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**PARTITION FEDERAL  
CLOSURE REQUEST**

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**API NO. 30-015-43421  
Unit Letter G, Section 24, Township 17S, Range 31E  
EDDY COUNTY, NEW MEXICO**

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**DATE OF RELEASE: 03/15/2020  
INCIDENT NO. NRM2008663010**

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**02/11/25  
Prepared by:**



**2724 NW COUNTY ROAD  
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February 11, 2025

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NMOCD District II  
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Mack Energy Corporation  
11344 Lovington HWY  
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**Subject: Closure Request for Mack Energy Corporation – Partition Federal**

**API No. 30-015-43421**

**Incident No. NRM2008663010**

**Unit Letter G, Section 24, Township 17 South, Range 31 East  
Eddy County, New Mexico**

To Whom it May Concern:

Mack Energy has retained Energy Staffing Services, LLC (ESS) to conduct a spill assessment for the Partition Federal (hereafter referred to as the "Partition") for the crude oil release that occurred on March 15<sup>th</sup>, 2020. Vertex Resource Services INC. was the owner of records at the time of the release. Mack Energy provided the initial notification of the release to the New Mexico Oil Conservation Division (NMOCD), District II Office on March 16<sup>th</sup>, 2020. Mack Energy also submitted the initial C141 Release Notification, along with the spill calculator used to determine the volume of release (attached) on March 26<sup>th</sup>, 2020. The NMOCD accepted the C141 as record on March 30<sup>th</sup>, 2020, and assigned the incident number of NRM2008663010. (Notification of correspondence is attached).

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

## Incident Description

On March 15<sup>th</sup>, 2020, a pipe fitting on the oil lact split open. This caused approximately 90 barrels of crude oil to be released onto the well pad. The release ran southwest off the well pad and into an adjacent pasture.

Upon discovery of the release, Vertex was dispatched to the site via Mack Energy where approximately 60 barrels of crude oil was able to be recovered. Due to Vertex being the owner of record at the time of the release, ESS does not have any initial site photos for this report.

## Site Characterization

The release at the Partition occurred on Federal Land and is located at 32.823697 latitude and -103.822709 longitude, 5.3 miles southwest of Maljamar, New Mexico. The legal description of the site is Unit Letter G, Section 24, Township 17 South, and Range 31 East. The site is located in Eddy County, New Mexico. Please see site schematic attached.

The Partition consists of production lines and is near production facilities and well pads. The area of the release occurred on the well pad and in the pasture area of the Partition. The elevation is 3,908 feet. The area is historically and primarily dominated by black grama, dropseed, little bluestem, and other perennial grasses and forbs. Please find the attached Rangeland and Vegetation Classification information attached.

The *United States Department of Agriculture Natural Resources Conservation Services* indicated that the spoil type of the Partition consists of 100% Kermit-Berino find sands. (Soil Map Attached). In the area of the Partition, the *FEMA National Flood Hazard Layer* indicates that there is 0.2% chance of a flood hazard with a 1% chance of a flood with an average depth of one foot or with drainage areas of less than one square mile. (See Map Attached).

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

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

The nearest and most recent water well to the site according to the *New Mexico Office of the State Engineer* is RA13234 POD1, drilled in 2022 with a well depth of 104 feet and no groundwater data available. This well is located 1,237 yards from the site. The second well is RA13286 POD1, drilled in 2023 with a well depth of 101 feet and no groundwater data available, located 2,403 yards from the site. The third well is RA13324 POD1, drilled in 2023 with a well depth of 55 feet and no groundwater data available. This well is located 4,571 yards from the site. The fourth well is RA10175, drilled in 2002 with a well depth of 158 feet and no

groundwater data available, located 4,808 yards from the site. The fifth well is RA12020 POD1, drilled in 2013 with a well depth of 120 feet and a groundwater depth of 81 feet. This well is located 4,836 yards from the site. An extended groundwater search was conducted using the *OSE POD Location Mapping System* and has been determined that, no other well or groundwater were found within a ½ mile radius of the Partition release. Please find the NMOSE, OSE POD, and groundwater map attached to this report.

### Closure Criteria Determination

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

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

### Soil Remediation Action Levels

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

### Soil Sampling Procedures

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

- Collect clean samples in airtight glass jars supplied by 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 sample 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 August 3<sup>rd</sup>, 2020, an initial release characterization was conducted by Vertex in which they obtained a total of 21 sample points across the release area. Each of the soil samples were field tested using an electrical conductivity (EC) meter, photoionization detector, and a PetroFlag unit.

On August 21<sup>st</sup>, 2020, Vertex submitted a remediation plan to Mack Energy in which they proposed that “areas identified with contaminant concentrations approaching, or above, the closure criteria to be remediated through excavation and removal of contaminated soil by use of mechanical equipment” and that remediation should “include excavation of the entire release footprint of approximately 7,180 square feet, to depths ranging between one and four feet below ground surface (bgs) as determined by the initial site characterization sampling”.

On December 9<sup>th</sup>, 2020, Mack Energy submitted the remediation plan to the *State of New Mexico Oil Conservation Division (NMOCD)*.

The remediation plan was approved with conditions by the *NMOCD* on August 16<sup>th</sup>, 2021. The conditions stated were “the workplan/remediation plan is approved with the following conditions: Sidewall/floor samples need to comply with the strictest closure criteria limits 600 mg/kg for Chlorides and 100 mg/kg TPH”.

On October 3<sup>rd</sup>, 2021, Mack Energy retained ESS to conduct the remaining delineation and remediation of the Partition. Upon review of the data collected by Vertex, it was determined that additional sampling would need to be conducted during the remediation process to verify concentration levels.

On November 17<sup>th</sup>, 2021, ESS arrived on site of the Partition, set delineation sample points, GPS'd each sample point, and began obtaining surface samples. Each surface sample was field tested, logged, then submitted to Envirotech Laboratory for confirmation. A total of 11 vertical sample points were placed along with 12 horizontal sample points. Each sample point was then sampled by use of hand auger and backhoe in 1' and 2' intervals. Bottom hole samples were then submitted to the lab for confirmation. Please see the delineation sample data below, with

lab data indicated in yellow. Attached to this report you will find the sample data, delineation sample map, and lab analysis.

| SP ID | Depth    | Tit | PID | L-BTEX | L-GRO | L-DRO | L-ORO | L-TPH | L-CHL |
|-------|----------|-----|-----|--------|-------|-------|-------|-------|-------|
| SP1   | SURFACE  | 320 | L   | ND     | ND    | ND    | ND    | ND    | 253   |
|       | 2'       | 160 | L   |        |       |       |       |       |       |
|       | 4'       | 160 | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       |          |     |     |        |       |       |       |       |       |
| SP2   | SURFACE  | 80  | H   | 0.234  | ND    | 8590  | 4440  | 13030 | ND    |
|       | 2'       | 80  | L   |        |       |       |       |       |       |
|       | 4'       | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       |          |     |     |        |       |       |       |       |       |
| SP3   | SURFACE  | 80  | H   | ND     | ND    | 6180  | 2560  | 8740  | ND    |
|       | 2'       | 80  | L   |        |       |       |       |       |       |
|       | 4'       | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       |          |     |     |        |       |       |       |       |       |
| SP4   | SURFACE  | 160 | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       | 2'       | 160 | L   |        |       |       |       |       |       |
|       | 4'       | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       |          |     |     |        |       |       |       |       |       |
| SP5   | SURFACE  | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       | 2'       | 80  | L   |        |       |       |       |       |       |
|       | 4'       | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       |          |     |     |        |       |       |       |       |       |
| SP6   | SSURFACE | 160 | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       | 2'       | 80  | L   |        |       |       |       |       |       |
|       | 4'       | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       |          |     |     |        |       |       |       |       |       |
| SP7   | SURFACE  | 160 | H   | ND     | ND    | 70.6  | 133   | 203.6 | ND    |
|       | 2'       | 160 | L   |        |       |       |       |       |       |
|       | 4'       | 80  | L   | ND     | ND    | ND    | ND    | ND    | 225   |
|       |          |     |     |        |       |       |       |       |       |
| SP8   | SURFACE  | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       | 2'       | 80  | L   |        |       |       |       |       |       |
|       | 4'       | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       |          |     |     |        |       |       |       |       |       |
| SP9   | SURFACE  | 160 | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       | 2'       | 80  | L   |        |       |       |       |       |       |
|       | 4'       | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |
|       |          |     |     |        |       |       |       |       |       |
| SP10  | SURFACE  | 80  | L   | ND     | ND    | ND    | ND    | ND    | ND    |

|      |         |     |   |    |    |    |    |    |      |
|------|---------|-----|---|----|----|----|----|----|------|
|      | 2'      | 80  | L |    |    |    |    |    |      |
|      | 4'      | 80  | L | ND | ND | ND | ND | ND | ND   |
|      |         |     |   |    |    |    |    |    |      |
| SP11 | SURFACE | 80  | L | ND | ND | ND | ND | ND | ND   |
|      | 2'      | 80  | L |    |    |    |    |    |      |
|      | 4'      | 80  | L | ND | ND | ND | ND | ND | ND   |
|      |         |     |   |    |    |    |    |    |      |
| SW1  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |
|      | 1       | 160 |   |    |    |    |    |    |      |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |
|      |         |     |   |    |    |    |    |    |      |
| SW2  | SURF    | 240 | L | ND | ND | ND | ND | ND | ND   |
|      | 1       | 160 |   |    |    |    |    |    |      |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |
|      |         |     |   |    |    |    |    |    |      |
| SW3  | SURF    | 160 | L | ND | ND | ND | ND | ND | 59.2 |
|      | 1       | 160 |   |    |    |    |    |    |      |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | 56.1 |
|      |         |     |   |    |    |    |    |    |      |
| SW4  | SURF    | 160 | L | ND | ND | ND | ND | ND | 53.6 |
|      | 1       | 160 |   |    |    |    |    |    |      |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | 51.4 |
|      |         |     |   |    |    |    |    |    |      |
| SW5  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |
|      | 1       | 160 |   |    |    |    |    |    |      |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |
|      |         |     |   |    |    |    |    |    |      |
| SW6  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |
|      | 1       | 160 |   |    |    |    |    |    |      |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |
|      |         |     |   |    |    |    |    |    |      |
| SW7  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |
|      | 1       | 160 |   |    |    |    |    |    |      |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |
|      |         |     |   |    |    |    |    |    |      |
| SW8  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |
|      | 1       | 160 |   |    |    |    |    |    |      |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |
|      |         |     |   |    |    |    |    |    |      |
| SW9  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |
|      | 1       | 160 |   |    |    |    |    |    |      |

|      |      |     |   |    |    |      |      |       |     |
|------|------|-----|---|----|----|------|------|-------|-----|
|      | 2    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |
| SW10 | SURF | 160 | L | ND | ND | ND   | ND   | ND    | ND  |
|      | 1    | 160 |   |    |    |      |      |       |     |
|      | 2    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |
| SW11 | SURF | 160 | L | ND | ND | ND   | ND   | ND    | ND  |
|      | 1    | 160 |   |    |    |      |      |       |     |
|      | 2    | 160 | H | ND | ND | 46.8 | 73.3 | 120.1 | 246 |
|      | 3    | 240 |   |    |    |      |      |       |     |
|      | 4    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |
| SW12 | SURF | 160 | H | ND | ND | 48.8 | 78.7 | 127.5 | 284 |
|      | 1    | 160 |   |    |    |      |      |       |     |
|      | 2    | 160 | H | ND | ND | 50   | ND   | 50    | ND  |
|      | 3    | 320 |   |    |    |      |      |       |     |
|      | 4    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |

Please see the delineation photos attached herein. Due to the employee at the time work was being conducted is no longer being employed with ESS, delineation photos are limited for this report.

On July 21<sup>st</sup>, 2023, ESS notified the OCD for the start of the composite phase.

On August 9<sup>th</sup>, 2023, ESS crew began obtaining 200 square foot composites from the excavation area. A total of 73 bottom hole composites were obtained, field tested and submitted to the lab for confirmation. Please find the composite sample data below as well as attached to this report followed by the lab confirmation data.

| SP ID | Depth | Titr | PID | L-BTEX | L-GRO | L-DRO | L-ORO | L-TPH | L-CHL |
|-------|-------|------|-----|--------|-------|-------|-------|-------|-------|
| COMP1 | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 25.2  |
| COMP2 | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 25.3  |
| COMP3 | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 25    |
| COMP4 | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 24.9  |
| COMP5 | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 25.4  |
| COMP6 | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |



|        |   |     |   |    |    |    |    |    |    |
|--------|---|-----|---|----|----|----|----|----|----|
|        |   |     |   |    |    |    |    |    |    |
| COMP7  | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP8  | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP9  | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP10 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP11 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP12 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP13 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP14 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP15 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP16 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP17 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP18 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP19 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP20 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP21 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP22 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP23 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP24 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP25 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |
| COMP26 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|        |   |     |   |    |    |    |    |    |    |

|        |   |     |   |    |    |    |    |    |      |
|--------|---|-----|---|----|----|----|----|----|------|
| COMP27 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |
| COMP28 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |
| COMP29 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |
| COMP30 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP31 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP32 | 1 | 160 | L | ND | ND | ND | ND | ND | 76.2 |
| COMP33 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP34 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP35 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP36 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP37 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP38 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP39 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP40 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP41 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP42 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP43 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP44 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP45 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |
| COMP46 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |
| COMP47 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |

|         |   |     |   |    |    |    |    |    |    |
|---------|---|-----|---|----|----|----|----|----|----|
| COMP48  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP49  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP50  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP51  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP52  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP53  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP54  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP55  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP56  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP57  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP58  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| COMP59  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| SWCOMP1 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| SWCOMP2 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| SWCOMP3 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| SWCOMP4 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| SWCOMP5 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| SWCOMP6 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| SWCOMP7 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
| SWCOMP8 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |



|          |   |     |   |    |    |    |    |    |    |
|----------|---|-----|---|----|----|----|----|----|----|
| SWCOMP9  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|          |   |     |   |    |    |    |    |    |    |
| SWCOMP10 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|          |   |     |   |    |    |    |    |    |    |
| SWCOMP11 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|          |   |     |   |    |    |    |    |    |    |
| SWCOMP12 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|          |   |     |   |    |    |    |    |    |    |
| SWCOMP13 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|          |   |     |   |    |    |    |    |    |    |
| SWCOMP14 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |
|          |   |     |   |    |    |    |    |    |    |

Due to the employee at the time work was being conducted is no longer employed with ESS, there are no remediation photos available for this report.

During the remediation phase of the Partition, a total of 763 cubic yards of contaminated soil was excavated and hauled to Lea-Land Disposal. A total of 500 cubic yards of caliche and topsoil was pushed up and hauled from the landowners pit to location and native soil was utilized to finish backfilling the site. The backfill material was staged and transferred to the pad and pasture area where backfilling of the site occurred. The site was contoured back to its natural grade and seeded with BLM #3 seed. Backfilling of the Partition was completed on August 25, 2023. Please see final photos attached herein.

### Closure Request

On behalf of Mack Energy, ESS requests that the incident (NRM2008663010) be closed for the release that occurred off the well pad and into the pasture area of the Partition Federal. Mack Energy and ESS certify that all information provided and detailed in this report is true and correct. We have also complied with all applicable closure requirements for the release that occurred on the Partition site.

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



## **Attachments**

Initial C141  
Vertex Report  
Impact Map  
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  
Final Photos  
Final C141

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Page 1 of 2

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    | NRM2008663010 |
| District RP    |               |
| Facility ID    |               |
| Application ID |               |

## Release Notification

### Responsible Party

|  |                                 |
|--|---------------------------------|
| Responsible Party: MACK ENERGY CORPORATION                         | OGRID: 013837                   |
| Contact Name: Matt Buckles   | Contact Telephone: 575-748-1288 |
| Contact email: mattbuckles@mec.com                                 | Incident # NRM2008663010        |
| Contact mailing address: 11344 Lovington Highway Artesia, NM 88210 |                                 |

### Location of Release Source

Latitude 32.823697 Longitude -103.822709  
(NAD 83 in decimal degrees to 5 decimal places)

|   |                         |
|---|-------------------------|
| Site Name: Partition Federal            | Site Type: tank battery |
| Date Release Discovered: March 15, 2020 | API# (if applicable):   |

| Unit Letter | Section | Township | Range | County |
|-------------|---------|----------|-------|--------|
| G           | 24      | 17S      | 31E   | Eddy   |

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

### Nature and Volume of Release

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

|   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Crude Oil | Volume Released (bbls) 90 Bbls   | Volume Recovered (bbls) 60 bbls                          |
| <input type="checkbox"/> Produced Water       | Volume Released (bbls):  | Volume Recovered (bbls):                                 |
|   | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> Condensate           | Volume Released (bbls)   | Volume Recovered (bbls)                                  |
| <input type="checkbox"/> Natural Gas          | Volume Released (Mcf)  | Volume Recovered (Mcf)                                   |
| <input type="checkbox"/> Other (describe)     | Volume/Weight Released (provide units)   | Volume/Weight Recovered (provide units)                  |

Cause of Release: A pipe fitting on the oil lact split open at the threads.

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Form C-141

Page 2 of 2


Page 2

State of New Mexico  
Oil Conservation Division

|                |  |
|----------------|--|
| Incident ID    |  |
| District RP    |  |
| Facility ID    |  |
| Application ID |  |

|  |  |
|--|--|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | If YES, for what reason(s) does the responsible party consider this a major release?<br>Greater than 25 bbls |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?<br>Yes, an email was sent to Mike Bratcher, Victoria Venegas, and Robert Hamlet, along with BLM on 3/16/2020 at 8:20AM. |  |

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

|  |                                |
|--|--------------------------------|
| <input checked="" type="checkbox"/> The source of the release has been stopped.<br><input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.<br><input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.<br><input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.   |                                |
| If all the actions described above have <u>not</u> been undertaken, explain why:<br><br><br><br><br><br><br><br><br><br>   |                                |
| Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.  |                                |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |                                |
| Printed Name: <u>Matt Buckles</u>  | Title: <u>Environmental</u>    |
| Signature: <u></u>  | Date: <u>3-26-2020</u>         |
| email: <u>mattbuckles@mec.com</u>  | Telephone: <u>575-748-1288</u> |
| <b><u>OCD Only</u></b>   |                                |
| Received by: <u>Ramona Marcus</u>  | Date: <u>3/30/2020</u>         |

## Environmental Site Remediation Work Plan

VERTEX

## General Information

|                 |                         |                |                   |
|-----------------|-------------------------|----------------|-------------------|
| NMOCD District: | District 2              | Incident #:    | NRM2008663010     |
| Landowner:      | Federal                 |                |                   |
| Client:         | Mack Energy Corporation | Site Location: | Partition Federal |
| Date:           | August 21, 2020         | Project #:     | 20E-01755-001     |
| Client Contact: | Matt Buckles            | Phone #:       | (575) 748-1288    |
| Vertex PM:      | Natalie Gordon          | Phone #:       | (505) 506-0040    |

## Objective

The objective of this environmental remediation work plan is to identify areas of exceedance for constituents of concern found during spill assessment and site characterization activities and propose appropriate remediation techniques to address the open release at Partition Federal (hereafter referred to as "Partition"). This incident occurred when a pipe fitting on the oil lact split open, releasing approximately 90 barrels (bbls) of crude oil onto the well pad. The release ran southwest off the well pad into the adjacent pasture. The location and boundaries of this release are identified on Figure 1 (Attachment 1). Areas of concern identified and delineated include nearby equipment and aboveground pipelines.

Initial site research and characterization has been completed and a closure criteria determination worksheet, and applicable research as it pertains to closure criteria selection, are included in Attachment 2. The release at Partition is not subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 *New Mexico Administrative Code* (NMAC). As there is no recent groundwater data from within 0.5 miles of the release location, the depth to groundwater cannot be accurately determined and the closure criteria for the site are determined to be associated with the following constituent concentration limits.

| Table 1. Closure Criteria for Soils Impacted by a Release   |                                       |           |
|---|---------------------------------------|-----------|
| Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/L TDS <sup>1</sup> | Constituent                           | Limit     |
| < 50 feet   | Chloride                              | 600 mg/kg |
|   | TPH <sup>2</sup><br>(GRO + DRO + MRO) | 100 mg/kg |
|   | BTEX <sup>3</sup>                     | 50 mg/kg  |
|   | Benzene                               | 10 mg/kg  |

<sup>1</sup>Total Dissolved Solids (TDS)

<sup>2</sup>Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)

<sup>3</sup>Benzene, toluene, ethyl benzene and xylenes (BTEX)

In addition to the Closure Criteria established in Table 1, restoration and reclamation activities will be required for off-pad portions of the release to meet restoration requirements associated with releases off-lease. The New Mexico Oil Conservation Division (NM OCD) currently requires a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations of less than 600 mg/kg, and levels of other contaminants that meet the most protective concentrations contained in 19.15.29.12 NMAC as shown in Table 1.

## Site Assessment/Characterization

The Partition release characterization was completed on August 3, 2020. A total of 21 sample points were established across the release area as shown on Figure 1 (Attachment 1) and soil samples were collected from these locations at various depths. Each soil sample was field screened, using an electrical conductivity (EC) meter to estimate the level of chlorides in the soil,



**Environmental Site Remediation Work Plan****VERTEX**

a photoionization detector to detect the presence of volatile organics and the PetroFLAG unit to estimate levels of petroleum hydrocarbons. The results were used to determine the horizontal and vertical extents of the release as shown on Figure 1 (Attachment 1). A selection of these characterization samples were submitted to a laboratory for full analysis to support the in-field findings. Data from the field screening and laboratory analyses have been compared to the above-noted closure criteria results to establish the appropriate level of remediation required. Complete characterization field screening and laboratory data results are presented in Table 2 (Attachment 3) and exceedances are identified in the table as bold with a grey background.

**Proposed Remedial Activities**

Vertex proposes areas identified with contaminant concentrations approaching, or above, the closure criteria identified in Table 1 be remediated through excavation and removal of contaminated soil with the use of mechanical equipment. Remediation should include excavation of the entire release footprint of approximately 7,180 square feet, to depths ranging between one and four feet below ground surface (bgs) as determined by initial characterization sampling.

A Vertex environmental technician will be onsite during excavation activities utilizing field screening methods to confirm removal of contaminated soil to below the applicable closure criteria as shown in Table 1. Approximately 605 cubic yards of contaminated soil are projected to be removed during excavation. Contaminated soils will be removed from site immediately or stored on a 30-mil liner prior to removal and disposal at an approved facility. Once excavation is complete, five-point composite confirmatory samples will be collected from the base and sidewalls of the excavation in accordance with the sample plan detailed in Attachment 4. The sampling plan is based on a non-parametric statistical sampling design, using the methods developed by Hahn and Meeker (1991), and was designed through the Visual Sample Plan (VSP) program. Sampling using VSP meets the Environmental Protection Agency's data quality assessment standards (DQAs) for composite sampling. This type of sampling approach is a variance from the alternative 200 square foot rule as described in Subparagraph (c) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC. Please let this workplan serve as a formal variance request to the above-mentioned sampling method per the variance process outlined in Subsection A of 19.15.29.14 NMAC.

The need for a variance to the 200 square foot sampling method is based on an effort to decrease potential impacts to the off-lease portions of the spill. Using the VSP program to design a statistical sampling plan allows for a sampling approach that provides high statistical confidence in proving that no contaminants of concern above the closure and remediation requirements shown in Table 1 remain in the release area, while minimizing additional ground disturbing activities and potential damage to existing vegetation via foot and/or vehicle traffic. Statistically, the high level of confidence obtained by following the VSP sampling method in Attachment 4 is not significantly increased by collecting additional samples. For each additional sample collected over the VSP-recommended number, the incremental increase in confidence gets smaller but the risk of additional unnecessary impact to the remediation area and surrounding landscape increases due to the presence of technicians and equipment.

All confirmatory samples will be placed into laboratory-provided containers, preserved on ice and submitted to a National Environmental Laboratory Accreditation Program-approved laboratory for chemical analysis. Laboratory analyses will include Method 300.0 for chlorides, Method 8021B for volatile organics, including benzene and BTEX, and EPA Method 8015 for TPH, including MRO, DRO and GRO.

A GeoExplorer 7000 Series Trimble global positioning system (GPS) unit, or equivalent, will be used to map the approximate center of each of the five-point composite samples.

Excavations will be backfilled with clean soil sourced locally and contoured to reconstruct existing grade and prevent ponding of water or erosion, and aid in the re-establishment of native vegetation in the off-pad portions of the remediation area.



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## Environmental Site Remediation Work Plan

VERTEX

### Timeline for Completion

Remediation activities, as outlined in this workplan, are projected to be completed within 90 days of receiving NM OCD notice of approval of this workplan and alternate sampling plan.

If there are any questions regarding this report, please contact the undersigned at 505-506-0040.

