25	2400	Caitlin Mars	7/16/25	700

7.17.25 700

envirotech

Envirotech Analytical Laboratory

Printed: 7/17/2025 2:24:30PM

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:	07/17/25 07:00	Work Order ID:	E507177
Phone:	(575) 390-6397	Date Logged In:	07/16/25 16:14	Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	07/18/25 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	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	No	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

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

Comments/Resolution

Project manager not provided on COC.

Client Instruction

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

Date

envirotech Inc.


Tuesday, January 7, 2025
32.9958° N, 104.0703° W
Chaves County
Altitude:3735.9ft
Speed:1.4mph
MEC West Mount Site E topsoil Finished
Index number:357

Curtis and Curtis Seed
SOW GENEROUSLY

Mack Energy
NMSLO Sandy Loam- 1.8 Ac Broadcasted
Lot #: 68135

28.29

Item	% Pure Mix	Origin	Purity	Germ	Dormant	Total Germ:	Test Date
Little Bluestem, Aldous	9.72%	Kansas	61.69%	59.00%	31.00%	90.00%	11/2024
Galleta, Viva	9.30%	Texas	86.14%	21.00%	73.00%	94.00%	9/2024
Blue Grama, Alma	7.36%	Texas	31.75%	94.00%	1.00%	95.00%	10/2024
Sideoats Grama, Niner	7.21%	Texas	71.10%	16.00%	81.00%	97.00%	12/2024
Four-wing Saltbush, Variety Not Stated	7.07%	New Mexico	91.52%	0.00%	0.00%	99.00%	11/2024
Winter Fat, Variety Not Stated	6.66%	New Mexico	48.97%	90.00%	2.00%	92.00%	8/2024
Palmer Penstemon, Variety Not Stated	3.72%	Utah	98.86%	15.00%	79.00%	94.00%	7/2024
Sand Dropseed,Variety Not Stated	3.61%	Oklahoma	95.21%	92.00%	5.00%	97.00%	10/2024
Gaillardia Aristata, Variety Not Stated	3.61%	Oregon	89.09%	97.00%	0.00%	97.00%	6/2024
Blue Flax, Appar	3.60%	Washington	98.42%	97.00%	0.00%	97.00%	6/2024
Blackeyed Susan, Variety Not Stated	3.53%	Iowa	99.38%	99.00%	0.00%	99.00%	6/2024
Seed Total	65.39%						
Inert Matter:	34.54%						
Other Crop:	0.08%						
Weed Seed:	0.01%						
Noxious Weed: None		Texas Permit #772					

NMSLO Sandy Loam-1.8 AC Broadcasted.
Bag into 3) 0.5 acre Bag into 3) 0.5 ac
broadcasted bags @ 28.29 bulk pounds

curtisseed.com 4500 North Prince, Clovis, NM 88101 (575) 762-4759


13 ene 2025 2:51:04 p. m.
32.99599893N 104.0704676W
231° SW
Pipeline
Roswell
Chaves County
New Mexico
Altitud:1112.4m
Velocidad:0.0km/h
West mount spill E
Número de índice: 1190


E
S
W
N
13 ene 2025 2:52:19 p. m.
32.99590726N 104.07065079W
104° E
Pipeline
Roswell
Chaves County
New Mexico
Altitud:1112.1m
Velocidad:0.0km/h
West mount spill E
Número de índice: 1194
Google


13 ene 2025 2:56:30 p. m.
32.99591483N 104.07060567W
312° NW
Pipeline
Roswell
Chaves County
New Mexico
Altitud:1113.1m
Velocidad:0.0km/h
West mount spill E
Número de indice: 1197
Google

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

General Information
Phone: (505) 629-6116

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

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 529652
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2329156011**
Incident Name	**NAPP2329156011 WEST MOUNT SPILL E @ N-19-15S-29E**
Incident Type	**Produced Water Release**
Incident Status	**Reclamation Report Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	WEST MOUNT SPILL E
Date Release Discovered	09/20/2023
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
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	
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.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Human Error | Flow Line - Production | Produced Water | Released: 6 BBL | Recovered: 0 BBL | Lost: 6 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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1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 529652
	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)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
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: 11/24/2025

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QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 529652
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
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.	
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	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
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	Greater than 5 (mi.)
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	No

Remediation Plan	
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.	
Requesting a remediation plan approval with this submission	Yes
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.	
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)	5030
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	95.4
GRO+DRO (EPA SW-846 Method 8015M)	95.4
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
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.	
On what estimated date will the remediation commence	08/08/2024
On what date will (or did) the final sampling or liner inspection occur	08/28/2024
On what date will (or was) the remediation complete(d)	08/26/2024
What is the estimated surface area (in square feet) that will be reclaimed	1082
What is the estimated volume (in cubic yards) that will be reclaimed	484
What is the estimated surface area (in square feet) that will be remediated	1082
What is the estimated volume (in cubic yards) that will be remediated	380
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.	
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.	

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QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 529652
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
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.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(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	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
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 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: 11/24/2025
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.	

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Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 529652
	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 (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 529652
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**375253**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**08/21/2024**
What was the (estimated) number of samples that were to be gathered	**6**
What was the sampling surface area in square feet	**1082**

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	1082
What was the total volume (cubic yards) remediated	380
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	1082
What was the total volume (in cubic yards) reclaimed	484
Summarize any additional remediation activities not included by answers (above)	none

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: 11/24/2025

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QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 529652
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	1082
What was the total volume of replacement material (in cubic yards) for this site	484
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.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	01/13/2025
Summarize any additional reclamation activities not included by answers (above)	AREA WAS CROSS RIPPED, HAND BROADCASTED SEEDED, CROSS RIPPED AND WATERED TO SET SEED.
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 reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 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: 11/24/2025

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QUESTIONS (continued)

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	Action Number: 529652
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
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.	

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CONDITIONS

Action 529652

CONDITIONS

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	Action Number: 529652
	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 #NAPP2329156011 WEST MOUNT SPILL E, thank you. The reclamation/remediation closure report is approved.	12/19/2025