Sincerely,



Natalie Gordon  
PROJECT MANAGER

### Attachments

Attachment 1: Figure 1 – Release Area and Characterization Sampling Points

Attachment 2: Closure Criteria Determination Worksheet and Documentation

Attachment 3: Table 2 – Release Characterization Sampling – Field Screening and Laboratory Data

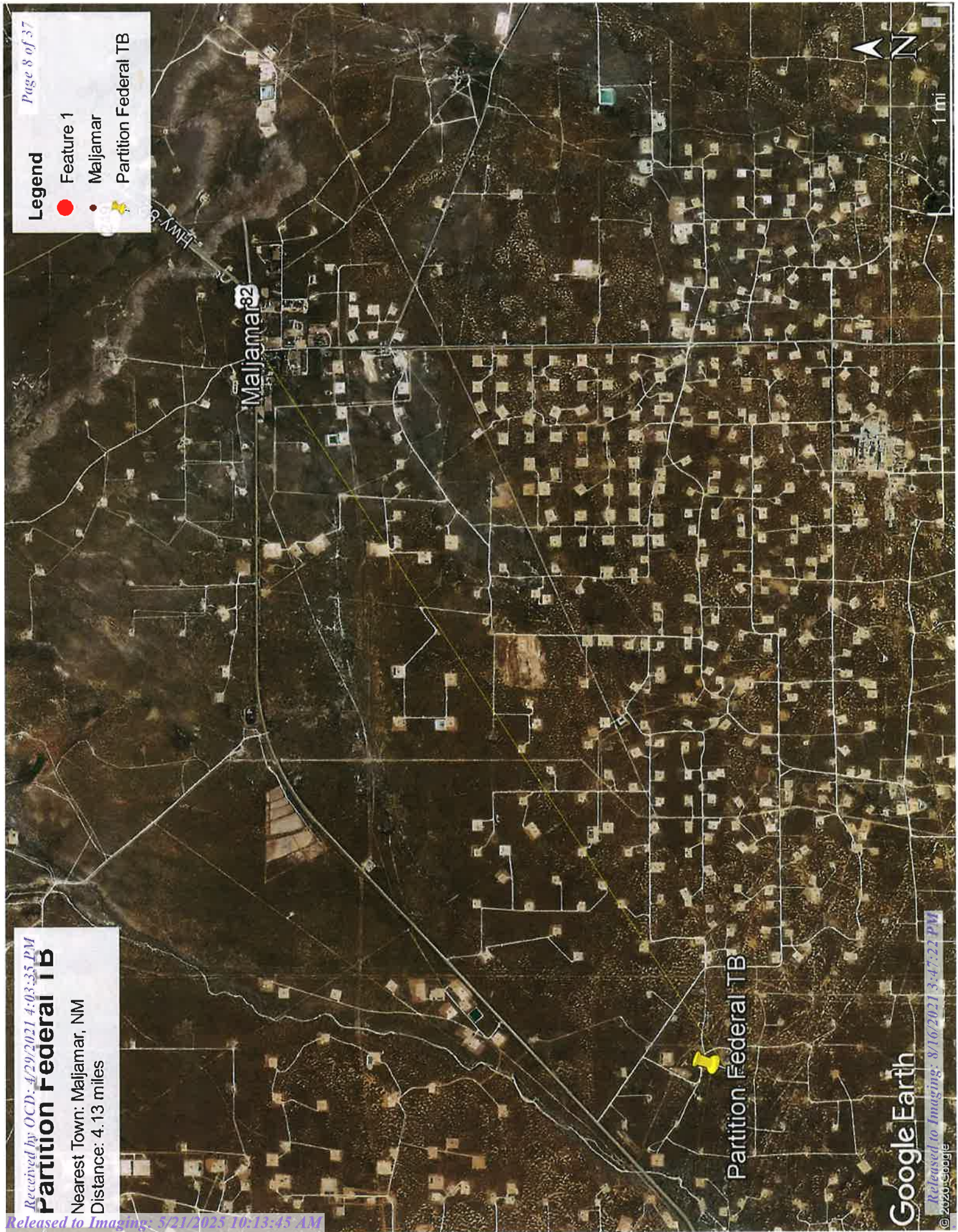
Attachment 4: Sampling to Compute a Nonparametric One-Sided Upper Tolerance Limit to Test that a Large Portion of a Room Surface Does Not Contain Contamination

## **ATTACHMENT 1**

## **ATTACHMENT 2**

| Closure Criteria Determination                |   |              |                                   |
|---|---|--------------|-----------------------------------|
| Site Name: Partition Federal TB               |   |              |                                   |
| Spill Coordinates: 32.823697, -103.822709     |   | X:           | Y:                                |
| Site Specific Conditions                      |   | Value        | Unit                              |
| 1   | Depth to Groundwater  | 0            | feet                              |
| 2   | Within 300 feet of any continuously flowing watercourse or any other significant watercourse  | 154,627      | feet                              |
| 3   | Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)   | 7,392        | feet                              |
| 4   | Within 300 feet from an occupied residence, school, hospital, institution or church   | 20,907       | feet                              |
| 5   | i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, <b>or</b>   | 20,907       | feet                              |
|   | ii) Within 1000 feet of any fresh water well or spring  | 20,907       | feet                              |
| 6   | Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves | No           | (Y/N)                             |
| 7   | Within 300 feet of a wetland  | 7,392        | feet                              |
| 8   | Within the area overlying a subsurface mine   | No           | (Y/N)                             |
| 9   | Within an unstable area (Karst Map)   |              | Critical<br>High<br>Medium<br>Low |
| 10  | Within a 100-year Floodplain  | >100         | year                              |
| NMAC 19.15.29.12 E (Table 1) Closure Criteria |   | <50'<br>>50' | <50'<br>51-100'<br>>100'          |





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**Partition Federal TB**  
Nearest Town: Maljamar, NM  
Distance: 4.13 miles





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[Contact USGS](#)  
[Search USGS](#)

## National Water Information System: Web Interface

USGS Water Resources

Data Category:

Site Information



Geographic Area:

United States



GO

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- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#)

## USGS 324649103504201 17S.31E.34

Available data for this site SUMMARY OF ALL AVAILABLE DATA

GO

### Well Site

#### DESCRIPTION:

Latitude 32°46'49", Longitude 103°50'42" NAD27  
Eddy County, New Mexico , Hydrologic Unit 13060011  
Well depth: 271 feet

#### AVAILABLE DATA:

| Data Type                                       | Begin Date                          | End Date   | Count |
|---|-------------------------------------|------------|-------|
| <a href="#">Field/Lab water-quality samples</a> | 1948-12-06                          | 1948-12-06 | 1     |
| <a href="#">Revisions</a>                       | Unavailable (site:0) (timeseries:0) |            |       |

#### OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center  
Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

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Title: NWIS Site Information for USA: Site Inventory



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USGS 324649103504201 17S.31E.34

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**URL: [https://waterdata.usgs.gov/nwis/inventory?](https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=324649103504201)  
**agency\_code=USGS&site\_no=324649103504201****

Page Contact Information: [New Mexico Water Data Support Team](#)

Page Last Modified: 2020-08-04 10:50:57 EDT

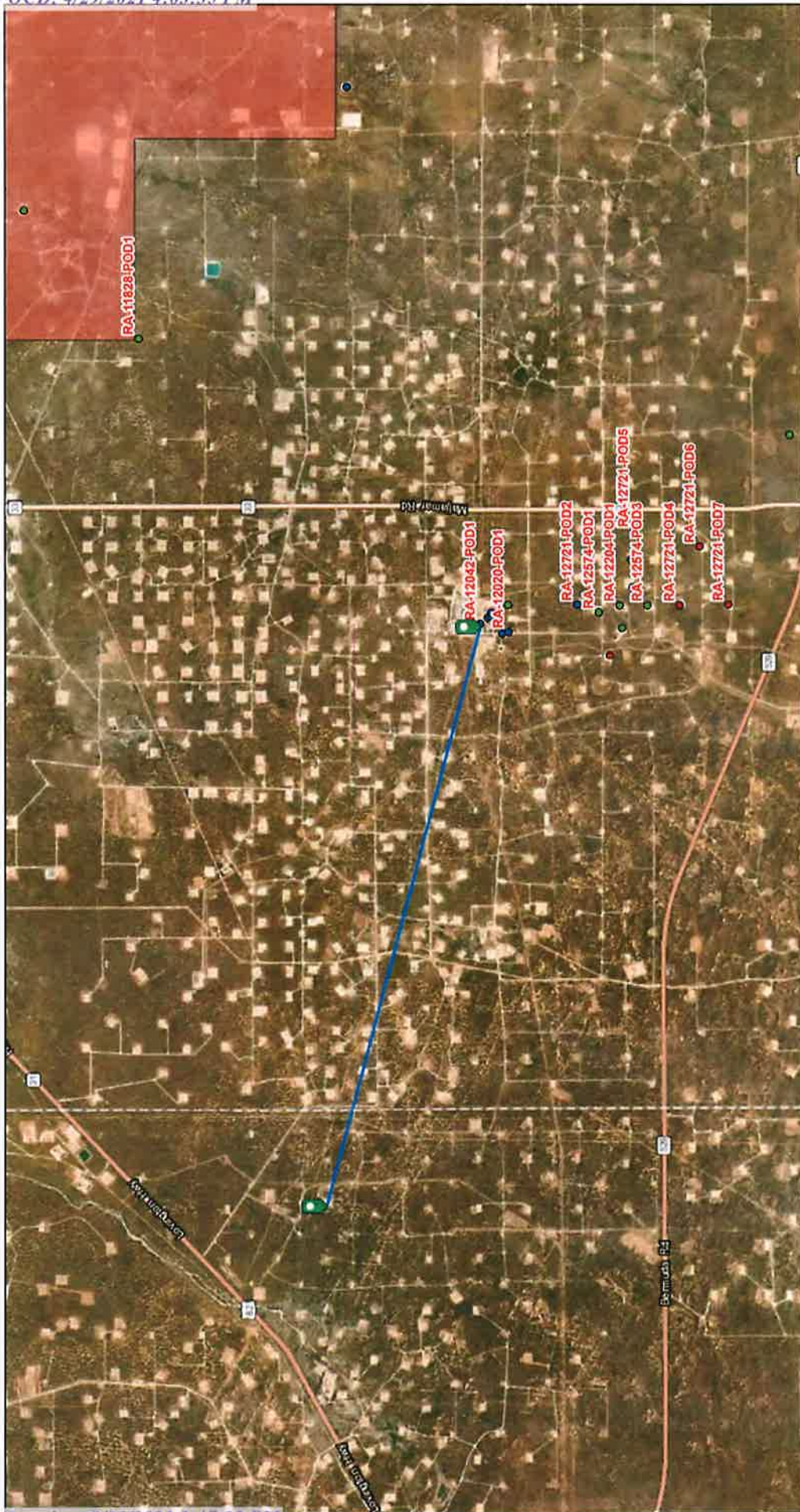
0.4 0.4 caww02



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Partition Federal TB



8/4/2020, 8:58:47 AM

Water Right Regulations

Critical Management Area - Guidelines

OSE District Boundary

GIS WATERS PODs

Active

Pending

Plugged

Conveyances

Acequia

Acequia Tunnel

Canal

Channel

Closed Drain

Community Ditch

Connector

Culvert

Ditch

Diversion Weir

Drain

Feeder

Interior Drain

Lateral

Pipe

Wasteway

Other

Unknown

Sources: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

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## New Mexico Office of the State Engineer

# Point of Diversion Summary

(quarters arc 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 12042 POD1 |            | 2   | 2   | 1  | 28  | 17S | 32E | 614891 | 3631181 |

|                          |                     |                             |                                 |
|--------------------------|---------------------|-----------------------------|---------------------------------|
| <b>Driller License:</b>  | 1261                | <b>Driller Company:</b>     | DARRELL CRASS DRILLING CO., INC |
| <b>Driller Name:</b>     | CRASS, DARRELL (LD) |                             |                                 |
| <b>Drill Start Date:</b> | 11/13/2013          | <b>Drill Finish Date:</b>   | 11/22/2013                      |
| <b>Log File Date:</b>    | 12/12/2013          | <b>PCW Rcv Date:</b>        |                                 |
| <b>Pump Type:</b>        |                     | <b>Pipe Discharge Size:</b> |                                 |
| <b>Casing Size:</b>      | 10.00               | <b>Depth Well:</b>          | 400 feet                        |
|                          |                     | <b>Plug Date:</b>           |                                 |
|                          |                     | <b>Source:</b>              |                                 |
|                          |                     | <b>Estimated Yield:</b>     |                                 |
|                          |                     | <b>Depth Water:</b>         |                                 |

| Water Bearing Stratifications: | Top | Bottom | Description                   |
|--------------------------------|-----|--------|-------------------------------|
|                                | 10  | 30     | Sandstone/Gravel/Conglomerate |

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


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POINT OF DIVERSION SUMMARY



## New Mexico Office of the State Engineer

# Point of Diversion Summary

|                                |            |                                    |        |                               |     |                       |     |         |   |
|--------------------------------|------------|------------------------------------|--------|-------------------------------|-----|-----------------------|-----|---------|---|
|                                |            | (quarters are 1=NW 2=NE 3=SW 4=SE) |        |                               |     | (NAD83 UTM in meters) |     |         |   |
|                                |            | (quarters are smallest to largest) |        |                               |     |                       |     |         |   |
| Well Tag                       | POD Number | Q64                                | Q16    | Q4                            | Sec | Tws                   | Rng | X       | Y   |
| RA 12521                       | POD1       | 3                                  | 3      | 4                             | 21  | 17S                   | 32E | 615127  | 3631271  |
| Driller License: 1456          |            | Driller Company:                   |        | WHITE DRILLING COMPANY        |     |                       |     |         |   |
| Driller Name: WHITE, JOHN W    |            |                                    |        |                               |     |                       |     |         |   |
| Drill Start Date: 07/21/2017   |            | Drill Finish Date:                 |        | 07/26/2017                    |     | Plug Date:            |     |         |   |
| Log File Date: 08/22/2017      |            | PCW Rev Date:                      |        |                               |     | Source:               |     | Shallow |   |
| Pump Type:                     |            | Pipe Discharge Size:               |        |                               |     | Estimated Yield:      |     |         |   |
| Casing Size: 2.00              |            | Depth Well:                        |        | 105 feet                      |     | Depth Water:          |     | 92 feet |   |
| Water Bearing Stratifications: |            | Top                                | Bottom | Description                   |     |                       |     |         |   |
|                                |            | 85                                 | 101    | Sandstone/Gravel/Conglomerate |     |                       |     |         |   |
|                                |            | 101                                | 105    | Sandstone/Gravel/Conglomerate |     |                       |     |         |   |
| Casing Perforations:           |            | Top                                | Bottom |                               |     |                       |     |         |   |
|                                |            | 75                                 | 105    |                               |     |                       |     |         |   |

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8/4/20 8:57 AM

POINT OF DIVERSION SUMMARY



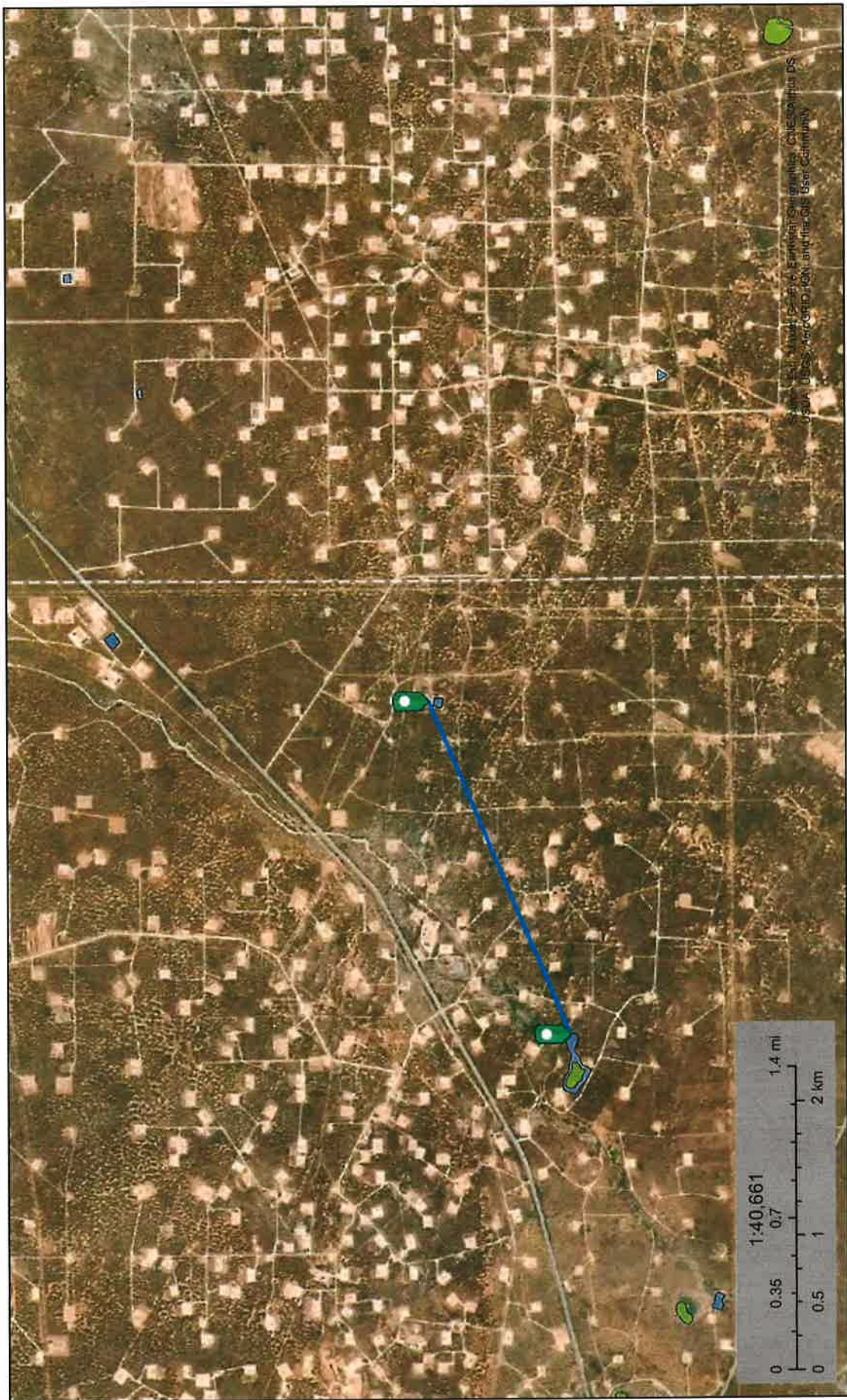
# Wetlands 1.4 miles away

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U.S. Fish and Wildlife Service



National Wetlands Inventory



August 4, 2020

## Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

## Freshwater Emergent Wetland

- Freshwater Forested/Shrub Wetland
- Freshwater Pond

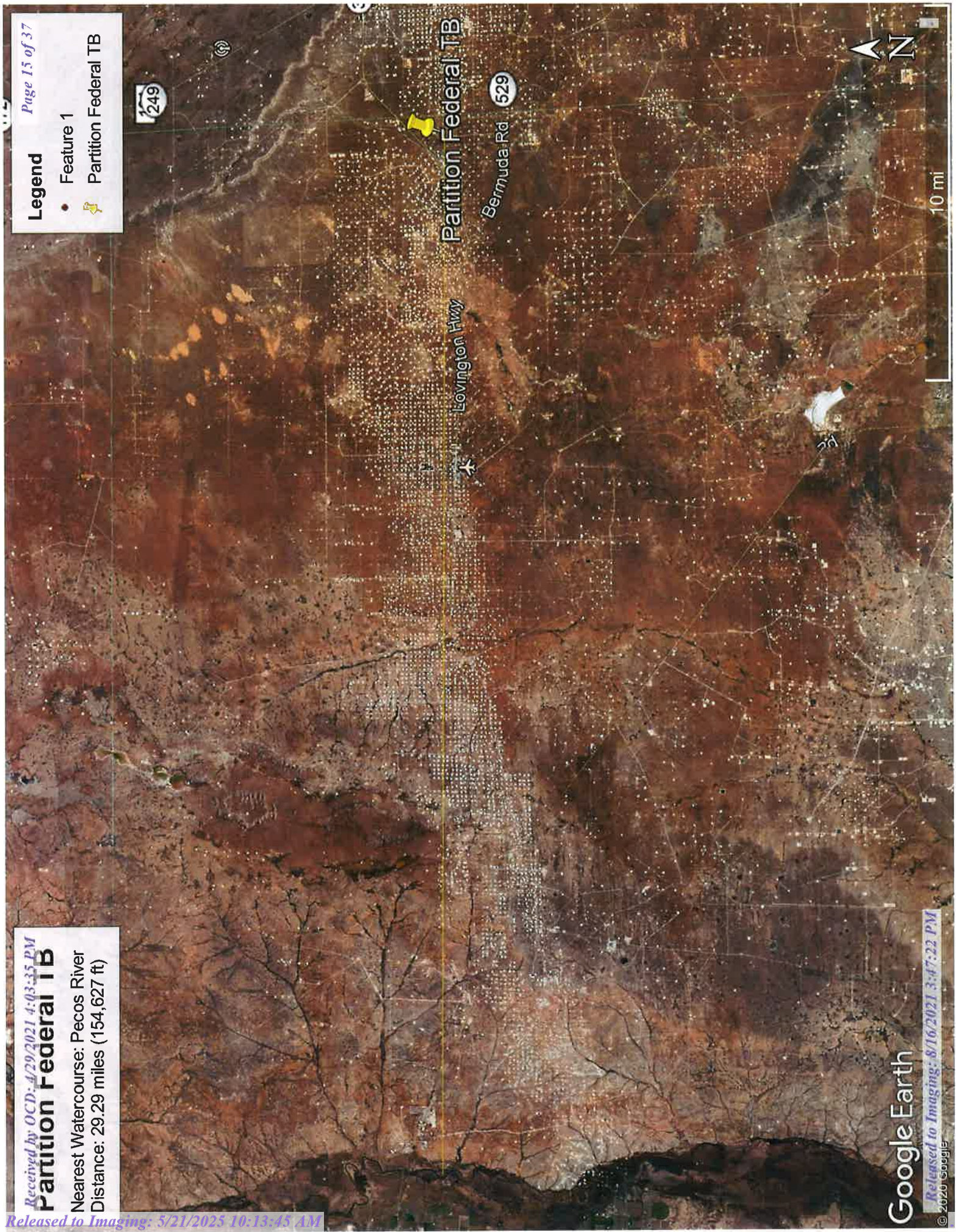
## Lake

- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper





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**Legend**

- Feature 1
- Partition Federal TB

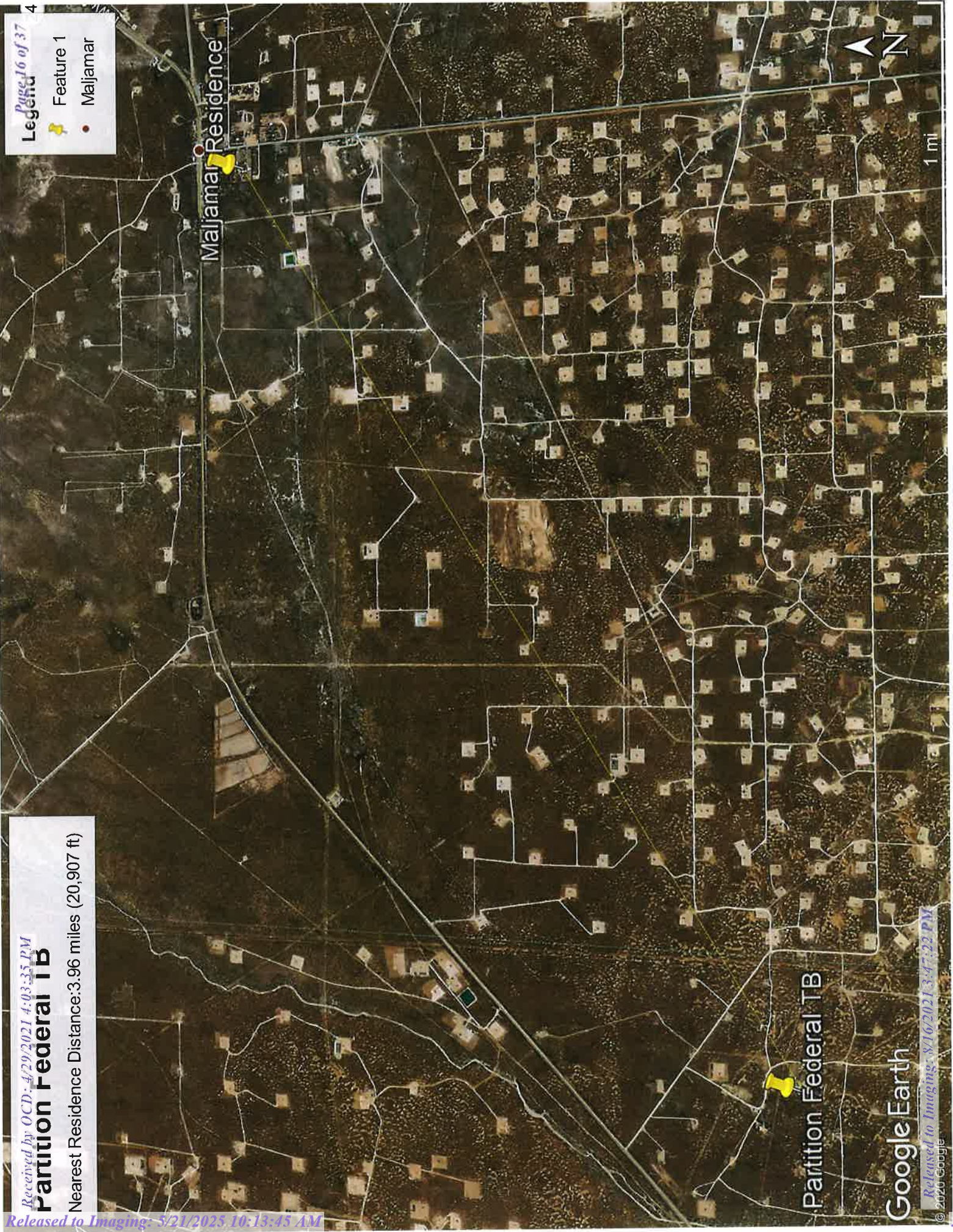
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**Partition Federal TB**

Nearest Watercourse: Pecos River

Distance: 29.29 miles (154,627 ft)



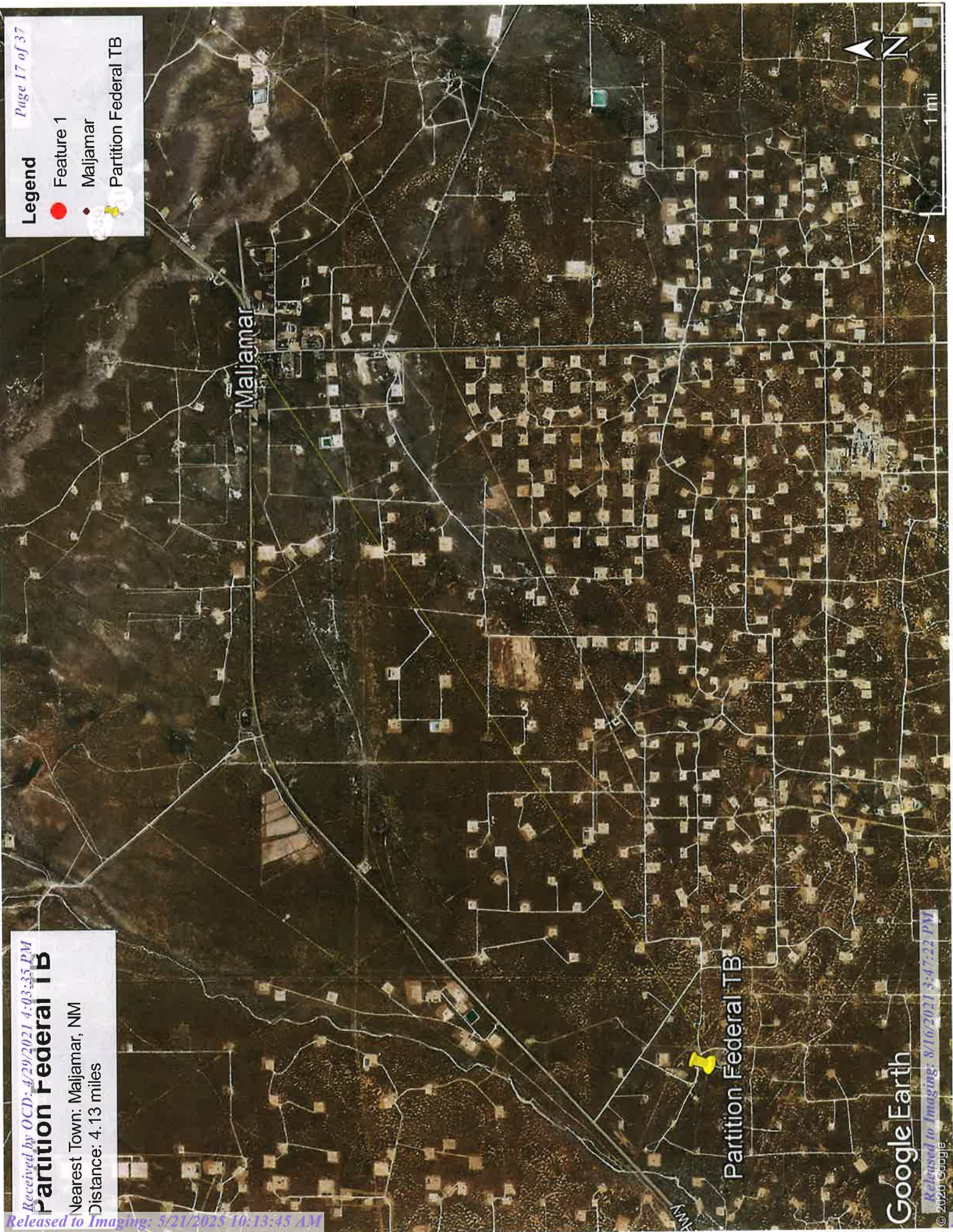


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**Partition Federal TB**

Nearest Residence Distance: 3.96 miles (20,907 ft)



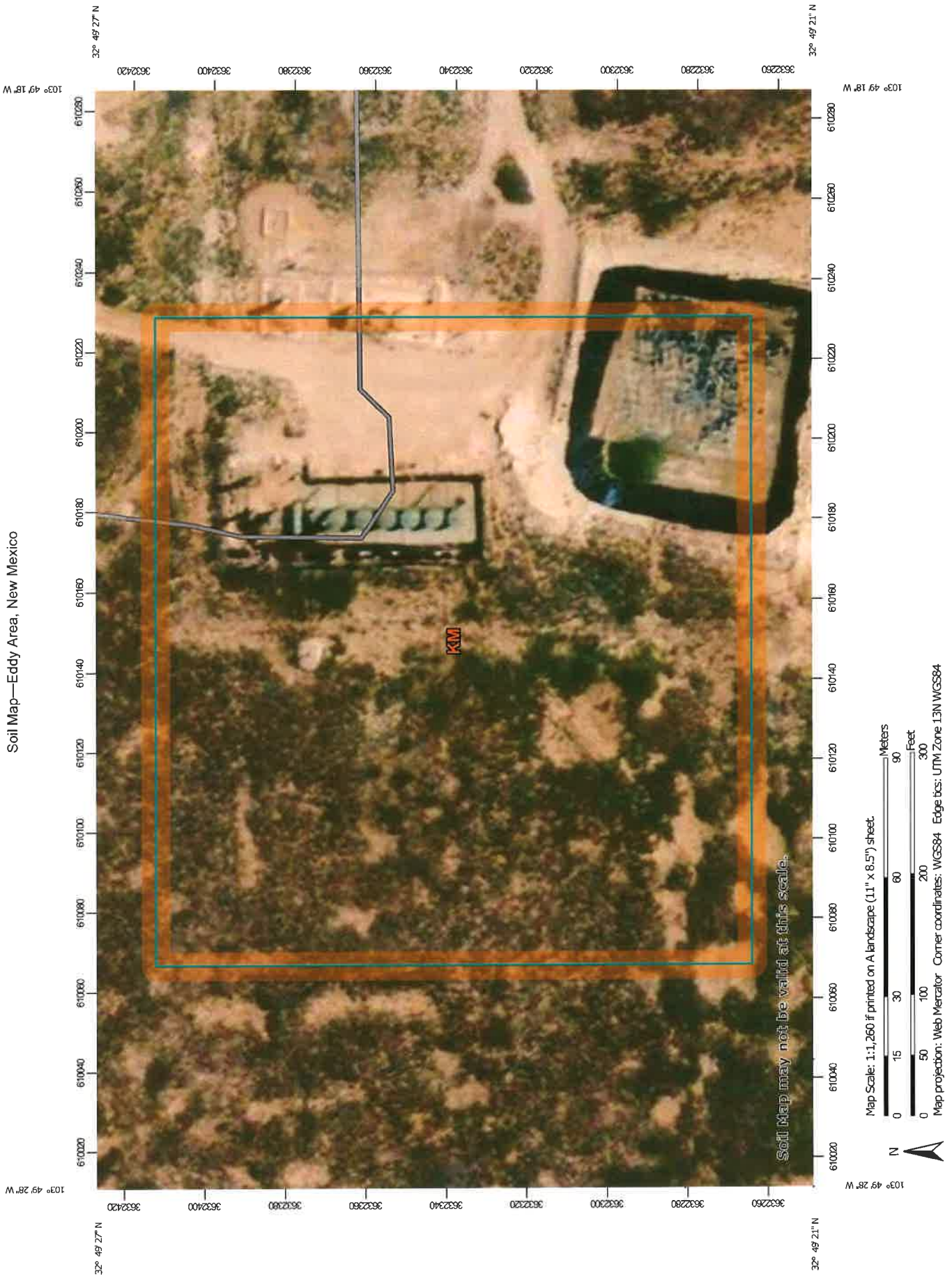


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**Partition Federal TB**  
Nearest Town: Maljamar, NM  
Distance: 4.13 miles

Partition Federal TB

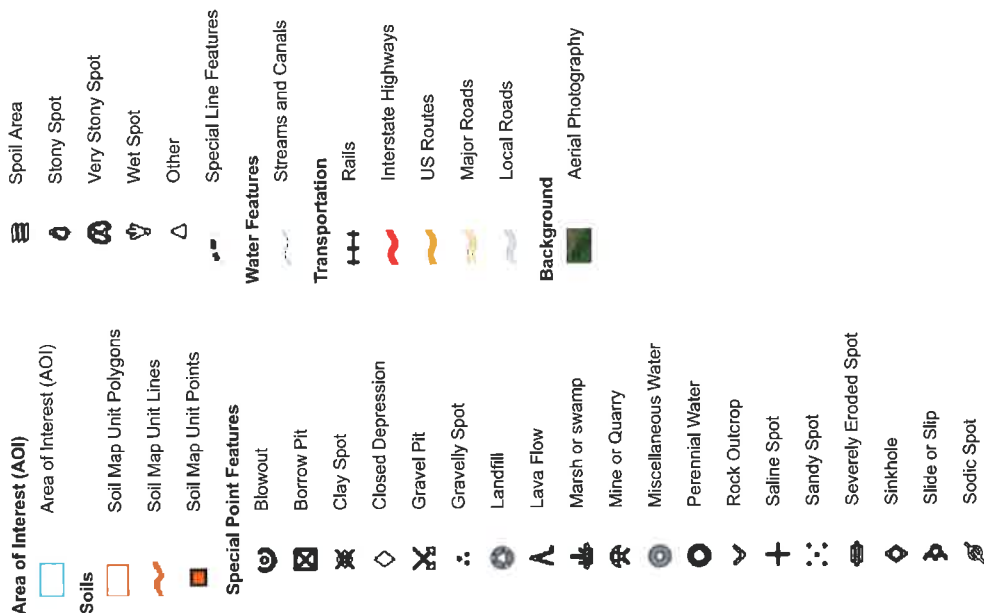
Google Earth





Soil Map—Eddy Area, New Mexico

## MAP LEGEND



## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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: Eddy Area, New Mexico  
Survey Area Data: Version 16, Jun 8, 2020

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

Date(s) aerial images were photographed: Sep 18, 2016—Nov 20, 2017

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.

Soil Map—Eddy Area, New Mexico

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## Map Unit Legend

| Map Unit Symbol             | Map Unit Name                                   | Acres in AOI | Percent of AOI |
|-----------------------------|---|--------------|----------------|
| KM                          | Kermit-Berino fine sands, 0 to 3 percent slopes | 6.0          | 100.0%         |
| Totals for Area of Interest |   | 6.0          | 100.0%         |



Map Unit Description: Kermit-Berino fine sands, 0 to 3 percent slopes---Eddy Area, New Mexico

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## Eddy Area, New Mexico

### KM—Kermit-Berino fine sands, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 1w4q  
*Elevation:* 3,100 to 4,200 feet  
*Mean annual precipitation:* 10 to 14 inches  
*Mean annual air temperature:* 60 to 64 degrees F  
*Frost-free period:* 190 to 230 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Kermit and similar soils:* 50 percent  
*Berino and similar soils:* 35 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Kermit

##### Setting

*Landform:* Alluvial fans, plains  
*Landform position (three-dimensional):* Rise, talf  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Linear  
*Parent material:* Mixed alluvium and/or eolian sands

##### Typical profile

*H1 - 0 to 7 inches:* fine sand  
*H2 - 7 to 60 inches:* fine sand

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Excessively drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* Very high (20.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline (0.0 to 1.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 1.0  
*Available water capacity:* Low (about 3.1 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* A  
*Ecological site:* R042XC005NM - Deep Sand  
*Hydric soil rating:* No

Map Unit Description: Kermit-Berino fine sands, 0 to 3 percent slopes---Eddy Area, New Mexico

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## Description of Berino

### Setting

*Landform:* Fan piedmonts, plains  
*Landform position (three-dimensional):* Riser  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Mixed alluvium and/or eolian sands

### Typical profile

*H1 - 0 to 17 inches:* fine sand  
*H2 - 17 to 50 inches:* fine sandy loam  
*H3 - 50 to 58 inches:* loamy sand

### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 40 percent  
*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 1.0  
*Available water capacity:* Moderate (about 7.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* 4e  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* B  
*Ecological site:* R042XC003NM - Loamy Sand  
*Hydric soil rating:* No

## Minor Components

### Active dune land

*Percent of map unit:* 15 percent  
*Hydric soil rating:* No

## Data Source Information

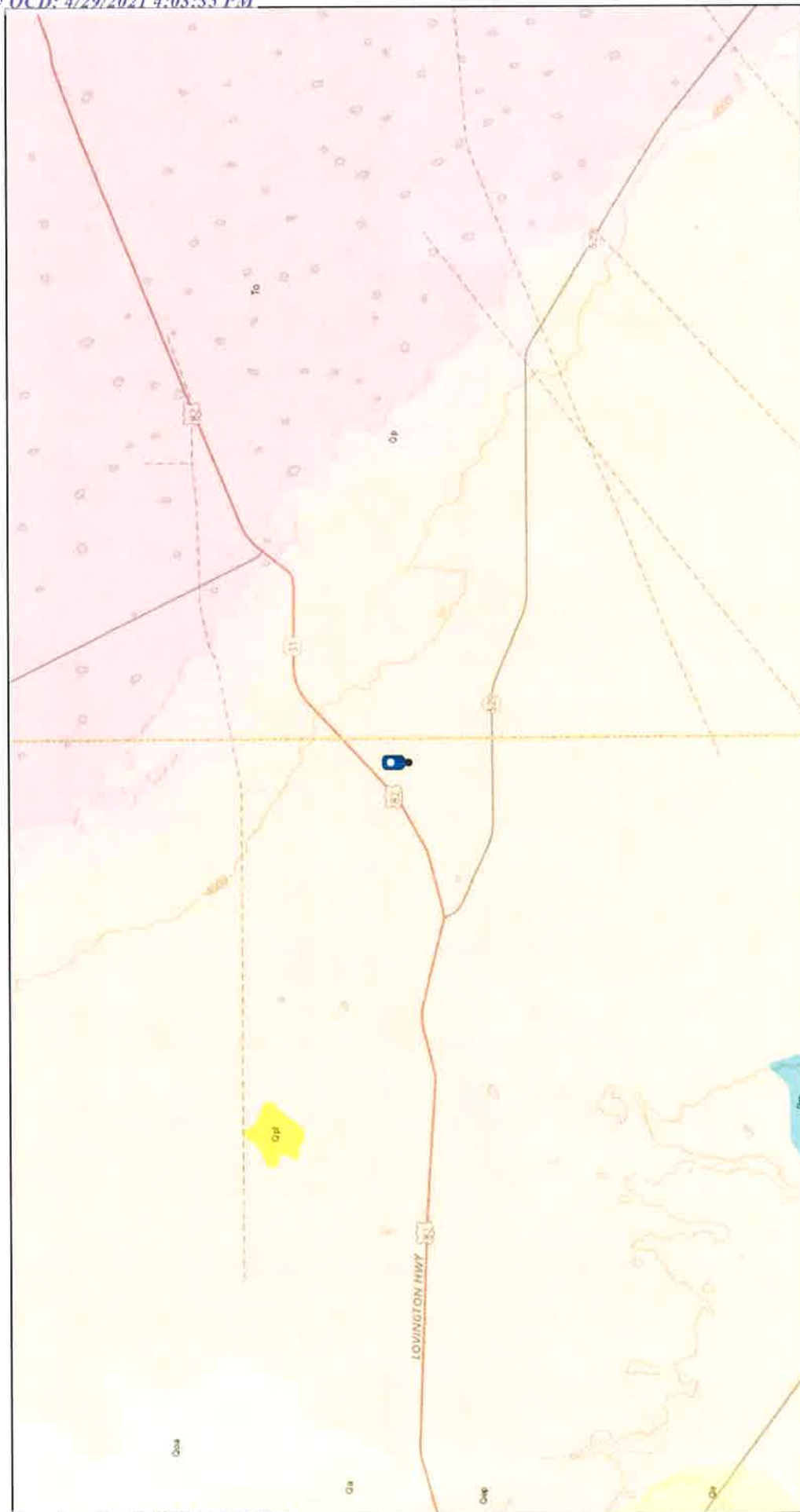
Soil Survey Area: Eddy Area, New Mexico  
Survey Area Data: Version 16, Jun 8, 2020



Received by OCD: 4/29/2021 4:03:35 PM

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# Partition Federal TB



1:144,448  
0 1.5 3 4.5 6 mi  
0 2.25 4.5 9 km

## STATEMAP (1993 to Present) [Publications]

8/2/2020, 4:33:02 PM

### Faults

- Fault, Exposed
- Fault, Intermittent
- Fault, Concealed
- ~ Shere Zone

### Dikes

- <all other values>
- Dike
- Dike intruding fault
- Volcanic Vents

### Mapping in Complete

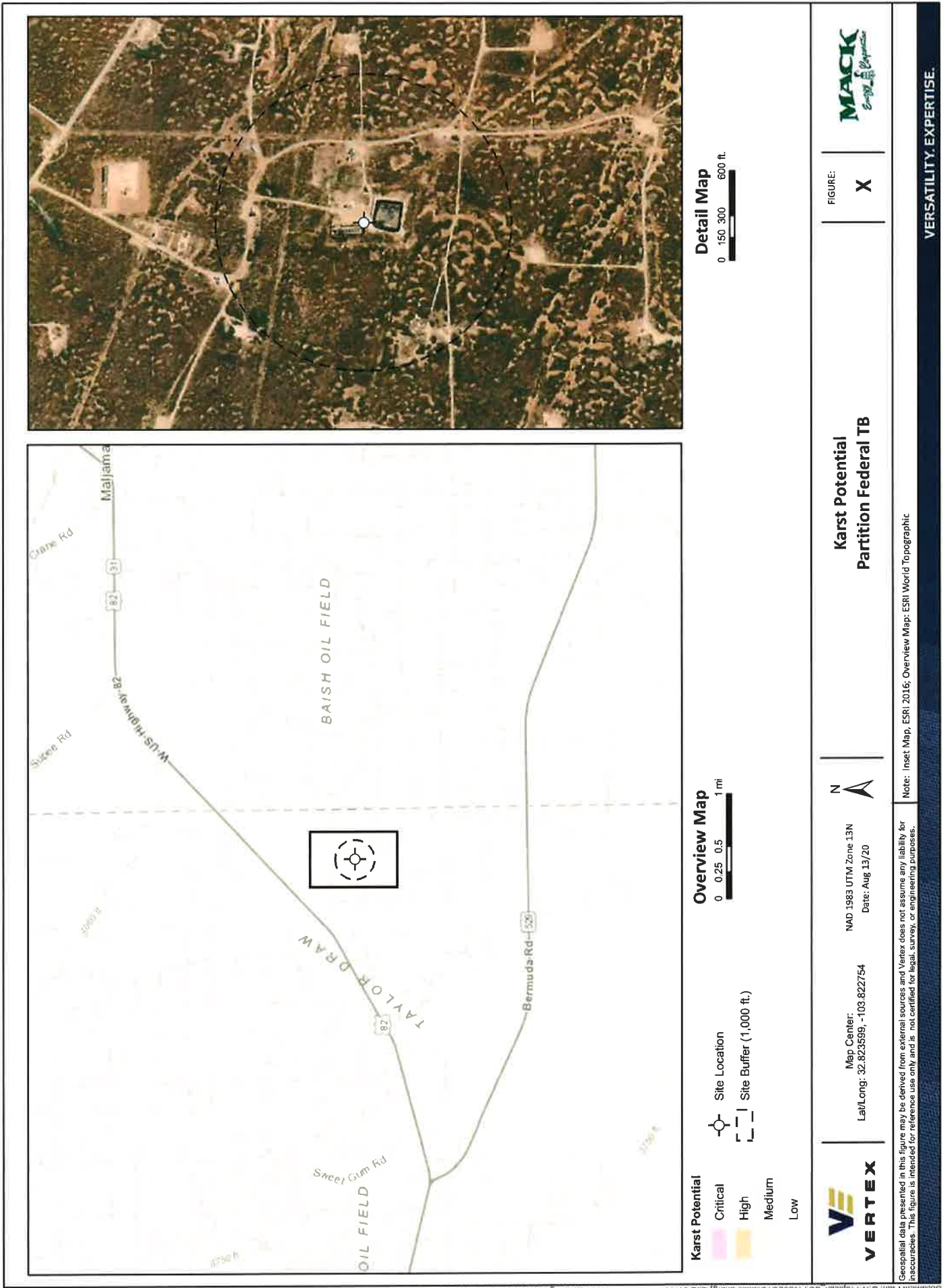
Mapping in Complete

### Mapping in Progress

Mapping in Progress

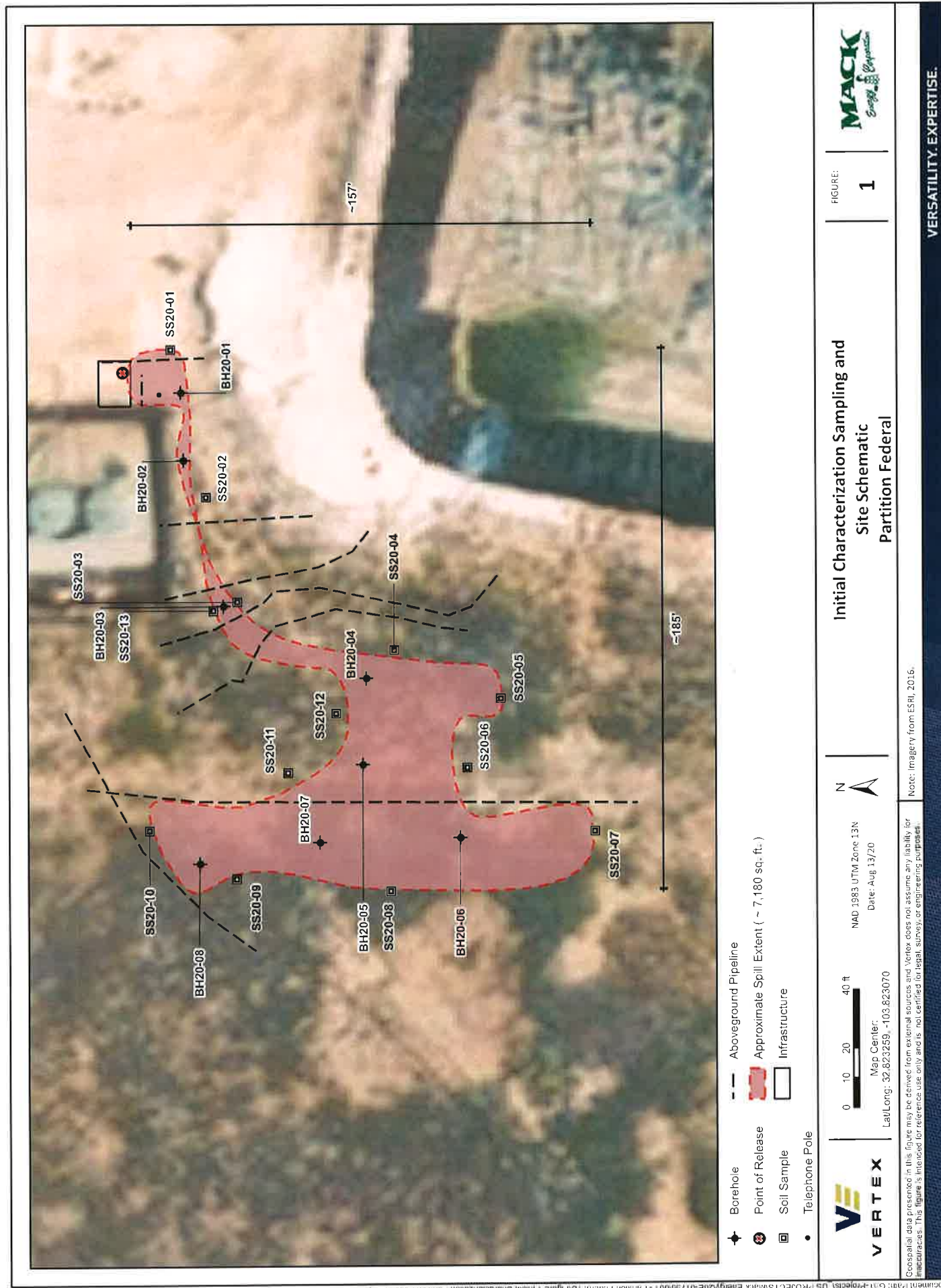
NMBCMR, USGS The National Map: National Boundaries Dataset, 30EP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset.

USGS The National Map: National Boundaries Dataset, 30EP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset. USGS Global Ecosystems, U.S. Census Bureau TIGER/Line Web AppBuilder for ArcGIS



## **ATTACHMENT 3**





Client Name: Mack Energy  
 Site Name: Partition Federal TB  
 NM OCD Tracking Number: NRM2008663010  
 Project #: 20E-01755-001  
 Lab Report: 2008126; 2008129; 2008257

| Sample Description |            |                | Field Screening                  |  |                                  | Petroleum Hydrocarbons |              |                               |                             |                                |             |                                    | Inorganic |
|--------------------|------------|----------------|----------------------------------|--|----------------------------------|------------------------|--------------|-------------------------------|-----------------------------|--------------------------------|-------------|------------------------------------|-----------|
| Sample ID          | Depth (ft) | Sample Date    | Volatile Organic Compounds (PID) | Extractable Organic Compounds (Petro Flag) | Inorganics (Electroconductivity) | Volatile               |              | Extractable                   |                             |                                |             |                                    | Chloride  |
|                    |            |                |                                  |  |                                  | Benzene                | BTEX (Total) | Gasoline Range Organics (GRO) | Diesel Range Organics (DRO) | Motor Oil Range Organics (MRO) | (GRO + DRO) | Total Petroleum Hydrocarbons (TPH) |           |
| BH20-01            | 0          | August 3, 2020 | odor                             | -  | <0                               | <0.0120                | <1.080       | <24.0                         | 6,300                       | 6,300                          | 6,300       | 12,600                             | 84        |
|                    | 1          | August 3, 2020 | -                                | 629  | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 3          | August 3, 2020 | -                                | 30   | <0                               | <0.023                 | <0.210       | <4.7                          | <9.5                        | <47                            | <14.2       | <61.2                              | <60       |
| BH20-02            | 0          | August 3, 2020 | odor                             | -  | 18                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 1          | August 3, 2020 | odor                             | EE   | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 2          | August 3, 2020 | -                                | 24   | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
| BH20-03            | 0          | August 3, 2020 | odor                             | -  | 50                               | <0.120                 | 1.350        | 46                            | 5,700                       | 4,000                          | 5,746       | 9,746                              | 140       |
|                    | 2          | August 3, 2020 | -                                | EE   | <0                               | <0.120                 | 3.220        | 150                           | 4,600                       | 1,800                          | 4,750       | 6,550                              | <60       |
|                    | 4          | August 3, 2020 | -                                | 22   | <0                               | <0.024                 | <0.217       | <4.8                          | <9.6                        | <48                            | <14.4       | <62.4                              | <60       |
| BH20-04            | 0          | August 3, 2020 | odor                             | -  | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 0.5        | August 3, 2020 | -                                | 1,111                                      | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 2          | August 3, 2020 | -                                | EE   | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
| BH20-05            | 0          | August 3, 2020 | -                                | 71   | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 0          | August 3, 2020 | odor                             | -  | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 1          | August 3, 2020 | odor                             | EE   | 20                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
| BH20-06            | 2          | August 3, 2020 | -                                | -  | 148                              | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 3          | August 3, 2020 | -                                | 32   | 330                              | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 0          | August 3, 2020 | odor                             | -  | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
| BH20-07            | 0.5        | August 3, 2020 | -                                | 233  | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 1          | August 3, 2020 | -                                | 33   | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 0          | August 3, 2020 | odor                             | -  | <0                               | <0.120                 | <1.080       | <24.0                         | 3,200                       | 2,200                          | 3,200       | 5,400                              | <60       |
| BH20-08            | 1          | August 3, 2020 | -                                | -  | <0                               | <0.024                 | <0.216       | <4.8                          | 83                          | 66                             | 83          | 149                                | <60       |
|                    | 2          | August 3, 2020 | -                                | 42   | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 3          | August 3, 2020 | -                                | 16   | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
| BH20-08            | 0          | August 3, 2020 | odor                             | -  | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 2          | August 3, 2020 | odor                             | EE   | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
|                    | 3          | August 3, 2020 | -                                | EE   | <0                               | <0.047                 | <0.427       | <9.5                          | 210                         | 540                            | 210         | 750                                | <60       |
| SS20-01            | 0-0.5      | August 3, 2020 | -                                | 87   | <0                               | <0.025                 | <0.221       | <4.9                          | 17                          | <47                            | 17          | 17                                 | <60       |
| SS20-02            | 0-0.5      | August 3, 2020 | -                                | 23   | <0                               | <0.024                 | <0.216       | <4.8                          | 15                          | <48                            | 15          | 15                                 | <60       |
| SS20-03            | 0-0.5      | August 3, 2020 | -                                | 84   | <0                               | <0.024                 | <0.220       | <4.9                          | 10                          | <49                            | 10          | 10                                 | <60       |
| SS20-04            | 0-0.5      | August 3, 2020 | -                                | 34   | <0                               | <0.024                 | <0.217       | <4.8                          | <9.4                        | <47                            | <14.2       | <61.2                              | <59       |
| SS20-05            | 0-0.5      | August 3, 2020 | -                                | 26   | <0                               | <0.024                 | <0.216       | <4.8                          | <10.0                       | <50                            | <14.8       | <64.8                              | <60       |
| SS20-06            | 0-0.5      | August 3, 2020 | -                                | 44   | <0                               | <0.025                 | <0.222       | <4.9                          | <10.0                       | <50                            | <14.9       | <64.9                              | <60       |
| SS20-07            | 0-0.5      | August 3, 2020 | -                                | 12   | <0                               | <0.024                 | <0.213       | <4.7                          | <10.0                       | <50                            | <14.7       | <64.7                              | <60       |
| SS20-08            | 0-0.5      | August 3, 2020 | -                                | 34   | <0                               | <0.024                 | <0.213       | <4.7                          | <9.4                        | <47                            | <14.1       | <61.1                              | 180       |
| SS20-09            | 0-0.5      | August 3, 2020 | -                                | -  | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
| SS20-10            | 0-0.5      | August 3, 2020 | -                                | 59   | <0                               | <0.025                 | <0.225       | <5.0                          | <9.4                        | <47                            | <14.4       | <61.4                              | <60       |
| SS20-11            | 0-0.5      | August 3, 2020 | -                                | -  | <0                               | -                      | -            | -                             | -                           | -                              | -           | -                                  | -         |
| SS20-12            | 0-0.5      | August 3, 2020 | -                                | 74   | <0                               | <0.025                 | <0.225       | <5.0                          | <9.4                        | <47                            | <14.4       | <61.4                              | <60       |
| SS20-13            | 0-0.5      | August 3, 2020 | -                                | 16   | <0                               | <0.024                 | <0.217       | <4.8                          | <10.0                       | <50                            | <14.8       | <64.8                              | <60       |

"-" - not applicable/analyzed

**Bold and shaded indicates exceedance outside of NM OCD Closure Criteria**



## **ATTACHMENT 4**

## Sampling to Compute a Nonparametric (Distribution-Free) One-Sided Upper Tolerance Limit to Test that a Large Portion of Room Surfaces Does Not Contain Contamination

### Summary

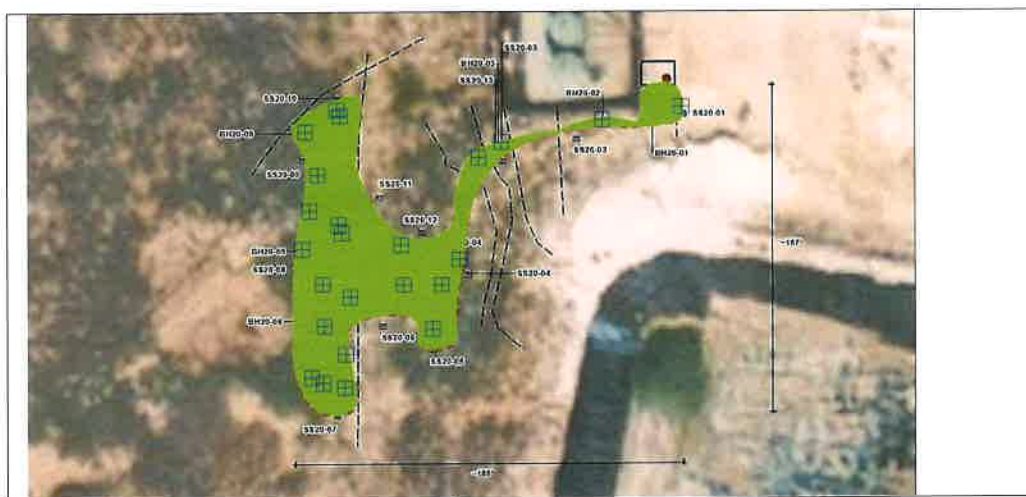
This report summarizes the sampling design developed by VSP based on inputs provided by the VSP user. The following table summarizes the sampling design developed by VSP. A figure that shows the sample placement on the map and a table that lists the sample locations are also provided below.

| SUMMARY OF SAMPLING DESIGN   |   |
|--|---|
| Primary Objective of Design  | Use a nonparametric (distribution-free) one-sided upper tolerance limit (UTL) to test if the true $P^{\text{th}}$ percentile of a population exceeds the action level |
| Required fraction of the population to be less than the action level | 0.9 (P=90)  |
| Required percent confidence on the decision made using the UTL       | 92%   |
| Method used to compute the number of samples, $n$                    | Hahn and Meeker (1991, page 169) (See equations below)  |
| Sample placement method  | Random point sampling in grids  |
| Calculated total number of samples                                   | 24  |
| Number of samples on map <sup>a</sup>                                | 24  |
| Number of selected sample areas that are not rooms                   | 1   |
| Total sampling surface area <sup>b</sup>                             | 7253.04 ft <sup>2</sup>   |
| Total cost of sampling <sup>c</sup>                                  | \$3,880.00  |

<sup>a</sup> This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas (rooms).

<sup>b</sup> This is the total surface area of all selected rooms and other selected sample areas on the map of the site.

<sup>c</sup> Including measurement analyses and fixed overhead costs. See the Cost of Sampling section for an explanation of the costs presented here.



Floor Plan Map

| Area: Area 1 |           |       |       |                |            |             |
|--------------|-----------|-------|-------|----------------|------------|-------------|
| X Coord      | Y Coord   | Label | Value | Type           | Historical | Sample Area |
| -395.6345    | -241.0326 |       |       | Random in Grid |            |             |

|           |           |                |  |  |
|-----------|-----------|----------------|--|--|
| -385.1186 | -243.3793 | Random in Grid |  |  |
| -401.2117 | -238.4361 | Random in Grid |  |  |
| -384.4843 | -226.6732 | Random in Grid |  |  |
| -395.0238 | -212.6156 | Random in Grid |  |  |
| -341.6694 | -214.0741 | Random in Grid |  |  |
| -395.7849 | -192.1013 | Random in Grid |  |  |
| -382.2142 | -198.2564 | Random in Grid |  |  |
| -355.9255 | -192.6360 | Random in Grid |  |  |
| -337.1245 | -192.4205 | Random in Grid |  |  |
| -405.8850 | -174.7934 | Random in Grid |  |  |
| -386.3554 | -166.7473 | Random in Grid |  |  |
| -357.2693 | -172.6373 | Random in Grid |  |  |
| -328.3676 | -179.9094 | Random in Grid |  |  |
| -402.1767 | -156.0708 | Random in Grid |  |  |
| -388.1061 | -162.7511 | Random in Grid |  |  |
| -398.1904 | -138.6383 | Random in Grid |  |  |
| -318.9554 | -130.1752 | Random in Grid |  |  |
| -404.1361 | -117.1911 | Random in Grid |  |  |
| -387.0845 | -109.1551 | Random in Grid |  |  |
| -307.5805 | -122.3610 | Random in Grid |  |  |
| -257.9580 | -111.4679 | Random in Grid |  |  |
| -388.7262 | -106.4213 | Random in Grid |  |  |
| -218.7856 | -104.9802 | Random in Grid |  |  |

### Primary Sampling Objective

The primary objective of this sampling effort is to make a decision whether an unacceptably large portion (fraction) of a specified surface area (target population) is contaminated above a specified action level (AL) or is otherwise defective. It is presumed that suitable actions have been identified to be implemented for either way the decision may go.

### Population Parameter of Interest

The population parameter of interest is the true  $P^{th}$  percentile of the population of contaminant concentrations, where  $0 < P < 100$ , in this case, the 90<sup>th</sup> percentile ( $P = 90$ ). The true  $P^{th}$  percentile is the value above which  $(100 - P)\%$  of the population lies and below which  $P\%$  of the population lies. The objective is to reject the null hypothesis if the true  $P^{th}$  percentile exceeds the specified action level (AL). But, the true  $P^{th}$  percentile will never be known with 100% confidence because all possible measurements from the population cannot be obtained. Hence the decision whether to reject the null hypothesis is made using the computed upper tolerance limit (UTL) for the  $P^{th}$  percentile, that is, by computing the upper  $100(1-\alpha)\%$  confidence limit on the  $P^{th}$  percentile (see Decision Rule below). For the current design  $\alpha$  is 0.08, which means that the decision will be made using the computed UTL for the 92% confidence limit on the 90<sup>th</sup> percentile.

### Hypothesis Being Tested

The null hypothesis (baseline assumption) is as follows:

$H_0$ : The true  $P^{th}$  percentile  $\leq$  AL

or equivalently,

$H_0$ : Less than  $P\%$  of the population  $<$  AL

The  $H_0$  is rejected if  $UTL < AL$ , in which case the alternative hypothesis ( $H_a$ ) is accepted as being true, where:

$H_a$ : More than  $P\%$  of the population  $<$  AL

### Sampling Design Options

VSP offers many options to determine the locations at which measurements are made or samples are collected and subsequently measured. For this design, random point sampling in grids was chosen. This option offers a good balance between providing information about the spatial structure of the potential contamination while ensuring all portions of the site are represented (though, not as thoroughly as systematic grid sampling). Knowledge of the spatial structure is useful for geostatistical analysis. This option also has the benefit of placing the exact number of samples required by the design.

### Decision Rule and Number of Samples, $n$

The null hypothesis is rejected and the alternative hypothesis is accepted if the nonparametric (distribution-free) UTL for the  $P^{th}$  percentile is less than the specified action level (AL). The nonparametric UTL is simply the maximum of the  $n$  measurements obtained from the population of interest, where  $n$  is computed using the following equation

$$n = \frac{\ln(\alpha)}{\ln(P/100)}$$

(from Hahn and Meeker 1991, page 169). These authors discuss the statistical meaning, use, and computation of nonparametric tolerance limits and the number of samples required (pages 91, 92, 169, and 326).

The following table displays the values of the input parameters used for this design:

| Parameter                 | Value     |
|---------------------------|-----------|
| <b>Input</b>              |           |
| $P$                       | 90        |
| $\alpha$                  | 0.08 (8%) |
| Confidence ( $1-\alpha$ ) | 92%       |
| <b>Output</b>             |           |
| $n$                       | 24        |

### Statistical Assumptions

1. Representative measurements have been obtained from a defined target population using simple random sampling or a systematic grid pattern that has a randomly selected starting location.
2. The  $n$  measurements are statistically independent, i.e., there is no spatial correlation (no spatial patterns) of contaminant levels throughout the target population.
3. The maximum of the  $n$  measurements is not an invalid value, i.e., it is not a mistake or an unacceptably uncertain value due to faulty sample handling, transport, treatment, storage, or measurement.

### Sensitivity Analysis

The sensitivity of the calculation of number of samples was explored by varying the required percent of the population to be less than the action level, and confidence level ( $1-\alpha$ ) (%). The following table shows the results of this analysis.

| Number of Samples |       |       |       |       |       |
|-------------------|-------|-------|-------|-------|-------|
|                   | CL=96 | CL=94 | CL=92 | CL=90 | CL=88 |
| P=85              | 20    | 18    | 16    | 15    | 14    |
| P=90              | 31    | 27    | 24    | 22    | 21    |
| P=95              | 63    | 55    | 50    | 45    | 42    |

P = Required Percent of the Population to be Less Than the Action Level.

CL = Confidence Level ( $1-\alpha$ ) (%)

### Cost of Sampling

The total cost of the completed sampling program depends on several cost inputs, some of which are fixed, and others that are based on the number of samples collected and measured. Based on the numbers of samples determined above, the estimated total cost of sampling and analysis at this site is \$3,880.00, which averages out to a per sample cost of \$161.67. The following table summarizes the inputs and resulting cost estimates.

| COST INFORMATION                           |              |                 |                   |
|--|--------------|-----------------|-------------------|
| Cost Details                               | Per Analysis | Per Sample      | 24 Samples        |
| Field collection costs                     |              | \$20.00         | \$480.00          |
| Analytical costs (Analyte 1)               | \$100.00     | \$100.00        | \$2,400.00        |
| <b>Sum of Field &amp; Analytical costs</b> |              | <b>\$120.00</b> | <b>\$2,880.00</b> |
| Fixed planning and validation costs        |              |                 | \$1,000.00        |
| <b>Total cost</b>                          |              |                 | <b>\$3,880.00</b> |

### Recommended Data Analysis Activities

Post data collection activities generally follow those outlined in EPA's Guidance for Data Quality Assessment (EPA, 2000). The data analysts should become familiar with the context of the problem and goals for data collection and assessment. The  $n$  data should be verified and validated before being used to test the null hypothesis. The VSP user should enter the validated and verified  $n$  data values into the VSP dialog box and click on appropriate tabs to obtain the following statistical summaries of the data. If there is strong evidence that the  $n$  data are normally distributed, the VSP user may want to use VSP to determine the number of samples,  $n$ , required to compute the normal distribution UTL and then use that UTL (rather than the nonparametric UTL) to test the null hypothesis.

**Summary statistics:**  $n$ , minimum and maximum of the  $n$  measurements, range of the  $n$  data, mean, median, standard deviation, variance, skewness, percentiles, and the interquartile range

**Statistical Tests of Normality Assumption:** Shapiro-Wilk test (if  $n \leq 50$ ) (Gilbert 1987), Lilliefors test (if  $n > 50$ ) (EPA 2000).

**Graphical Displays of the Data:** Histogram, box-and-whisker plots and quantile-quantile (probability) plots (EPA 2000).

### References

EPA. 2000. *Guidance for Data Quality Assessment, Practical Methods for Data Analysis*, EPA QA/G-9, EPA/600/R-96/084, July 2000, Office of Environmental Information, U.S. Environmental Protection Agency.

Gilbert, R.O. 1987. *Statistical Methods for Environmental Pollution Monitoring*, Wiley & Sons, New York, NY.

Hahn, G.J. and W.Q. Meeker. 1991. *Statistical Intervals*. Wiley & Sons, Inc, New York, NY.

### A

This report was automatically produced\* by Visual Sample Plan (VSP) software version 7.12a.

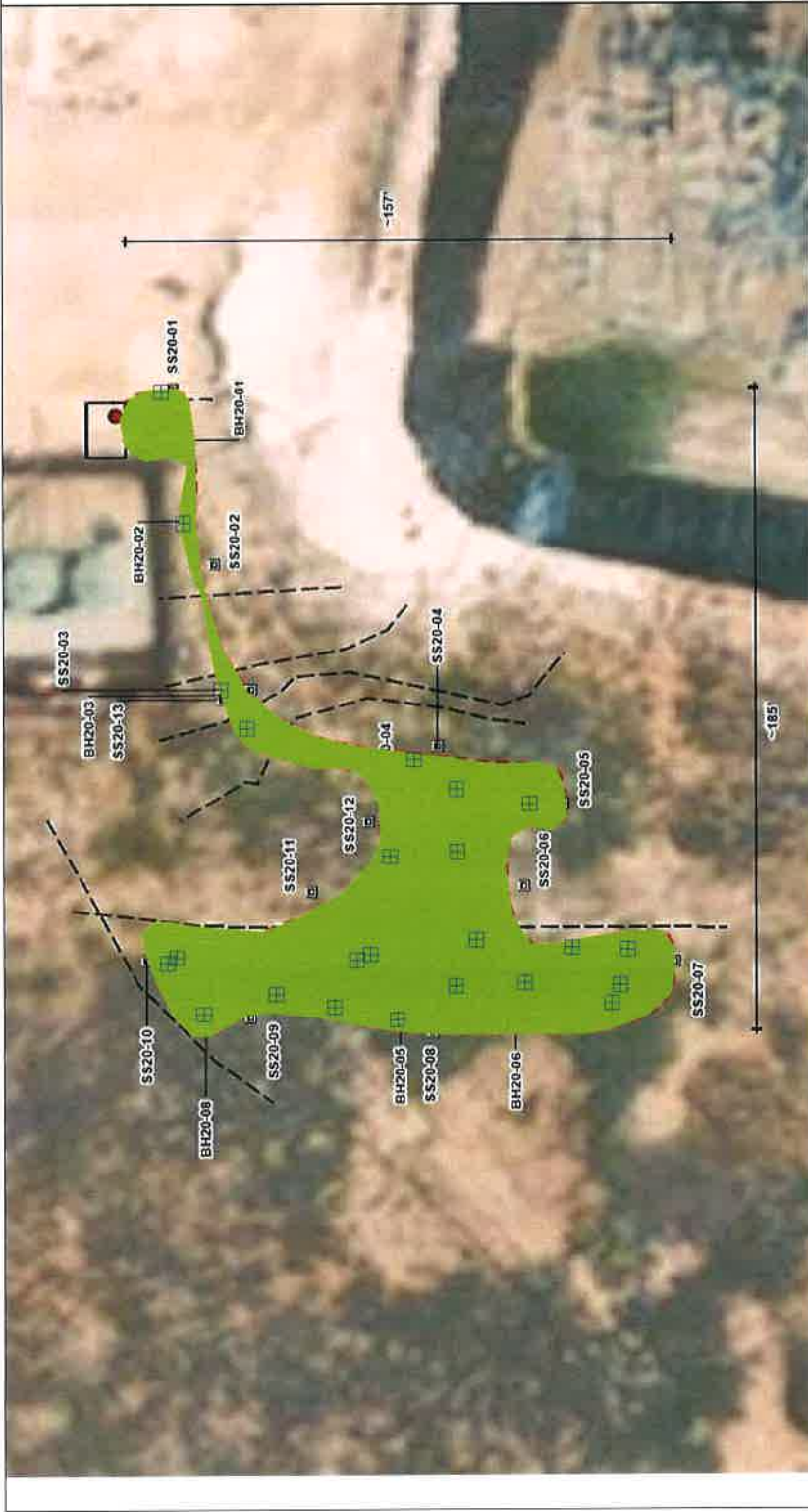
This design was last modified 12/8/2020 3:30:29 PM.

Software and documentation available at <http://vsp.pnnl.gov>

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\* - The report contents may have been modified or reformatted by end-user of software.





Received by OCD: 4/29/2021 4:03:35 PM  
Form C-141

State of New Mexico

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Page 3

Oil Conservation Division

|                |               |
|----------------|---------------|
| Incident ID    | NRM2008663010 |
| District RP    | 2             |
| Facility ID    |               |
| Application ID |               |

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

|   |   |
|---|---|
| What is the shallowest depth to groundwater beneath the area affected by the release?   | <u>      &lt;50      </u> (ft bgs)                                  |
| Did this release impact groundwater or surface water?   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within 300 feet of a wetland?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying a subsurface mine?   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release overlying an unstable area such as karst geology?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Are the lateral extents of the release within a 100-year floodplain?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

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

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

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

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

State of New Mexico

Oil Conservation Division

|                |               |
|----------------|---------------|
| Incident ID    | NRM2014054256 |
| District RP    | 2             |
| Facility ID    |               |
| Application ID |               |

Printed Name: Matt Buckles Title: Environmental

Signature: Matt Buckles Date: 12/9/2020

email: mattbuckles@mec.com Telephone: 575-748-1288

**OCD Only**

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



Received by OCD: 4/29/2021 4:03:35 PM  
Form C-141State of New Mexico  
Oil Conservation Division

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|                |               |
|----------------|---------------|
| Incident ID    | NRM2008663010 |
| District RP    | 2             |
| Facility ID    |               |
| Application ID |               |

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: \_\_\_\_\_ Matt Buckles \_\_\_\_\_ Title: \_\_\_\_\_ Environmental \_\_\_\_\_

Signature: \_\_\_\_\_ Matt Buckles \_\_\_\_\_ Date: \_\_\_\_\_ 12/9/2020 \_\_\_\_\_

email: \_\_\_\_\_ mattbuckles@mec.com \_\_\_\_\_ Telephone: \_\_\_\_\_ 575-748-1288 \_\_\_\_\_

**OCD Only**

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

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Received by OCD: 4/29/2021 4:03:35 PM  
Form C-141State of New Mexico  
Oil Conservation Division

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|                |               |
|----------------|---------------|
| Incident ID    | NRM2008663010 |
| District RP    | 2             |
| Facility ID    |               |
| Application ID |               |

## Remediation Plan

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Printed Name:           Matt Buckles           Title:           Environmental          Signature:           Matt Buckles           Date:           12/9/2020          email:           mattbuckles@mec.com           Telephone:           575-748-1288          **OCD Only**Received by:           Robert Hamlet           Date:           8/16/2021          ☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature:           Robert Hamlet           Date:           8/16/2021

Received by OCD: 4/29/2021 4:03:35 PM

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

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

CONDITIONS

Action 26389

**CONDITIONS**

|  |   |
|--|---|
| Operator:<br><br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br><br>13837   |
|  | Action Number:<br><br>26389                                   |
|  | Action Type:<br><br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**



| Created By | Condition  | Condition Date |
|------------|--|----------------|
| rhamiel    | The Workplan/Remediation Plan is approved with the following conditions: Sidewall/floor samples need to comply with the strictest closure criteria limits 600 mg/kg for Chlorides and 100 mg/kg TPH. | 8/16/2021      |



**MACK ENERGY**

PARTITION FEDERAL  
IMPACT MAP

**Legend**

-  PARTITION FED- 8,814 SQFT
-  PARTITION FEDERAL




PARTITION FEDERAL



**MACK ENERGY**

PARTITION FEDERAL  
SITE MAP

**Legend**

 PARTITION FEDERAL

PARTITION FEDERAL



400 ft



## 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---Eddy Area, New Mexico

Partition Federal

| Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition--Eddy Area, New Mexico |   |                             |             |                  |  |             |            |                   |
|--|---|-----------------------------|-------------|------------------|--|-------------|------------|-------------------|
| 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 |                   |
| BP—Berino-Pajarito complex, 0 to 3 percent slopes, eroded  |   |                             |             |                  |  |             |            |                   |
| Berino   | Loamy Sand (R070BD003NM)                            | 1,800                       | —           | 650              | other perennial grasses                                  | 25          |            |                   |
|  |   |                             |             |                  | black grama  | 15          |            |                   |
|  |   |                             |             |                  | other perennial forbs                                    | 15          |            |                   |
|  |   |                             |             |                  | dropseed   | 10          |            |                   |
|  |   |                             |             |                  | little bluestem  | 10          |            |                   |
|  |   |                             |             |                  | other shrubs   | 10          |            |                   |
|  |   |                             |             |                  | bush muhly   | 5           |            |                   |
|  |   |                             |             |                  | cane bluestem  | 5           |            |                   |
|  |   |                             |             |                  | Havard's oak   | 5           |            |                   |
| Pajarito   | Loamy Sand (R070BD003NM)                            | 1,800                       | —           | 650              | black grama  | 15          |            |                   |
|  |   |                             |             |                  | other perennial forbs                                    | 15          |            |                   |
|  |   |                             |             |                  | dropseed   | 10          |            |                   |
|  |   |                             |             |                  | little bluestem  | 10          |            |                   |
|  |   |                             |             |                  | other perennial grasses                                  | 10          |            |                   |
|  |   |                             |             |                  | rabo de ardilla  | 10          |            |                   |
|  |   |                             |             |                  | bush muhly   | 5           |            |                   |
|  |   |                             |             |                  | cane bluestem  | 5           |            |                   |
|  |   |                             |             |                  | fall witchgrass  | 5           |            |                   |
|  |   |                             |             |                  | Havard's oak   | 5           |            |                   |
|  |   |                             |             |                  | other shrubs   | 5           |            |                   |
|  |   |                             |             |                  | sand sagebrush   | 5           |            |                   |



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

6/3/2024  
Page 4 of 6



## Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition---Eddy Area, New Mexico

Partition Federal

| Rangeland and Forest Vegetation Classification, Productivity, and Plant Composition--Eddy Area, New Mexico |   |                             |             |                  |  |             |            |                   |
|--|---|-----------------------------|-------------|------------------|--|-------------|------------|-------------------|
| 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 |                   |
| KM—Kermit-Berino fine sands, 0 to 3 percent slopes   |   |                             |             |                  |  |             |            |                   |
| Kermit   | Deep Sand (R070BD005NM)                             | 2,000                       | —           | 600              | dropseed   | 30          |            |                   |
|  |   |                             |             |                  | other perennial forbs                                    | 15          |            |                   |
|  |   |                             |             |                  | giant dropseed   | 10          |            |                   |
|  |   |                             |             |                  | other shrubs   | 10          |            |                   |
|  |   |                             |             |                  | common sunflower   | 5           |            |                   |
|  |   |                             |             |                  | Havard's oak   | 5           |            |                   |
|  |   |                             |             |                  | little bluestem  | 5           |            |                   |
|  |   |                             |             |                  | other perennial grasses                                  | 5           |            |                   |
|  |   |                             |             |                  | sand bluestem  | 5           |            |                   |
|  |   |                             |             |                  | threeawn   | 5           |            |                   |
|  |   |                             |             |                  | yucca  | 5           |            |                   |
|  |   |                             |             |                  | penstemon  | 2           |            |                   |
| Berino   | Loamy Sand (R070BD003NM)                            | 1,800                       | —           | 650              | other perennial grasses                                  | 25          |            |                   |
|  |   |                             |             |                  | black grama  | 15          |            |                   |
|  |   |                             |             |                  | other perennial forbs                                    | 15          |            |                   |
|  |   |                             |             |                  | dropseed   | 10          |            |                   |
|  |   |                             |             |                  | little bluestem  | 10          |            |                   |
|  |   |                             |             |                  | other shrubs   | 10          |            |                   |
|  |   |                             |             |                  | bush muhly   | 5           |            |                   |
|  |   |                             |             |                  | cane bluestem  | 5           |            |                   |
|  |   |                             |             |                  | Havard's oak   | 5           |            |                   |



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

6/3/2024  
Page 5 of 6

## Data Source Information

Soil Survey Area: Eddy Area, New Mexico

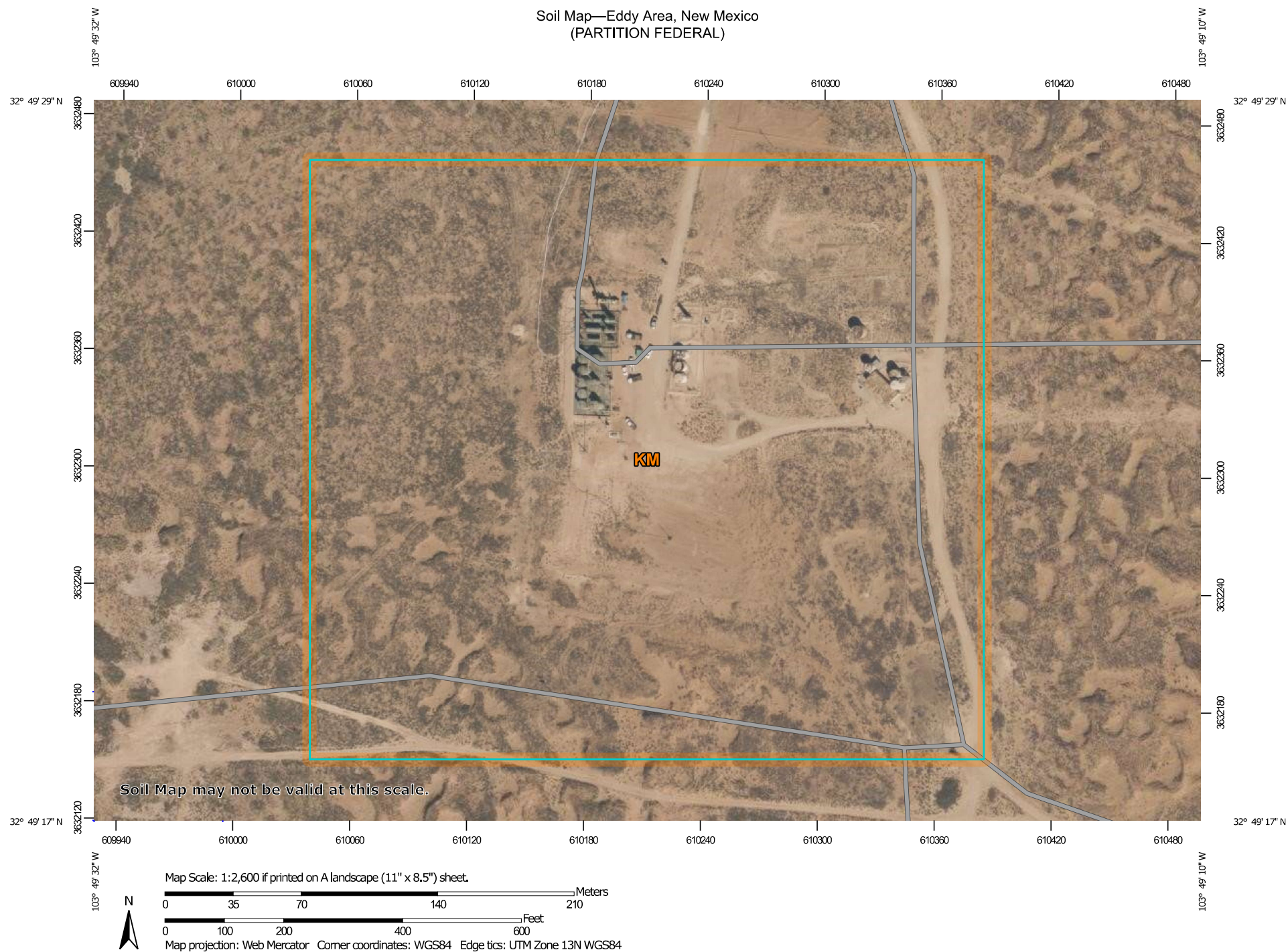
Survey Area Data: Version 19, Sep 7, 2023



**Natural Resources  
Conservation Service**

Web Soil Survey  
National Cooperative Soil Survey


6/3/2024  
Page 6 of 6

Soil Map—Eddy Area, New Mexico  
(PARTITION FEDERAL)Natural Resources  
Conservation ServiceWeb Soil Survey  
National Cooperative Soil Survey5/30/2024  
Page 1 of 3

Soil Map—Eddy Area, New Mexico  
(PARTITION FEDERAL)


## 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 1:20,000.

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: Eddy Area, New Mexico

Survey Area Data: Version 19, 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: Feb 7, 2020—May 12, 2020

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 |
|-----------------------------|---|--------------|----------------|
| KM                          | Kermit-Berino fine sands, 0 to 3 percent slopes | 26.3         | 100.0%         |
| Totals for Area of Interest |   | 26.3         | 100.0%         |

# National Flood Hazard Layer FIRMette



103°49'41"W 32°49'41"N



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

1:6,000

103°49'3"W 32°49'10"N

## Legend

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

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



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/3/2024 at 7:41 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



**Legend**

- High
- Low
- MACK ENERGY PARTITION FEDERAL
- Medium





**MACK ENERGY**

PARTITION FEDERAL  
WATERCOURSE MAP

**Legend**

- Conoco Pond
- PARTITION FEDERAL







# 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                           |      |       |         |        |      |   |     |     |     |     |        |          |            |             |               |            |             |         | License Number      |      |
|-------------------------------|------|-------|---------|--------|------|---|-----|-----|-----|-----|--------|----------|------------|-------------|---------------|------------|-------------|---------|---------------------|------|
| Sub- q q q                    |      |       |         |        |      |   |     |     |     |     |        |          |            |             |               |            |             |         |                     |      |
| POD Number                    | Code | basin | County  | Source | 6416 | 4 | Sec | Tws | Rng | X   | Y      | Distance | Start Date | Finish Date | Log File Date | Depth Well | Depth Water | Driller | License Number      |      |
| <a href="#">RA 13234 POD1</a> | RA   | LE    | Shallow |        | 1    | 4 | 1   | 19  | 17S | 32E | 611435 | 3632294  |            | 1237        | 10/20/2022    | 10/20/2022 | 11/04/2022  | 104     | JACKIE D. ATKINS    | 1249 |
| <a href="#">RA 13286 POD1</a> | RA   | ED    |         |        | 2    | 4 | 4   | 12  | 17S | 31E | 610742 | 3634697  |            | 2403        | 03/23/2023    | 03/23/2023 | 06/27/2023  | 101     | JACKIE ATKINS       | 1249 |
| <a href="#">RA 13324 POD1</a> | RA   | ED    |         |        | 4    | 4 | 1   | 10  | 17S | 31E | 606711 | 3635310  |            | 4571        | 05/08/2023    | 05/11/2023 | 06/15/2023  | 55      | JOHN W WHITE        | 1456 |
| <a href="#">RA 10175</a>      | RA   | LE    | Shallow |        | 2    | 1 |     | 28  | 17S | 32E | 614814 | 3631005* |            | 4808        | 02/04/2002    | 02/04/2002 | 03/06/2002  | 158     | EADES, ALAN         | 1044 |
| <a href="#">RA 12020 POD1</a> | RA   | LE    | Shallow |        | 2    | 2 | 1   | 28  | 17S | 32E | 614828 | 3630954  |            | 4836        | 09/24/2013    | 09/25/2013 | 10/07/2013  | 120     | 81 WHITE, JOHN (LD) | 1456 |
| <a href="#">RA 12042 POD1</a> | RA   | LE    |         |        | 2    | 2 | 1   | 28  | 17S | 32E | 614891 | 3631181  |            | 4836        | 11/13/2013    | 11/22/2013 | 12/12/2013  | 400     | CRASS, DARRELL (LD) | 1261 |
| <a href="#">RA 12522 POD1</a> | RA   | LE    | Shallow |        | 3    | 3 | 4   | 21  | 17S | 32E | 614941 | 3631122  |            | 4899        | 07/25/2017    | 07/26/2017 | 08/22/2017  | 100     | WHITE, JOHN W       | 1456 |
| <a href="#">RA 12522 POD2</a> | RA   | LE    | Shallow |        | 2    | 2 | 1   | 28  | 17S | 32E | 614949 | 3631098  |            | 4913        | 07/24/2017    | 07/26/2017 | 08/22/2017  | 100     | WHITE, JOHN W       | 1456 |
| <a href="#">RA 12522 POD3</a> | RA   | LE    | Shallow |        | 4    | 4 | 3   | 28  | 17S | 32E | 614980 | 3631093  |            | 4945        | 07/20/2017    | 07/26/2017 | 08/22/2017  | 100     | WHITE, JOHN W       | 1456 |
| <a href="#">RA 12721 POD1</a> | RA   | LE    |         |        | 3    | 2 | 3   | 28  | 17S | 32E | 614645 | 3630141  |            | 4966        | 04/18/2019    | 04/19/2019 | 05/15/2019  | 125     | JOHN W WHITE        | 1456 |

Record Count: 10

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 610199

**Northing (Y):** 3632356

**Radius:** 5000

\*UTM location was derived from PLSS - see Help


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6/3/24 9:07 AM

Page 1 of 1

WELLS WITH WELL LOG INFORMATION

# Point of Diversion Summary

| quarters are 1=NW 2=NE 3=SW 4=SE |               |     |     | NAD83 UTM in meters |     |     |     |          |           |   |
|----------------------------------|---------------|-----|-----|---------------------|-----|-----|-----|----------|-----------|---|
| quarters are smallest to largest |               |     |     |                     |     |     |     |          |           |   |
| Well Tag                         | POD Nbr       | Q64 | Q16 | Q4                  | Sec | Tws | Rng | X        | Y         | Map   |
| NA                               | RA 13234 POD1 | NW  | SE  | NW                  | 19  | 17S | 32E | 611435.4 | 3632294.4 |  |

\* UTM location was derived from PLSS - see Help

|                   |                      |                    |                                |              |                 |
|-------------------|----------------------|--------------------|--------------------------------|--------------|-----------------|
| Driller License:  | 1249                 | Driller Company:   | ATKINS ENGINEERING ASSOC. INC. |              |                 |
| Driller Name:     | JACKIE D. ATKINS     |                    |                                |              |                 |
| Drill Start Date: | 2022-10-20           | Drill Finish Date: | 2022-10-20                     |              | Plug Date:      |
| Log File Date:    | 2022-11-04           | PCW Rcv Date:      |                                |              | Source: Shallow |
| Pump Type:        | Pipe Discharge Size: |                    | Estimated Yield:               |              |                 |
| Casing Size:      | Depth Well:          |                    | 104                            | Depth Water: |                 |

## Water Bearing Stratifications:

| Top | Bottom | Description                   |
|-----|--------|-------------------------------|
| 54  | 104    | Sandstone/Gravel/Conglomerate |

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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   |
|----------|---------------|-----|-----|----|-----|-----|-----|----------|-----------|---|
| NA       | RA 13286 POD1 | NE  | SE  | SE | 12  | 17S | 31E | 610741.6 | 3634697.7 |  |

\* UTM location was derived from PLSS - see Help

|                   |               |                      |                                |
|-------------------|---------------|----------------------|--------------------------------|
| Driller License:  | 1249          | Driller Company:     | ATKINS ENGINEERING ASSOC. INC. |
| Driller Name:     | JACKIE ATKINS |                      |                                |
| Drill Start Date: | 2023-03-23    | Drill Finish Date:   | 2023-03-23                     |
|                   |               | Plug Date:           | 2023-04-03                     |
| Log File Date:    | 2023-06-27    | PCW Rcv Date:        |                                |
|                   |               | Source:              |                                |
| Pump Type:        |               | Pipe Discharge Size: |                                |
|                   |               | Estimated Yield:     |                                |
| Casing Size:      |               | Depth Well:          | 101                            |
|                   |               | Depth Water:         |                                |

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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   |
| NA                               | RA 13324 POD1 | SE  | SE  | NW | 10  | 17S | 31E | 606710.6 | 3635310.6 |  |

\* UTM location was derived from PLSS - see Help

|                   |              |                      |                        |
|-------------------|--------------|----------------------|------------------------|
| Driller License:  | 1456         | Driller Company:     | WHITE DRILLING COMPANY |
| Driller Name:     | JOHN W WHITE |                      |                        |
| Drill Start Date: | 2023-05-08   | Drill Finish Date:   | 2023-05-11             |
|                   |              | Plug Date:           |                        |
| Log File Date:    | 2023-06-15   | PCW Rcv Date:        |                        |
|                   |              | Source:              |                        |
| Pump Type:        |              | Pipe Discharge Size: |                        |
|                   |              | Estimated Yield:     |                        |
| Casing Size:      |              | Depth Well:          | 55                     |
|                   |              | Depth Water:         |                        |

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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 10175 |     | NE  | NW | 28  | 17S | 32E | 614814.0 | 3631005.0 * |  |

\* UTM location was derived from PLSS - see Help

|                   |             |                    |                                    |  |  |  |  |            |                  |  |
|-------------------|-------------|--------------------|------------------------------------|--|--|--|--|------------|------------------|--|
| Driller License:  | 1044        | Driller Company:   | EADES WELL DRILLING & PUMP SERVICE |  |  |  |  |            |                  |  |
| Driller Name:     | EADES, ALAN |                    |                                    |  |  |  |  |            |                  |  |
| Drill Start Date: | 2002-02-04  | Drill Finish Date: | 2002-02-04                         |  |  |  |  | Plug Date: |                  |  |
| Log File Date:    | 2002-03-06  | PCW Rcv Date:      |                                    |  |  |  |  | Source:    | Shallow          |  |
| Pump Type:        |             |                    | Pipe Discharge Size:               |  |  |  |  |            | Estimated Yield: |  |
| Casing Size:      | 5.75        | Depth Well:        | 158                                |  |  |  |  |            | Depth Water:     |  |

Water Bearing Stratifications:

| Top | Bottom | Description                 |
|-----|--------|-----------------------------|
| 87  | 89     | Shallow Alluvium/Basin Fill |
| 89  | 116    | Shallow Alluvium/Basin Fill |
| 116 | 124    | Shallow Alluvium/Basin Fill |

Casing Perforations:

| Top | Bottom |
|-----|--------|
| 118 | 158    |

Meter Information

|                      |           |                    |                               |
|----------------------|-----------|--------------------|-------------------------------|
| Meter Number:        | 5380      | Meter Make:        | SENSUS                        |
| Meter Serial Number: | 560656282 | Meter Multiplier:  | 10.0000                       |
| Number of Dials:     | 6         | Meter Type:        | Diversion                     |
| Unit of Measure:     | Gallons   | Reading Frequency: | Monthly (No Reading Expected) |

Meter Readings (in Acre-Feet)



| Read Date  | Year | Mtr Reading | Flag | Rdr | Comment | Mtr Amount | Online |
|------------|------|-------------|------|-----|---------|------------|--------|
| 2002-03-20 | 2002 | 0.000       | A    | RPT |         | 0.000      |        |
| 2002-05-06 | 2002 | 170.000     | A    | RPT |         | 0.005      |        |
| 2003-02-13 | 2002 | 2410.000    | A    | PRT |         | 0.069      |        |
| 2005-02-01 | 2004 | 3420.138    | A    | ch  |         | 0.031      |        |

YTD Meter Amounts:

| Year | Amount |
|------|--------|
| 2002 | 0.074  |
| 2004 | 0.031  |

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2/11/25 9:35 AM MST

Point of Diversion Summary

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 12020 POD1 | NE  | NE  | NW | 28  | 17S | 32E | 614827.6 | 3630954.6 |  |

\* UTM location was derived from PLSS - see Help

|                   |                  |                    |                        |  |              |                  |  |
|-------------------|------------------|--------------------|------------------------|--|--------------|------------------|--|
| Driller License:  | 1456             | Driller Company:   | WHITE DRILLING COMPANY |  |              |                  |  |
| Driller Name:     | WHITE, JOHN (LD) |                    |                        |  |              |                  |  |
| Drill Start Date: | 2013-09-24       | Drill Finish Date: | 2013-09-25             |  | Plug Date:   |                  |  |
| Log File Date:    | 2013-10-07       | PCW Rcv Date:      |                        |  | Source:      | Shallow          |  |
| Pump Type:        |                  |                    | Pipe Discharge Size:   |  |              | Estimated Yield: |  |
| Casing Size:      | 2.00             | Depth Well:        | 120                    |  | Depth Water: | 81               |  |

Water Bearing Stratifications:

| Top | Bottom | Description                   |
|-----|--------|-------------------------------|
| 70  | 111    | Sandstone/Gravel/Conglomerate |
| 111 | 120    | Shale/Mudstone/Siltstone      |

Casing Perforations:

| Top | Bottom |
|-----|--------|
| 75  | 110    |








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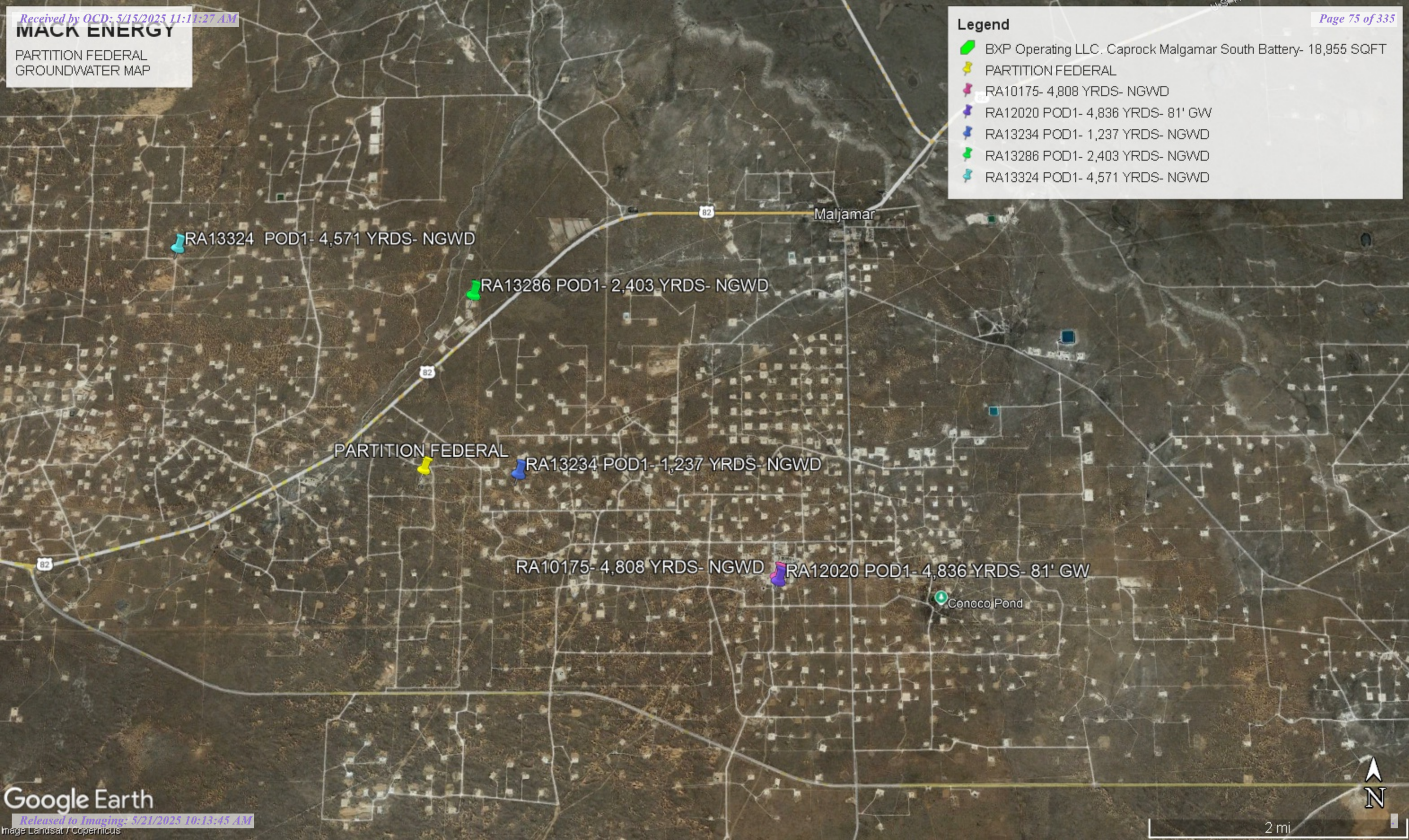


**MACK ENERGY**

PARTITION FEDERAL  
GROUNDWATER MAP

**Legend**

-  BXP Operating LLC. Caprock Malgamar South Battery- 18,955 SQFT
-  PARTITION FEDERAL
-  RA10175- 4,808 YRDS- NGWD
-  RA12020 POD1- 4,836 YRDS- 81' GW
-  RA13234 POD1- 1,237 YRDS- NGWD
-  RA13286 POD1- 2,403 YRDS- NGWD
-  RA13324 POD1- 4,571 YRDS- NGWD



PARTITION FEDERAL

Malgamar

Conoco Pond



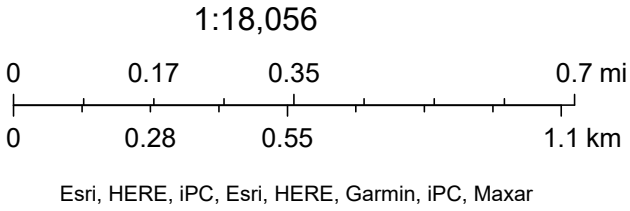


# OSE POD Location Map



2/19/2025, 11:06:00 AM

- Override 1
- OSE District Boundary
- GIS WATERS PODs
- Active
- Pending
- Plugged
- Pipeline
- Stream River





Company Name: MACK Location Name: PARTITION FEDERAL Release Date: 3/15/2020

| SP ID | Depth    | Titr | PID | L-BTEX | L-GRO | L-DRO | L-ORO | L-TPH | L-CHL | Soil | Notes |
|-------|----------|------|-----|--------|-------|-------|-------|-------|-------|------|-------|
| SP1   | SURFACE  | 320  | L   | ND     | ND    | ND    | ND    | ND    | 253   |      |       |
|       | 2'       | 160  | L   |        |       |       |       |       |       |      |       |
|       | 4'       | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| SP2   | SURFACE  | 80   | H   | 0.234  | ND    | 8590  | 4440  | 13030 | ND    |      |       |
|       | 2'       | 80   | L   |        |       |       |       |       |       |      |       |
|       | 4'       | 80   | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| SP3   | SURFACE  | 80   | H   | ND     | ND    | 6180  | 2560  | 8740  | ND    |      |       |
|       | 2'       | 80   | L   |        |       |       |       |       |       |      |       |
|       | 4'       | 80   | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| SP4   | SURFACE  | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
|       | 2'       | 160  | L   |        |       |       |       |       |       |      |       |
|       | 4'       | 80   | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| SP5   | SURFACE  | 80   | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
|       | 2'       | 80   | L   |        |       |       |       |       |       |      |       |
|       | 4'       | 80   | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| SP6   | SSURFACE | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
|       | 2'       | 80   | L   |        |       |       |       |       |       |      |       |
|       | 4'       | 80   | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| SP7   | SURFACE  | 160  | H   | ND     | ND    | 70.6  | 133   | 203.6 | ND    |      |       |
|       | 2'       | 160  | L   |        |       |       |       |       |       |      |       |
|       | 4'       | 80   | L   | ND     | ND    | ND    | ND    | ND    | 225   |      |       |
| SP8   | SURFACE  | 80   | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
|       | 2'       | 80   | L   |        |       |       |       |       |       |      |       |
|       | 4'       | 80   | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |

|      |         |     |   |    |    |    |    |    |      |  |  |
|------|---------|-----|---|----|----|----|----|----|------|--|--|
| SP9  | SURFACE | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
|      | 2'      | 80  | L |    |    |    |    |    |      |  |  |
|      | 4'      | 80  | L | ND | ND | ND | ND | ND | ND   |  |  |
| SP10 | SURFACE | 80  | L | ND | ND | ND | ND | ND | ND   |  |  |
|      | 2'      | 80  | L |    |    |    |    |    |      |  |  |
|      | 4'      | 80  | L | ND | ND | ND | ND | ND | ND   |  |  |
| SP11 | SURFACE | 80  | L | ND | ND | ND | ND | ND | ND   |  |  |
|      | 2'      | 80  | L |    |    |    |    |    |      |  |  |
|      | 4'      | 80  | L | ND | ND | ND | ND | ND | ND   |  |  |
| SW1  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
|      | 1       | 160 |   |    |    |    |    |    |      |  |  |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| SW2  | SURF    | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
|      | 1       | 160 |   |    |    |    |    |    |      |  |  |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| SW3  | SURF    | 160 | L | ND | ND | ND | ND | ND | 59.2 |  |  |
|      | 1       | 160 |   |    |    |    |    |    |      |  |  |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | 56.1 |  |  |
| SW4  | SURF    | 160 | L | ND | ND | ND | ND | ND | 53.6 |  |  |
|      | 1       | 160 |   |    |    |    |    |    |      |  |  |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | 51.4 |  |  |
| SW5  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
|      | 1       | 160 |   |    |    |    |    |    |      |  |  |
|      | 2       | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| SW6  | SURF    | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |



|      |      |     |   |    |    |      |      |       |     |  |  |
|------|------|-----|---|----|----|------|------|-------|-----|--|--|
|      | 1    | 160 |   |    |    |      |      |       |     |  |  |
|      | 2    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
| SW7  | SURF | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
|      | 1    | 160 |   |    |    |      |      |       |     |  |  |
|      | 2    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
| SW8  | SURF | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
|      | 1    | 160 |   |    |    |      |      |       |     |  |  |
|      | 2    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
| SW9  | SURF | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
|      | 1    | 160 |   |    |    |      |      |       |     |  |  |
|      | 2    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
| SW10 | SURF | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
|      | 1    | 160 |   |    |    |      |      |       |     |  |  |
|      | 2    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
| SW11 | SURF | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
|      | 1    | 160 |   |    |    |      |      |       |     |  |  |
|      | 2    | 160 | H | ND | ND | 46.8 | 73.3 | 120.1 | 246 |  |  |
|      | 3    | 240 |   |    |    |      |      |       |     |  |  |
|      | 4    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |
| SW12 | SURF | 160 | H | ND | ND | 48.8 | 78.7 | 127.5 | 284 |  |  |
|      | 1    | 160 |   |    |    |      |      |       |     |  |  |
|      | 2    | 160 | H | ND | ND | 50   | ND   | 50    | ND  |  |  |
|      | 3    | 320 |   |    |    |      |      |       |     |  |  |
|      | 4    | 160 | L | ND | ND | ND   | ND   | ND    | ND  |  |  |



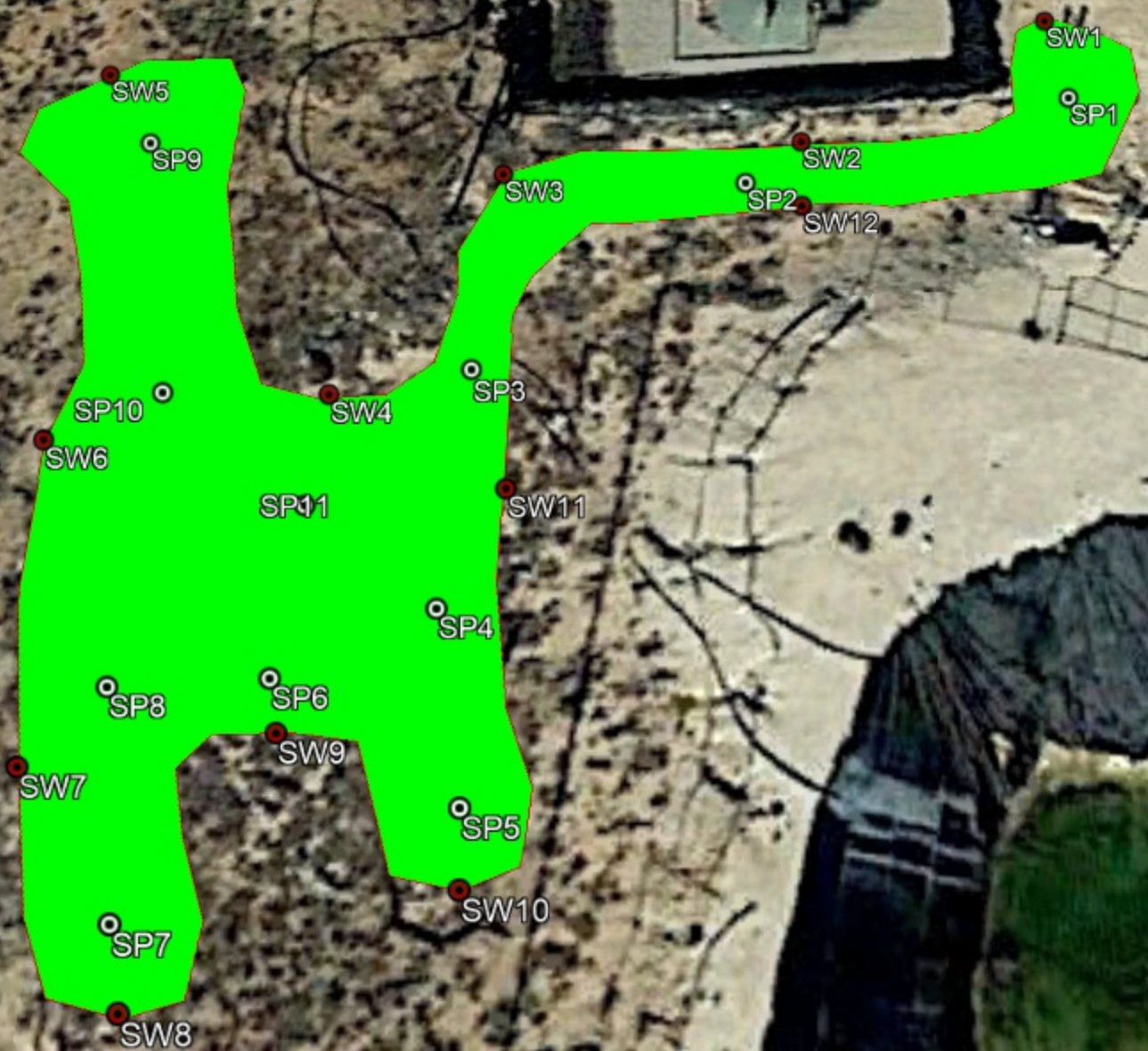
**MACK ENERGY**

PARTITION FEDERAL  
DELINEATION MAP

PARTITION FEDERAL

**Legend**

- HORIZONTAL DELINEATION POINTS
- PARTITION FED- 8,814 SQFT
- 📌 PARTITION FEDERAL
- VERTICAL DELINEATION POINTS



60 ft



**COMPANY: MACK ENERGY****LOCATION: PARTITION FEDERAL**

| POINT | LATITUDE   | LONGITUDE    |
|-------|------------|--------------|
| SP1   | 32.823462° | -103.822790° |
| SP2   | 32.823423° | -103.822937° |
| SP3   | 32.823342° | -103.823054° |
| SP4   | 32.823245° | -103.823061° |
| SP5   | 32.823172° | -103.823046° |
| SP6   | 32.823219° | -103.823125° |
| SP7   | 32.823133° | -103.823174° |
| SP8   | 32.823216° | -103.823189° |
| SP9   | 32.823447° | -103.823208° |
| SP10  | 32.823333° | -103.823185° |
| SP11  | 32.823286° | -103.823119° |
| SW1   | 32.823501° | -103.822798° |
| SW2   | 32.823442° | -103.822912° |
| SW3   | 32.823430° | -103.823046° |
| SW4   | 32.823332° | -103.823114° |
| SW5   | 32.823481° | -103.823232° |
| SW6   | 32.823313° | -103.823232° |
| SW7   | 32.823187° | -103.823219° |
| SW8   | 32.823104° | -103.823166° |
| SW9   | 32.823199° | -103.823120° |
| SW10  | 32.823144° | -103.823044° |
| SW11  | 32.823292° | -103.823036° |
| SW12  | 32.823411° | -103.822912° |

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: Partition Federal

Work Order: E111127

Job Number: 20046-0001

Received: 11/22/2021

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
11/23/21

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
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Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc. holds the NM SDWA certification for data reported. (Lab #NM00979)



Date Reported: 11/23/21

Natalie Gladden  
7 W. Compress Road  
Artesia, NM 88210



Project Name: Partition Federal  
Workorder: E111127  
Date Received: 11/22/2021 11:41:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/22/2021 11:41:00AM, under the Project Name: Partition Federal.

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

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

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

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

Respectfully,

**Walter Hinchman**  
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## Sample Summary

|  |  |  |  |
|--|--|--|--|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name:<br>Project Number:<br>Project Manager: | Partition Federal<br>20046-0001<br>Natalie Gladden | <b>Reported:</b><br><br>11/23/21 16:53 |
|--|--|--|--|

| Client Sample ID | Lab Sample ID | Matrix | Sampled  | Received | Container        |
|------------------|---------------|--------|----------|----------|------------------|
| SP 1             | E111127-01A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 1 4'          | E111127-02A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 2             | E111127-03A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 2 4'          | E111127-04A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 3             | E111127-05A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 3 4'          | E111127-06A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 4             | E111127-07A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 4 4'          | E111127-08A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 5             | E111127-09A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 5 4'          | E111127-10A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 6             | E111127-11A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 6 4'          | E111127-12A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 7             | E111127-13A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 7 4'          | E111127-14A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 8             | E111127-15A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 8 4'          | E111127-16A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 9             | E111127-17A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 9 4'          | E111127-18A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 10            | E111127-19A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 10 4'         | E111127-20A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 11            | E111127-21A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| SP 11 4'         | E111127-22A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| T 1              | E111127-23A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |
| T1 8'            | E111127-24A   | Soil   | 11/17/21 | 11/22/21 | Glass Jar, 4 oz. |





## Sample Data

|  |  |  |  |
|--|--|--|--|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name:<br>Project Number:<br>Project Manager: | Partition Federal<br>20046-0001<br>Natalie Gladden | <b>Reported:</b><br>11/23/2021 4:53:29PM |
|--|--|--|--|

### SP 1

#### E111127-01

| Analyte   | Result        | Reporting Limit | Dilution     | Prepared        | Analyzed        | Notes |
|---|---------------|-----------------|--------------|-----------------|-----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 | mg/kg         | mg/kg           | Analyst: RKS |                 | Batch: 2148005  |       |
| Benzene   | ND            | 0.0250          | 1            | 11/22/21        | 11/22/21        |       |
| Ethylbenzene  | ND            | 0.0250          | 1            | 11/22/21        | 11/22/21        |       |
| Toluene   | ND            | 0.0250          | 1            | 11/22/21        | 11/22/21        |       |
| o-Xylene  | ND            | 0.0250          | 1            | 11/22/21        | 11/22/21        |       |
| p,m-Xylene  | ND            | 0.0500          | 1            | 11/22/21        | 11/22/21        |       |
| Total Xylenes   | ND            | 0.0250          | 1            | 11/22/21        | 11/22/21        |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            | <i>90.0 %</i> | <i>70-130</i>   |              | <i>11/22/21</i> | <i>11/22/21</i> |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     | mg/kg         | mg/kg           | Analyst: RKS |                 | Batch: 2148005  |       |
| Gasoline Range Organics (C6-C10)                      | ND            | 20.0            | 1            | 11/22/21        | 11/22/21        |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        | <i>91.2 %</i> | <i>70-130</i>   |              | <i>11/22/21</i> | <i>11/22/21</i> |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> | mg/kg         | mg/kg           | Analyst: JL  |                 | Batch: 2148004  |       |
| Diesel Range Organics (C10-C28)                       | ND            | 25.0            | 1            | 11/22/21        | 11/22/21        |       |
| Oil Range Organics (C28-C36)                          | ND            | 50.0            | 1            | 11/22/21        | 11/22/21        |       |
| <i>Surrogate: n-Nonane</i>                            | <i>112 %</i>  | <i>50-200</i>   |              | <i>11/22/21</i> | <i>11/22/21</i> |       |
| <b>Anions by EPA 300.0/9056A</b>                      | mg/kg         | mg/kg           | Analyst: IY  |                 | Batch: 2148009  |       |
| Chloride  | 253           | 20.0            | 1            | 11/22/21        | 11/22/21        |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 1 4'

E111127-02

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/22/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 93.4 % | 70-130          |          | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 91.3 % | 70-130          |          | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/22/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 114 %  | 50-200          |          | 11/22/21     | 11/22/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/22/21 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 2

## E111127-03

| Analyte   | Result        | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|---------------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |               |                 |          |              |          |                |
|   | mg/kg         | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND            | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Ethylbenzene  | <b>0.0388</b> | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Toluene   | ND            | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| o-Xylene  | <b>0.0623</b> | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| p,m-Xylene  | <b>0.172</b>  | 0.0500          | 1        | 11/22/21     | 11/22/21 |                |
| Total Xylenes   | <b>0.234</b>  | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |               |                 |          |              |          |                |
|   | 89.1 %        | 70-130          |          | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |               |                 |          |              |          |                |
|   | mg/kg         | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND            | 20.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |               |                 |          |              |          |                |
|   | 91.2 %        | 70-130          |          | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |               |                 |          |              |          |                |
|   | mg/kg         | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | <b>8590</b>   | 1250            | 50       | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | <b>4440</b>   | 2500            | 50       | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |               |                 |          |              |          |                |
|   | 168 %         | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |               |                 |          |              |          |                |
|   | mg/kg         | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND            | 20.0            | 1        | 11/22/21     | 11/22/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 2 4'

E111127-04

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/22/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   |        | 102 %           | 70-130   | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   |        | 90.9 %          | 70-130   | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/22/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   |        | 107 %           | 50-200   | 11/22/21     | 11/22/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/22/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 3

## E111127-05

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/22/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 87.2 % | 70-130          |          | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 87.4 % | 70-130          |          | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | 6180   | 250             | 10       | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | 2560   | 500             | 10       | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 140 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/22/21 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 3 4'

E111127-06

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/22/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   |        | 101 %           | 70-130   | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   |        | 92.4 %          | 70-130   | 11/22/21     | 11/22/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/22/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   |        | 110 %           | 50-200   | 11/22/21     | 11/22/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 4

## E111127-07

| Analyte   | Result | Reporting Limit | Dilution     | Prepared | Analyzed       | Notes |
|---|--------|-----------------|--------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |              |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: RKS |          | Batch: 2148005 |       |
| Benzene   | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| Ethylbenzene  | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| Toluene   | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| o-Xylene  | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| p,m-Xylene  | ND     | 0.0500          | 1            | 11/22/21 | 11/23/21       |       |
| Total Xylenes   | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |              |          |                |       |
|   | 94.7 % | 70-130          |              | 11/22/21 | 11/23/21       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |              |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: RKS |          | Batch: 2148005 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1            | 11/22/21 | 11/23/21       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |              |          |                |       |
|   | 95.2 % | 70-130          |              | 11/22/21 | 11/23/21       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |              |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL  |          | Batch: 2148004 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1            | 11/22/21 | 11/22/21       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1            | 11/22/21 | 11/22/21       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |              |          |                |       |
|   | 114 %  | 50-200          |              | 11/22/21 | 11/22/21       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |              |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY  |          | Batch: 2148009 |       |
| Chloride  | ND     | 20.0            | 1            | 11/22/21 | 11/23/21       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 4 4'

E111127-08

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 92.7 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 89.2 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/22/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 115 %  | 50-200          |          | 11/22/21     | 11/22/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 5

## E111127-09

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 87.3 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 93.2 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/22/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 111 %  | 50-200          |          | 11/22/21     | 11/22/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 5 4'

E111127-10

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 90.0 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 93.8 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/22/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 110 %  | 50-200          |          | 11/22/21     | 11/22/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 6

## E111127-11

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 89.0 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 93.1 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/22/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 114 %  | 50-200          |          | 11/22/21     | 11/22/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 6 4'

E111127-12

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 91.9 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 92.1 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/22/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/22/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 113 %  | 50-200          |          | 11/22/21     | 11/22/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 7

## E111127-13

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 84.9 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 90.1 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | 70.6   | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | 133    | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 129 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 7 4'

E111127-14

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 90.9 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 91.9 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 117 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | 225    | 20.0            | 1        | 11/22/21     | 11/23/21 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 8

## E111127-15

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 94.6 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 91.0 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 136 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 8 4'

E111127-16

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 95.5 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 90.0 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 110 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 9

## E111127-17

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 94.1 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 90.7 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 112 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 9 4'

E111127-18

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 97.5 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 90.2 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 118 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 10

## E111127-19

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 91.6 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 91.8 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 117 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 10 4'

## E111127-20

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 95.8 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148005 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 89.2 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148007 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 113 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148009 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## SP 11

## E111127-21

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148010 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 94.5 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148010 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 94.3 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148007 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 111 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148011 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

SP 11 4'

E111127-22

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148010 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 88.2 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148010 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 92.2 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148007 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 112 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148011 |
| Chloride  | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

## T 1

## E111127-23

| Analyte   | Result | Reporting Limit | Dilution | Prepared     | Analyzed | Notes          |
|---|--------|-----------------|----------|--------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148010 |
| Benzene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| Toluene   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 11/22/21     | 11/23/21 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |          |              |          |                |
|   | 82.3 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: RKS |          | Batch: 2148010 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |          |              |          |                |
|   | 85.3 % | 70-130          |          | 11/22/21     | 11/23/21 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL  |          | Batch: 2148007 |
| Diesel Range Organics (C10-C28)                       | 10600  | 2500            | 100      | 11/22/21     | 11/23/21 |                |
| Oil Range Organics (C28-C36)                          | 5830   | 5000            | 100      | 11/22/21     | 11/23/21 |                |
| <i>Surrogate: n-Nonane</i>                            |        |                 |          |              |          |                |
|   | 124 %  | 50-200          |          | 11/22/21     | 11/23/21 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |              |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY  |          | Batch: 2148011 |
| Chloride  | 32.1   | 20.0            | 1        | 11/22/21     | 11/23/21 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition Federal  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
11/23/2021 4:53:29PM

T1 8'

E111127-24

| Analyte   | Result | Reporting Limit | Dilution     | Prepared | Analyzed       | Notes |
|---|--------|-----------------|--------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |              |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: RKS |          | Batch: 2148010 |       |
| Benzene   | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| Ethylbenzene  | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| Toluene   | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| o-Xylene  | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| p,m-Xylene  | ND     | 0.0500          | 1            | 11/22/21 | 11/23/21       |       |
| Total Xylenes   | ND     | 0.0250          | 1            | 11/22/21 | 11/23/21       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |              |          |                |       |
|   | 97.4 % | 70-130          |              | 11/22/21 | 11/23/21       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |              |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: RKS |          | Batch: 2148010 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1            | 11/22/21 | 11/23/21       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |              |          |                |       |
|   | 94.0 % | 70-130          |              | 11/22/21 | 11/23/21       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |              |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL  |          | Batch: 2148007 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1            | 11/22/21 | 11/23/21       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1            | 11/22/21 | 11/23/21       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |              |          |                |       |
|   | 112 %  | 50-200          |              | 11/22/21 | 11/23/21       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |              |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY  |          | Batch: 2148011 |       |
| Chloride  | ND     | 20.0            | 1            | 11/22/21 | 11/23/21       |       |



## QC Summary Data

|                    |                  |                   |                      |
|--------------------|------------------|-------------------|----------------------|
| Mack Energy        | Project Name:    | Partition Federal | <b>Reported:</b>     |
| 7 W. Compress Road | Project Number:  | 20046-0001        |                      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/2021 4:53:29PM |

## Volatile Organics by EPA 8021B

Analyst: RKS

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

## Blank (2148005-BLK1)

Prepared: 11/22/21 Analyzed: 11/22/21

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| Ethylbenzene                        | ND   | 0.0250 |      |  |      |        |  |  |  |
| Toluene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| o-Xylene                            | ND   | 0.0250 |      |  |      |        |  |  |  |
| p,m-Xylene                          | ND   | 0.0500 |      |  |      |        |  |  |  |
| Total Xylenes                       | ND   | 0.0250 |      |  |      |        |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.31 |        | 8.00 |  | 91.4 | 70-130 |  |  |  |

## LCS (2148005-BS1)

Prepared: 11/22/21 Analyzed: 11/22/21

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | 4.68 | 0.0250 | 5.00 |  | 93.5 | 70-130 |  |  |  |
| Ethylbenzene                        | 4.59 | 0.0250 | 5.00 |  | 91.7 | 70-130 |  |  |  |
| Toluene                             | 4.75 | 0.0250 | 5.00 |  | 95.0 | 70-130 |  |  |  |
| o-Xylene                            | 4.69 | 0.0250 | 5.00 |  | 93.8 | 70-130 |  |  |  |
| p,m-Xylene                          | 9.31 | 0.0500 | 10.0 |  | 93.1 | 70-130 |  |  |  |
| Total Xylenes                       | 14.0 | 0.0250 | 15.0 |  | 93.4 | 70-130 |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.48 |        | 8.00 |  | 93.5 | 70-130 |  |  |  |

## LCS Dup (2148005-BSD1)

Prepared: 11/22/21 Analyzed: 11/22/21

|                                     |      |        |      |  |      |        |       |    |  |
|-------------------------------------|------|--------|------|--|------|--------|-------|----|--|
| Benzene                             | 4.69 | 0.0250 | 5.00 |  | 93.7 | 70-130 | 0.230 | 20 |  |
| Ethylbenzene                        | 4.63 | 0.0250 | 5.00 |  | 92.6 | 70-130 | 0.997 | 20 |  |
| Toluene                             | 4.78 | 0.0250 | 5.00 |  | 95.5 | 70-130 | 0.616 | 20 |  |
| o-Xylene                            | 4.74 | 0.0250 | 5.00 |  | 94.8 | 70-130 | 1.04  | 20 |  |
| p,m-Xylene                          | 9.42 | 0.0500 | 10.0 |  | 94.2 | 70-130 | 1.13  | 20 |  |
| Total Xylenes                       | 14.2 | 0.0250 | 15.0 |  | 94.4 | 70-130 | 1.10  | 20 |  |
| Surrogate: 4-Bromochlorobenzene-PID | 8.01 |        | 8.00 |  | 100  | 70-130 |       |    |  |



## QC Summary Data

|                    |                  |                   |                      |
|--------------------|------------------|-------------------|----------------------|
| Mack Energy        | Project Name:    | Partition Federal | <b>Reported:</b>     |
| 7 W. Compress Road | Project Number:  | 20046-0001        |                      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/2021 4:53:29PM |

## Volatile Organics by EPA 8021B

Analyst: RKS

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

## Blank (2148010-BLK1)

Prepared: 11/22/21 Analyzed: 11/23/21

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| Ethylbenzene                        | ND   | 0.0250 |      |  |      |        |  |  |  |
| Toluene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| o-Xylene                            | ND   | 0.0250 |      |  |      |        |  |  |  |
| p,m-Xylene                          | ND   | 0.0500 |      |  |      |        |  |  |  |
| Total Xylenes                       | ND   | 0.0250 |      |  |      |        |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.53 |        | 8.00 |  | 94.1 | 70-130 |  |  |  |

## LCS (2148010-BS1)

Prepared: 11/22/21 Analyzed: 11/23/21

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | 4.71 | 0.0250 | 5.00 |  | 94.2 | 70-130 |  |  |  |
| Ethylbenzene                        | 4.82 | 0.0250 | 5.00 |  | 96.5 | 70-130 |  |  |  |
| Toluene                             | 5.02 | 0.0250 | 5.00 |  | 100  | 70-130 |  |  |  |
| o-Xylene                            | 4.77 | 0.0250 | 5.00 |  | 95.4 | 70-130 |  |  |  |
| p,m-Xylene                          | 9.74 | 0.0500 | 10.0 |  | 97.4 | 70-130 |  |  |  |
| Total Xylenes                       | 14.5 | 0.0250 | 15.0 |  | 96.8 | 70-130 |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.59 |        | 8.00 |  | 94.8 | 70-130 |  |  |  |

## LCS Dup (2148010-BSD1)

Prepared: 11/22/21 Analyzed: 11/23/21

|                                     |      |        |      |  |      |        |       |    |  |
|-------------------------------------|------|--------|------|--|------|--------|-------|----|--|
| Benzene                             | 4.67 | 0.0250 | 5.00 |  | 93.5 | 70-130 | 0.816 | 20 |  |
| Ethylbenzene                        | 4.80 | 0.0250 | 5.00 |  | 95.9 | 70-130 | 0.586 | 20 |  |
| Toluene                             | 4.97 | 0.0250 | 5.00 |  | 99.4 | 70-130 | 1.05  | 20 |  |
| o-Xylene                            | 4.76 | 0.0250 | 5.00 |  | 95.2 | 70-130 | 0.175 | 20 |  |
| p,m-Xylene                          | 9.69 | 0.0500 | 10.0 |  | 96.9 | 70-130 | 0.530 | 20 |  |
| Total Xylenes                       | 14.5 | 0.0250 | 15.0 |  | 96.4 | 70-130 | 0.413 | 20 |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.67 |        | 8.00 |  | 95.9 | 70-130 |       |    |  |





QC Summary Data

|                    |                  |                   |                      |
|--------------------|------------------|-------------------|----------------------|
| Mack Energy        | Project Name:    | Partition Federal | Reported:            |
| 7 W. Compress Road | Project Number:  | 20046-0001        |                      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/2021 4:53:29PM |

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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

Blank (2148005-BLK1) Prepared: 11/22/21 Analyzed: 11/22/21

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | ND   | 20.0 |      |  |      |        |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.42 |      | 8.00 |  | 92.8 | 70-130 |  |  |  |

LCS (2148005-BS2) Prepared: 11/22/21 Analyzed: 11/22/21

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | 51.2 | 20.0 | 50.0 |  | 102  | 70-130 |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.35 |      | 8.00 |  | 91.8 | 70-130 |  |  |  |

LCS Dup (2148005-BSD2) Prepared: 11/22/21 Analyzed: 11/22/21

|   |      |      |      |  |      |        |      |    |  |
|---|------|------|------|--|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10)        | 49.9 | 20.0 | 50.0 |  | 99.9 | 70-130 | 2.52 | 20 |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.21 |      | 8.00 |  | 90.1 | 70-130 |      |    |  |



QC Summary Data

|                    |                  |                   |                      |
|--------------------|------------------|-------------------|----------------------|
| Mack Energy        | Project Name:    | Partition Federal | Reported:            |
| 7 W. Compress Road | Project Number:  | 20046-0001        |                      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/2021 4:53:29PM |

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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

Blank (2148010-BLK1) Prepared: 11/22/21 Analyzed: 11/23/21

|   |      |      |      |  |     |        |  |  |  |
|---|------|------|------|--|-----|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | ND   | 20.0 |      |  |     |        |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 8.13 |      | 8.00 |  | 102 | 70-130 |  |  |  |

LCS (2148010-BS2) Prepared: 11/22/21 Analyzed: 11/23/21

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | 47.0 | 20.0 | 50.0 |  | 94.0 | 70-130 |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 8.32 |      | 8.00 |  | 104  | 70-130 |  |  |  |

LCS Dup (2148010-BSD2) Prepared: 11/22/21 Analyzed: 11/23/21

|   |      |      |      |  |      |        |       |    |  |
|---|------|------|------|--|------|--------|-------|----|--|
| Gasoline Range Organics (C6-C10)        | 46.9 | 20.0 | 50.0 |  | 93.8 | 70-130 | 0.159 | 20 |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 8.24 |      | 8.00 |  | 103  | 70-130 |       |    |  |



QC Summary Data

|                    |                  |                   |                      |
|--------------------|------------------|-------------------|----------------------|
| Mack Energy        | Project Name:    | Partition Federal | Reported:            |
| 7 W. Compress Road | Project Number:  | 20046-0001        |                      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/2021 4:53:29PM |

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| Blank (2148004-BLK1)            |      |      |      |  | Prepared: 11/22/21 Analyzed: 11/22/21 |        |  |  |  |
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |                                       |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |                                       |        |  |  |  |
| Surrogate: n-Nonane             | 55.0 |      | 50.0 |  | 110                                   | 50-200 |  |  |  |

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| LCS (2148004-BS1)               |      |      |      |  | Prepared: 11/22/21 Analyzed: 11/22/21 |        |  |  |  |
| Diesel Range Organics (C10-C28) | 446  | 25.0 | 500  |  | 89.1                                  | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 57.0 |      | 50.0 |  | 114                                   | 50-200 |  |  |  |

|                                 |      |      |      |    |                    |        |                                       |  |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|--|--|
| Matrix Spike (2148004-MS1)      |      |      |      |    | Source: E111127-17 |        | Prepared: 11/22/21 Analyzed: 11/22/21 |  |  |
| Diesel Range Organics (C10-C28) | 453  | 25.0 | 500  | ND | 90.5               | 38-132 |                                       |  |  |
| Surrogate: n-Nonane             | 57.2 |      | 50.0 |    | 114                | 50-200 |                                       |  |  |

|                                 |      |      |      |    |                    |        |                                       |    |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|----|--|
| Matrix Spike Dup (2148004-MSD1) |      |      |      |    | Source: E111127-17 |        | Prepared: 11/22/21 Analyzed: 11/22/21 |    |  |
| Diesel Range Organics (C10-C28) | 464  | 25.0 | 500  | ND | 92.9               | 38-132 | 2.59                                  | 20 |  |
| Surrogate: n-Nonane             | 59.1 |      | 50.0 |    | 118                | 50-200 |                                       |    |  |





QC Summary Data

|                    |                  |                   |                      |
|--------------------|------------------|-------------------|----------------------|
| Mack Energy        | Project Name:    | Partition Federal | Reported:            |
| 7 W. Compress Road | Project Number:  | 20046-0001        |                      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/2021 4:53:29PM |

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| Blank (2148007-BLK1)            |      |      |      |  | Prepared: 11/22/21 Analyzed: 11/23/21 |        |  |  |  |
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |                                       |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |                                       |        |  |  |  |
| Surrogate: n-Nonane             | 57.2 |      | 50.0 |  | 114                                   | 50-200 |  |  |  |

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| LCS (2148007-BS1)               |      |      |      |  | Prepared: 11/22/21 Analyzed: 11/23/21 |        |  |  |  |
| Diesel Range Organics (C10-C28) | 556  | 25.0 | 500  |  | 111                                   | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 56.6 |      | 50.0 |  | 113                                   | 50-200 |  |  |  |

|                                 |      |      |      |    |                    |        |                                       |  |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|--|--|
| Matrix Spike (2148007-MS1)      |      |      |      |    | Source: E111124-05 |        | Prepared: 11/22/21 Analyzed: 11/23/21 |  |  |
| Diesel Range Organics (C10-C28) | 570  | 25.0 | 500  | ND | 114                | 38-132 |                                       |  |  |
| Surrogate: n-Nonane             | 59.9 |      | 50.0 |    | 120                | 50-200 |                                       |  |  |

|                                 |      |      |      |    |                    |        |                                       |    |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|----|--|
| Matrix Spike Dup (2148007-MSD1) |      |      |      |    | Source: E111124-05 |        | Prepared: 11/22/21 Analyzed: 11/23/21 |    |  |
| Diesel Range Organics (C10-C28) | 584  | 25.0 | 500  | ND | 117                | 38-132 | 2.47                                  | 20 |  |
| Surrogate: n-Nonane             | 61.5 |      | 50.0 |    | 123                | 50-200 |                                       |    |  |



## QC Summary Data

|                    |                  |                   |                      |
|--------------------|------------------|-------------------|----------------------|
| Mack Energy        | Project Name:    | Partition Federal | <b>Reported:</b>     |
| 7 W. Compress Road | Project Number:  | 20046-0001        |                      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/2021 4:53:29PM |

## Anions by EPA 300.0/9056A

Analyst: IY

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

## Blank (2148009-BLK1)

Prepared: 11/22/21 Analyzed: 11/22/21

|          |    |      |
|----------|----|------|
| Chloride | ND | 20.0 |
|----------|----|------|

## LCS (2148009-BS1)

Prepared: 11/22/21 Analyzed: 11/22/21

|          |     |      |     |     |        |
|----------|-----|------|-----|-----|--------|
| Chloride | 250 | 20.0 | 250 | 100 | 90-110 |
|----------|-----|------|-----|-----|--------|

## Matrix Spike (2148009-MS1)

Source: E111127-01

Prepared: 11/22/21 Analyzed: 11/22/21

|          |     |      |     |     |     |        |
|----------|-----|------|-----|-----|-----|--------|
| Chloride | 511 | 20.0 | 250 | 253 | 103 | 80-120 |
|----------|-----|------|-----|-----|-----|--------|

## Matrix Spike Dup (2148009-MSD1)

Source: E111127-01

Prepared: 11/22/21 Analyzed: 11/22/21

|          |     |      |     |     |     |        |      |    |
|----------|-----|------|-----|-----|-----|--------|------|----|
| Chloride | 516 | 20.0 | 250 | 253 | 105 | 80-120 | 1.06 | 20 |
|----------|-----|------|-----|-----|-----|--------|------|----|



QC Summary Data

|                    |                  |                   |                      |
|--------------------|------------------|-------------------|----------------------|
| Mack Energy        | Project Name:    | Partition Federal | Reported:            |
| 7 W. Compress Road | Project Number:  | 20046-0001        |                      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/2021 4:53:29PM |

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 (2148011-BLK1)            |     |      |     |    | Prepared: 11/22/21 Analyzed: 11/23/21 |        |                                       |    |  |
| Chloride                        | ND  | 20.0 |     |    |                                       |        |                                       |    |  |
| LCS (2148011-BS1)               |     |      |     |    | Prepared: 11/22/21 Analyzed: 11/23/21 |        |                                       |    |  |
| Chloride                        | 247 | 20.0 | 250 |    | 98.7                                  | 90-110 |                                       |    |  |
| Matrix Spike (2148011-MS1)      |     |      |     |    | Source: E111127-21                    |        | Prepared: 11/22/21 Analyzed: 11/23/21 |    |  |
| Chloride                        | 248 | 20.0 | 250 | ND | 99.4                                  | 80-120 |                                       |    |  |
| Matrix Spike Dup (2148011-MSD1) |     |      |     |    | Source: E111127-21                    |        | Prepared: 11/22/21 Analyzed: 11/23/21 |    |  |
| Chloride                        | 248 | 20.0 | 250 | ND | 99.1                                  | 80-120 | 0.286                                 | 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:    | Partition Federal |                |
| 7 W. Compress Road | Project Number:  | 20046-0001        | Reported:      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden   | 11/23/21 16:53 |

- ND      Analyte NOT DETECTED at or above the reporting limit
- NR      Not Reported
- RPD      Relative Percent Difference
- DNI      Did Not Ignite

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

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



Client: Mac Energy

Project: Perdian Federal

Project Manager:

Address:

City, State, Zip

Phone:

mail:

Report due by:

Bill To

Attention: FSS

Address: 2724 NW CR

City, State, Zip Hobbs, NM 88240

Phone:

Email: Natalie

Lab Use Only

Lab WO# E11127

Job Number 20046-6001

Analysis and Method

DRO/ORO by 8015

GRO/DRO by 8015

BTEX by 8021

VOC by 8260

Metals 6010

Chloride 300.0

NM - BGDOC

TX - TPH (TCEQ 1005)

TAT

1D

2D X

3D

Standard

EPA Program

CWA

SDWA

RCRA

State

NM X

CO

UT

AZ

TX

Remarks

| Time Sampled | Date Sampled | Matrix | No. of Containers | Sample ID | Lab Number |
|--------------|--------------|--------|-------------------|-----------|------------|
|              | 11/17/21     |        | 1                 | SP 1      | 1          |
|              |              |        |                   | SP 1 4'   | 2          |
|              |              |        |                   | SP 2      | 3          |
|              |              |        |                   | SP 2 4'   | 4          |
|              |              |        |                   | SP 3      | 5          |
|              |              |        |                   | SP 3 4'   | 6          |
|              |              |        |                   | SP 4      | 7          |
|              |              |        |                   | SP 4 4'   | 8          |
|              |              |        |                   | SP 5      | 9          |
|              |              |        |                   | SP 5 4'   | 10         |

Additional Instructions:

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

Relinquished by: (Signature) [Signature] Date 11-17-21 Time

Relinquished by: (Signature) Date Time

Relinquished by: (Signature) Date Time

Received by: (Signature) [Signature] Date 11-22-21 Time 11:41

Received by: (Signature) Date Time

Received by: (Signature) Date Time

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.

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.

|   |              |   |                   |                        |            |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|---|--------------|---|-------------------|------------------------|------------|-----------------------------|--|-------------|----|-------------|----------|---|------|----------------|--|------------|--|----------------------|--|------|--|
| Client: <u>Mac Energy</u>   |              | Bill To                                 |                   | Lab Use Only           |            | TAT                         |  | EPA Program |    |             |          |   |      |                |  |            |  |                      |  |      |  |
| Project: <u>Partition Federal</u>   |              | Attention: <u>ESS</u>                   |                   | Lab WO# <u>E111127</u> |            | Job Number <u>2046-0001</u> |  | 1D          | 2D | 3D          | Standard | CWA   | SDWA |                |  |            |  |                      |  |      |  |
| Project Manager:  |              | Address: <u>2724 NW CR</u>              |                   | Analysis and Method    |            |                             |  |             | X  |             |          |   |      |                |  |            |  |                      |  |      |  |
| Address:  |              | City, State, Zip <u>Holts, NM 88240</u> |                   | DRO/ORO by 8015        |            | GRO/DRO by 8015             |  | BTX by 8021 |    | VOC by 8260 |          | Metals 6010   |      | Chloride 300.0 |  | NM - BGDOC |  | TX - TPH (TCEQ 1005) |  | RCRA |  |
| Phone:  |              | Email: <u>Natalie</u>                   |                   |                        |            |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
| Report due by:  |              |   |                   |                        |            |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
| Time Sampled  | Date Sampled | Matrix                                  | No. of Containers | Sample ID              | Lab Number | Remarks                     |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   | 11-17-21     |   | 1                 | SP 6                   | 11         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 6 4'                | 12         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 7                   | 13         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 7 4'                | 14         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 8                   | 15         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 8 4'                | 16         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 9                   | 17         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 9 4'                | 18         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 10                  | 19         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
|   |              |   |                   | SP 10 4'               | 20         |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
| Additional Instructions:  |              |   |                   |                        |            |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |
| I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.  |              |   |                   |                        |            |                             |  |             |    |             |          | Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. |      |                |  |            |  |                      |  |      |  |
| Relinquished by: (Signature)  |              | Date                                    |                   | Time                   |            | Received by: (Signature)    |  | Date        |    | Time        |          | Lab Use Only  |      |                |  |            |  |                      |  |      |  |
| Relinquished by: (Signature)  |              | Date                                    |                   | Time                   |            | Received by: (Signature)    |  | Date        |    | Time        |          | Received on ice: <u>Y</u> / N   |      |                |  |            |  |                      |  |      |  |
| Relinquished by: (Signature)  |              | Date                                    |                   | Time                   |            | Received by: (Signature)    |  | Date        |    | Time        |          | T1 _____ T2 _____ T3 _____  |      |                |  |            |  |                      |  |      |  |
| Relinquished by: (Signature)  |              | Date                                    |                   | Time                   |            | Received by: (Signature)    |  | Date        |    | Time        |          | AVG Temp °C <u>4</u>  |      |                |  |            |  |                      |  |      |  |
| Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____  |              |   |                   |                        |            |                             |  |             |    |             |          | Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA  |      |                |  |            |  |                      |  |      |  |
| Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report. |              |   |                   |                        |            |                             |  |             |    |             |          |   |      |                |  |            |  |                      |  |      |  |



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## Project Information

## Chain of Custody

Page 3 of 3

|                                   |                 |        |               |                 |   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|-----------------------------------|-----------------|--------|---------------|-----------------|---|-----------------|-----------------|--------------|-------------|--------------------------|-----------|-----------------------------|------------|--|-----|----|-------------|-----|------|---------|--|--|--|----|----|----|
| Client: <u>Mac Energy</u>         |                 |        |               |                 | Report Attention                        |                 |                 |              |             | Lab Use Only             |           |                             |            |  | TAT |    | EPA Program |     |      |         |  |  |  |    |    |    |
| Project: <u>Partition Federal</u> |                 |        |               |                 | Report due by:                          |                 |                 |              |             | Lab WO# <u>P E111127</u> |           | Job Number <u>2046-0001</u> |            |  | 1D  | 3D | RCRA        | CWA | SDWA |         |  |  |  |    |    |    |
| Project Manager:                  |                 |        |               |                 | Attention: <u>ESS</u>                   |                 |                 |              |             | Analysis and Method      |           |                             |            |  |     |    |             |     |      | State   |  |  |  |    |    |    |
| Address:                          |                 |        |               |                 | Address: <u>2724 NW CO</u>              |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      | NM      |  |  |  | CO | UT | AZ |
| City, State, Zip                  |                 |        |               |                 | City, State, Zip <u>Hobbs, NM 88240</u> |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      | Remarks |  |  |  |    |    |    |
| Phone:                            |                 |        |               |                 | Phone:                                  |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
| Email:                            |                 |        |               |                 | Email: <u>Natalie</u>                   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
| Time Sampled                      | Date Sampled    | Matrix | No Containers | Sample ID       | Lab Number                              | DRO/ORO by 8015 | GRO/DRO by 8015 | BTEX by 8021 | VOC by 8260 | Chloride 300.0           | TCEQ 1005 | BGDOC - NM                  | BGDOC - TX |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   | <u>11-17-21</u> |        | <u>1</u>      | <u>SP 11</u>    | <u>21</u>                               |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        | <u>3</u>      | <u>SP 11 4'</u> | <u>22</u>                               |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        | <u>3</u>      | <u>T 1</u>      | <u>23</u>                               |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        | <u>3</u>      | <u>T 1 8'</u>   | <u>24</u>                               |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        |               |                 |   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        |               |                 |   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        |               |                 |   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        |               |                 |   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        |               |                 |   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        |               |                 |   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |
|                                   |                 |        |               |                 |   |                 |                 |              |             |                          |           |                             |            |  |     |    |             |     |      |         |  |  |  |    |    |    |

## Additional Instructions:

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

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

|                              |      |      |                          |      |      |   |
|------------------------------|------|------|--------------------------|------|------|---|
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time | Lab Use Only<br>Received on ice: <u>Y</u> / N<br>T1 _____ T2 _____ T3 _____<br>AVG Temp °C <u>4</u> |
| Relinquished by: (Signature) | Date | Time | Received by: (Signature) | Date | Time |   |

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

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

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

## Envirotech Analytical Laboratory

Printed: 11/22/2021 11:54:16AM

## 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:  | 11/22/21 11:41             | Work Order ID: | E111127        |
| Phone:  | (575) 390-6397                | Date Logged In: | 11/22/21 11:42             | Logged In By:  | Jessica Liesse |
| Email:  | Natalie@energystaffingllc.com | Due Date:       | 11/23/21 17:00 (1 day TAT) |                |                |

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? No
5. Were all samples received within holding time? Yes

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

Carrier: Lab CarrierSample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client InstructionComments/Resolution

No matrix or time sampled listed on COC.  
Samples #2-10 have no sampled date.

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

Date



envirotech Inc.

Report to:  
Natalie Gladden



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Mack Energy

Project Name: Mack Partition

Work Order: E307086

Job Number: 20046-0001

Received: 7/20/2023

Revision: 2

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
7/21/23

5796 U.S. Hwy 64  
Farmington, NM 87401

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



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.



Date Reported: 7/21/23



Natalie Gladden  
7 W. Compress Road  
Artesia, NM 88210

Project Name: Mack Partition  
Workorder: E307086  
Date Received: 7/20/2023 7:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/20/2023 7:00:00AM, under the Project Name: Mack Partition.

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

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

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

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

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
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**Alexa Michaels**  
Sample Custody Officer  
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[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
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[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

|  |  |                             |
|--|--|-----------------------------|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name: Mack Partition<br>Project Number: 20046-0001<br>Project Manager: Natalie Gladden | Reported:<br>07/21/23 17:15 |
|--|--|-----------------------------|

| Client Sample ID | Lab Sample ID | Matrix | Sampled  | Received | Container        |
|------------------|---------------|--------|----------|----------|------------------|
| SW1 - Surface    | E307086-01A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW1 - 2'         | E307086-02A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW2 - Surface    | E307086-03A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW2 - 2'         | E307086-04A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW3 - Surface    | E307086-05A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW3 - 2'         | E307086-06A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW4 - Surface    | E307086-07A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW4 - 2'         | E307086-08A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW5 - Surface    | E307086-09A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW5 - 2'         | E307086-10A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW-6 Surface     | E307086-11A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW-6 - 2'        | E307086-12A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW7 - Surface    | E307086-13A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW7 - 2'         | E307086-14A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW8 - Surface    | E307086-15A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW8 - 2'         | E307086-16A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW9 - Surface    | E307086-17A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW9 - 2'         | E307086-18A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW10 - Surface   | E307086-19A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW10 - 2'        | E307086-20A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW11 - Surface   | E307086-21A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW11 - 2'        | E307086-22A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW12 - Surface   | E307086-23A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |
| SW12 - 2'        | E307086-24A   | Soil   | 07/18/23 | 07/20/23 | Glass Jar, 2 oz. |



## Sample Data

|  |  |   |
|--|--|---|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name: Mack Partition<br>Project Number: 20046-0001<br>Project Manager: Natalie Gladden | <b>Reported:</b><br>7/21/2023 5:15:25PM |
|--|--|---|

### SW1 - Surface

**E307086-01**

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| <i>Surrogate: Bromofluorobenzene</i>                  | 93.4 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>               | 98.6 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <i>Surrogate: Toluene-d8</i>                          | 100 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| <i>Surrogate: Bromofluorobenzene</i>                  | 93.4 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>               | 98.6 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <i>Surrogate: Toluene-d8</i>                          | 100 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| <i>Surrogate: n-Nonane</i>                            | 87.9 % | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW1 - 2

## E307086-02

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 94.4 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 100 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 94.4 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 100 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 85.5 % | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW2 - Surface

E307086-03

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Benzene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 07/20/23    | 07/21/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 95.9 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 95.9 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2329054 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 07/20/23    | 07/21/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: n-Nonane                                   | 82.1 % | 50-200          |          | 07/20/23    | 07/21/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2329058 |
| Chloride  | ND     | 20.0            | 1        | 07/20/23    | 07/20/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW2 - 2

## E307086-04

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 95.3 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 98.9 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 95.3 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 98.9 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 83.9 % | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW3 - Surface

E307086-05

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Benzene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 07/20/23    | 07/21/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 93.7 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 98.2 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 93.7 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 98.2 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2329054 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 07/20/23    | 07/21/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: n-Nonane                                   | 82.8 % | 50-200          |          | 07/20/23    | 07/21/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2329058 |
| Chloride  | 59.2   | 20.0            | 1        | 07/20/23    | 07/20/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW3 - 2'

## E307086-06

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 93.2 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.7 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 93.2 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.7 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 81.6 % | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | 56.1   | 20.0            | 1           | 07/20/23 | 07/20/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW4 - Surface

E307086-07

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 95.2 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 100 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 95.2 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 100 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 80.0 % | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | 53.6   | 20.0            | 1           | 07/20/23 | 07/20/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW4 - 2'

## E307086-08

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Benzene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 07/20/23    | 07/21/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 95.7 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.9 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 99.5 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 95.7 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.9 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 99.5 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2329054 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 07/20/23    | 07/21/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: n-Nonane                                   | 86.6 % | 50-200          |          | 07/20/23    | 07/21/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2329058 |
| Chloride  | 51.4   | 20.0            | 1        | 07/20/23    | 07/20/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW5 - Surface

E307086-09

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Benzene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 07/20/23    | 07/21/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 95.2 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.8 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 95.2 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.8 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2329054 |
| Diesel Range Organics (C10-C28)                       | ND     | 50.0            | 2        | 07/20/23    | 07/21/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 100             | 2        | 07/20/23    | 07/21/23 |                |
| Surrogate: n-Nonane                                   | 107 %  | 50-200          |          | 07/20/23    | 07/21/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2329058 |
| Chloride  | ND     | 20.0            | 1        | 07/20/23    | 07/20/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

SW5 - 2'

E307086-10

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 94.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.3 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 94.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.3 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 50.0            | 2           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 100             | 2           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 105 %  | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW-6 Surface

## E307086-11

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 92.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 99.7 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 92.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 99.7 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 50.0            | 2           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 100             | 2           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 106 %  | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

SW-6 - 2'

E307086-12

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 95.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 93.9 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 95.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 93.9 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 50.0            | 2           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 100             | 2           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 110 %  | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW7 - Surface

## E307086-13

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Benzene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 07/20/23    | 07/21/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 94.6 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 94.6 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2329054 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 07/20/23    | 07/21/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: n-Nonane                                   | 115 %  | 50-200          |          | 07/20/23    | 07/21/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2329058 |
| Chloride  | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

SW7 - 2'

E307086-14

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 92.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 99.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 92.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 99.5 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 50.0            | 2           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 100             | 2           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 108 %  | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW8 - Surface

## E307086-15

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Benzene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 07/20/23    | 07/21/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 94.7 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.4 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 99.8 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         | 94.7 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.4 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 | 99.8 % | 70-130          |          | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2329054 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 07/20/23    | 07/21/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: n-Nonane                                   | 107 %  | 50-200          |          | 07/20/23    | 07/21/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2329058 |
| Chloride  | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW8 - 2'

## E307086-16

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 96.1 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.6 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 98.3 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         | 96.1 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.6 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 | 98.3 % | 70-130          |             | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 50.0            | 2           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 100             | 2           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 109 %  | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW9 - Surface

E307086-17

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.0 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 |        | 99.7 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.0 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 |        | 99.7 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 50.0            | 2           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 100             | 2           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   |        | 108 %           | 50-200      | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

SW9 - 2'

E307086-18

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Benzene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 07/20/23    | 07/21/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 106 %           | 70-130   | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 99.9 %          | 70-130   | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130   | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329049 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 106 %           | 70-130   | 07/20/23    | 07/21/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 99.9 %          | 70-130   | 07/20/23    | 07/21/23 |                |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130   | 07/20/23    | 07/21/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2329054 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 07/20/23    | 07/21/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: n-Nonane                                   |        | 113 %           | 50-200   | 07/20/23    | 07/21/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2329058 |
| Chloride  | ND     | 20.0            | 1        | 07/20/23    | 07/21/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW10 - Surface

## E307086-19

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.3 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 |        | 99.2 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.3 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 |        | 99.2 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   |        | 112 %           | 50-200      | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

SW10 - 2'

E307086-20

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/21/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         |        | 105 %           | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 99.3 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 |        | 99.4 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329049 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: Bromofluorobenzene                         |        | 105 %           | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 99.3 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| Surrogate: Toluene-d8                                 |        | 99.4 %          | 70-130      | 07/20/23 | 07/21/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329054 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   |        | 80.2 %          | 50-200      | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329058 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW11 - Surface

## E307086-21

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329050 |
| Benzene   | ND     | 0.0250          | 1        | 07/20/23    | 07/20/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 07/20/23    | 07/20/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 07/20/23    | 07/20/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 07/20/23    | 07/20/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 07/20/23    | 07/20/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 07/20/23    | 07/20/23 |                |
| Surrogate: Bromofluorobenzene                         | 96.5 % | 70-130          |          | 07/20/23    | 07/20/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.7 % | 70-130          |          | 07/20/23    | 07/20/23 |                |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |          | 07/20/23    | 07/20/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2329050 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 07/20/23    | 07/20/23 |                |
| Surrogate: Bromofluorobenzene                         | 96.5 % | 70-130          |          | 07/20/23    | 07/20/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.7 % | 70-130          |          | 07/20/23    | 07/20/23 |                |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |          | 07/20/23    | 07/20/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2329055 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 07/20/23    | 07/21/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 07/20/23    | 07/21/23 |                |
| Surrogate: n-Nonane                                   | 96.2 % | 50-200          |          | 07/20/23    | 07/21/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2329059 |
| Chloride  | ND     | 20.0            | 1        | 07/20/23    | 07/20/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

SW11 - 2'

E307086-22

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329050 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/20/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Surrogate: Bromofluorobenzene                         | 96.8 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.9 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: Toluene-d8                                 | 100 %  | 70-130          |             | 07/20/23 | 07/20/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329050 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |
| Surrogate: Bromofluorobenzene                         | 96.8 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.9 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: Toluene-d8                                 | 100 %  | 70-130          |             | 07/20/23 | 07/20/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329055 |       |
| Diesel Range Organics (C10-C28)                       | 46.8   | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | 73.3   | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 96.7 % | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329059 |       |
| Chloride  | 246    | 20.0            | 1           | 07/20/23 | 07/21/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

## SW12 - Surface

## E307086-23

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329050 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/20/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Surrogate: Bromofluorobenzene                         | 98.3 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.4 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/20/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329050 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |
| Surrogate: Bromofluorobenzene                         | 98.3 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.4 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/20/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329055 |       |
| Diesel Range Organics (C10-C28)                       | 48.8   | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | 78.7   | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 94.7 % | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329059 |       |
| Chloride  | 284    | 20.0            | 1           | 07/20/23 | 07/21/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Mack Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
7/21/2023 5:15:25PM

SW12 - 2'

E307086-24

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329050 |       |
| Benzene   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 07/20/23 | 07/20/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 07/20/23 | 07/20/23       |       |
| Surrogate: Bromofluorobenzene                         | 96.3 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 93.3 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/20/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2329050 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 07/20/23 | 07/20/23       |       |
| Surrogate: Bromofluorobenzene                         | 96.3 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 93.3 % | 70-130          |             | 07/20/23 | 07/20/23       |       |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |             | 07/20/23 | 07/20/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2329055 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 07/20/23 | 07/21/23       |       |
| Oil Range Organics (C28-C36)                          | 50.0   | 50.0            | 1           | 07/20/23 | 07/21/23       |       |
| Surrogate: n-Nonane                                   | 98.5 % | 50-200          |             | 07/20/23 | 07/21/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2329059 |       |
| Chloride  | ND     | 20.0            | 1           | 07/20/23 | 07/21/23       |       |



## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Mack Partition  | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 7/21/2023 5:15:25PM |

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

## Blank (2329049-BLK1)

Prepared: 07/20/23 Analyzed: 07/21/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| 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    | 0.472 |        | 0.500 |  | 94.3 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.485 |        | 0.500 |  | 96.9 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.504 |        | 0.500 |  | 101  | 70-130 |  |  |  |

## LCS (2329049-BS1)

Prepared: 07/20/23 Analyzed: 07/21/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| Benzene                          | 2.41  | 0.0250 | 2.50  |  | 96.3 | 70-130 |  |  |  |
| Ethylbenzene                     | 2.32  | 0.0250 | 2.50  |  | 93.0 | 70-130 |  |  |  |
| Toluene                          | 2.36  | 0.0250 | 2.50  |  | 94.5 | 70-130 |  |  |  |
| o-Xylene                         | 2.39  | 0.0250 | 2.50  |  | 95.6 | 70-130 |  |  |  |
| p,m-Xylene                       | 4.71  | 0.0500 | 5.00  |  | 94.3 | 70-130 |  |  |  |
| Total Xylenes                    | 7.10  | 0.0250 | 7.50  |  | 94.7 | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.472 |        | 0.500 |  | 94.3 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.493 |        | 0.500 |  | 98.6 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.503 |        | 0.500 |  | 101  | 70-130 |  |  |  |

## Matrix Spike (2329049-MS1)

Source: E307086-08

Prepared: 07/20/23 Analyzed: 07/21/23

|                                  |       |        |       |    |      |        |  |  |  |
|----------------------------------|-------|--------|-------|----|------|--------|--|--|--|
| Benzene                          | 2.23  | 0.0250 | 2.50  | ND | 89.2 | 48-131 |  |  |  |
| Ethylbenzene                     | 2.27  | 0.0250 | 2.50  | ND | 90.6 | 45-135 |  |  |  |
| Toluene                          | 2.28  | 0.0250 | 2.50  | ND | 91.4 | 48-130 |  |  |  |
| o-Xylene                         | 2.37  | 0.0250 | 2.50  | ND | 94.8 | 43-135 |  |  |  |
| p,m-Xylene                       | 4.64  | 0.0500 | 5.00  | ND | 92.8 | 43-135 |  |  |  |
| Total Xylenes                    | 7.01  | 0.0250 | 7.50  | ND | 93.4 | 43-135 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.470 |        | 0.500 |    | 93.9 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.500 |        | 0.500 |    | 99.9 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.502 |        | 0.500 |    | 100  | 70-130 |  |  |  |

## Matrix Spike Dup (2329049-MSD1)

Source: E307086-08

Prepared: 07/20/23 Analyzed: 07/21/23

|                                  |       |        |       |    |      |        |       |    |  |
|----------------------------------|-------|--------|-------|----|------|--------|-------|----|--|
| Benzene                          | 2.19  | 0.0250 | 2.50  | ND | 87.4 | 48-131 | 1.97  | 23 |  |
| Ethylbenzene                     | 2.27  | 0.0250 | 2.50  | ND | 90.8 | 45-135 | 0.154 | 27 |  |
| Toluene                          | 2.27  | 0.0250 | 2.50  | ND | 90.8 | 48-130 | 0.637 | 24 |  |
| o-Xylene                         | 2.34  | 0.0250 | 2.50  | ND | 93.7 | 43-135 | 1.17  | 27 |  |
| p,m-Xylene                       | 4.60  | 0.0500 | 5.00  | ND | 91.9 | 43-135 | 0.899 | 27 |  |
| Total Xylenes                    | 6.94  | 0.0250 | 7.50  | ND | 92.5 | 43-135 | 0.989 | 27 |  |
| Surrogate: Bromofluorobenzene    | 0.470 |        | 0.500 |    | 94.0 | 70-130 |       |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.498 |        | 0.500 |    | 99.6 | 70-130 |       |    |  |
| Surrogate: Toluene-d8            | 0.499 |        | 0.500 |    | 99.8 | 70-130 |       |    |  |





## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Mack Partition  | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 7/21/2023 5:15:25PM |

## Volatile Organic Compounds by EPA 8260B

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 (2329050-BLK1)

Prepared: 07/20/23 Analyzed: 07/20/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| 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    | 0.485 |        | 0.500 |  | 97.0 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.482 |        | 0.500 |  | 96.3 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.505 |        | 0.500 |  | 101  | 70-130 |  |  |  |

## LCS (2329050-BS1)

Prepared: 07/20/23 Analyzed: 07/20/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| Benzene                          | 2.45  | 0.0250 | 2.50  |  | 97.8 | 70-130 |  |  |  |
| Ethylbenzene                     | 2.41  | 0.0250 | 2.50  |  | 96.5 | 70-130 |  |  |  |
| Toluene                          | 2.45  | 0.0250 | 2.50  |  | 97.9 | 70-130 |  |  |  |
| o-Xylene                         | 2.45  | 0.0250 | 2.50  |  | 97.9 | 70-130 |  |  |  |
| p,m-Xylene                       | 4.87  | 0.0500 | 5.00  |  | 97.5 | 70-130 |  |  |  |
| Total Xylenes                    | 7.32  | 0.0250 | 7.50  |  | 97.6 | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.474 |        | 0.500 |  | 94.8 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.481 |        | 0.500 |  | 96.2 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.503 |        | 0.500 |  | 101  | 70-130 |  |  |  |

## Matrix Spike (2329050-MS1)

Source: E307086-22

Prepared: 07/20/23 Analyzed: 07/20/23

|                                  |       |        |       |    |      |        |  |  |  |
|----------------------------------|-------|--------|-------|----|------|--------|--|--|--|
| Benzene                          | 2.49  | 0.0250 | 2.50  | ND | 99.7 | 48-131 |  |  |  |
| Ethylbenzene                     | 2.47  | 0.0250 | 2.50  | ND | 98.8 | 45-135 |  |  |  |
| Toluene                          | 2.50  | 0.0250 | 2.50  | ND | 100  | 48-130 |  |  |  |
| o-Xylene                         | 2.56  | 0.0250 | 2.50  | ND | 102  | 43-135 |  |  |  |
| p,m-Xylene                       | 5.09  | 0.0500 | 5.00  | ND | 102  | 43-135 |  |  |  |
| Total Xylenes                    | 7.65  | 0.0250 | 7.50  | ND | 102  | 43-135 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.479 |        | 0.500 |    | 95.7 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.481 |        | 0.500 |    | 96.1 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.506 |        | 0.500 |    | 101  | 70-130 |  |  |  |

## Matrix Spike Dup (2329050-MSD1)

Source: E307086-22

Prepared: 07/20/23 Analyzed: 07/20/23

|                                  |       |        |       |    |      |        |      |    |  |
|----------------------------------|-------|--------|-------|----|------|--------|------|----|--|
| Benzene                          | 2.45  | 0.0250 | 2.50  | ND | 98.1 | 48-131 | 1.60 | 23 |  |
| Ethylbenzene                     | 2.44  | 0.0250 | 2.50  | ND | 97.6 | 45-135 | 1.20 | 27 |  |
| Toluene                          | 2.44  | 0.0250 | 2.50  | ND | 97.7 | 48-130 | 2.41 | 24 |  |
| o-Xylene                         | 2.52  | 0.0250 | 2.50  | ND | 101  | 43-135 | 1.79 | 27 |  |
| p,m-Xylene                       | 5.00  | 0.0500 | 5.00  | ND | 100  | 43-135 | 1.72 | 27 |  |
| Total Xylenes                    | 7.51  | 0.0250 | 7.50  | ND | 100  | 43-135 | 1.74 | 27 |  |
| Surrogate: Bromofluorobenzene    | 0.473 |        | 0.500 |    | 94.6 | 70-130 |      |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.494 |        | 0.500 |    | 98.7 | 70-130 |      |    |  |
| Surrogate: Toluene-d8            | 0.493 |        | 0.500 |    | 98.6 | 70-130 |      |    |  |



## QC Summary Data

|                    |                  |                 |   |
|--------------------|------------------|-----------------|---|
| Mack Energy        | Project Name:    | Mack Partition  | <b>Reported:</b><br>7/21/2023 5:15:25PM |
| 7 W. Compress Road | Project Number:  | 20046-0001      |   |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden |   |

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

## Blank (2329049-BLK1)

Prepared: 07/20/23 Analyzed: 07/21/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | ND    | 20.0 |       |  |      |        |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.472 |      | 0.500 |  | 94.3 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.485 |      | 0.500 |  | 96.9 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.504 |      | 0.500 |  | 101  | 70-130 |  |  |  |

## LCS (2329049-BS2)

Prepared: 07/20/23 Analyzed: 07/21/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 52.3  | 20.0 | 50.0  |  | 105  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.477 |      | 0.500 |  | 95.4 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.486 |      | 0.500 |  | 97.1 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.506 |      | 0.500 |  | 101  | 70-130 |  |  |  |

## Matrix Spike (2329049-MS2)

Source: E307086-08

Prepared: 07/20/23 Analyzed: 07/21/23

|                                  |       |      |       |    |      |        |  |  |  |
|----------------------------------|-------|------|-------|----|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 53.4  | 20.0 | 50.0  | ND | 107  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.480 |      | 0.500 |    | 95.9 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.497 |      | 0.500 |    | 99.3 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.514 |      | 0.500 |    | 103  | 70-130 |  |  |  |

## Matrix Spike Dup (2329049-MSD2)

Source: E307086-08

Prepared: 07/20/23 Analyzed: 07/21/23

|                                  |       |      |       |    |      |        |      |    |  |
|----------------------------------|-------|------|-------|----|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10) | 55.4  | 20.0 | 50.0  | ND | 111  | 70-130 | 3.71 | 20 |  |
| Surrogate: Bromofluorobenzene    | 0.493 |      | 0.500 |    | 98.6 | 70-130 |      |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.496 |      | 0.500 |    | 99.2 | 70-130 |      |    |  |
| Surrogate: Toluene-d8            | 0.514 |      | 0.500 |    | 103  | 70-130 |      |    |  |



## QC Summary Data

|                    |                  |                 |   |
|--------------------|------------------|-----------------|---|
| Mack Energy        | Project Name:    | Mack Partition  | <b>Reported:</b><br>7/21/2023 5:15:25PM |
| 7 W. Compress Road | Project Number:  | 20046-0001      |   |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden |   |

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

## Blank (2329050-BLK1)

Prepared: 07/20/23 Analyzed: 07/20/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | ND    | 20.0 |       |  |      |        |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.485 |      | 0.500 |  | 97.0 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.482 |      | 0.500 |  | 96.3 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.505 |      | 0.500 |  | 101  | 70-130 |  |  |  |

## LCS (2329050-BS2)

Prepared: 07/20/23 Analyzed: 07/20/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 53.2  | 20.0 | 50.0  |  | 106  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.482 |      | 0.500 |  | 96.3 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.483 |      | 0.500 |  | 96.5 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.509 |      | 0.500 |  | 102  | 70-130 |  |  |  |

## Matrix Spike (2329050-MS2)

Source: E307086-22

Prepared: 07/20/23 Analyzed: 07/20/23

|                                  |       |      |       |    |      |        |  |  |  |
|----------------------------------|-------|------|-------|----|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 58.0  | 20.0 | 50.0  | ND | 116  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.485 |      | 0.500 |    | 96.9 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.480 |      | 0.500 |    | 95.9 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.507 |      | 0.500 |    | 101  | 70-130 |  |  |  |

## Matrix Spike Dup (2329050-MSD2)

Source: E307086-22

Prepared: 07/20/23 Analyzed: 07/20/23

|                                  |       |      |       |    |      |        |      |    |  |
|----------------------------------|-------|------|-------|----|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10) | 60.6  | 20.0 | 50.0  | ND | 121  | 70-130 | 4.51 | 20 |  |
| Surrogate: Bromofluorobenzene    | 0.499 |      | 0.500 |    | 99.8 | 70-130 |      |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.488 |      | 0.500 |    | 97.6 | 70-130 |      |    |  |
| Surrogate: Toluene-d8            | 0.504 |      | 0.500 |    | 101  | 70-130 |      |    |  |



## QC Summary Data

|  |  |                                  |
|--|--|----------------------------------|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name: Mack Partition<br>Project Number: 20046-0001<br>Project Manager: Natalie Gladden | Reported:<br>7/21/2023 5:15:25PM |
|--|--|----------------------------------|

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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

## Blank (2329054-BLK1)

Prepared: 07/20/23 Analyzed: 07/21/23

|                                 |      |      |      |  |      |        |  |  |  |
|---------------------------------|------|------|------|--|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |      |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |      |        |  |  |  |
| Surrogate: n-Nonane             | 44.8 |      | 50.0 |  | 89.6 | 50-200 |  |  |  |

## LCS (2329054-BS1)

Prepared: 07/20/23 Analyzed: 07/21/23

|                                 |      |      |      |  |      |        |  |  |  |
|---------------------------------|------|------|------|--|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | 204  | 25.0 | 250  |  | 81.7 | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 43.1 |      | 50.0 |  | 86.3 | 50-200 |  |  |  |

## Matrix Spike (2329054-MS1)

Source: E307086-07

Prepared: 07/20/23 Analyzed: 07/21/23

|                                 |      |      |      |    |      |        |  |  |  |
|---------------------------------|------|------|------|----|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | 224  | 25.0 | 250  | ND | 89.4 | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 39.8 |      | 50.0 |    | 79.6 | 50-200 |  |  |  |

## Matrix Spike Dup (2329054-MSD1)

Source: E307086-07

Prepared: 07/20/23 Analyzed: 07/21/23

|                                 |      |      |      |    |      |        |       |    |  |
|---------------------------------|------|------|------|----|------|--------|-------|----|--|
| Diesel Range Organics (C10-C28) | 222  | 25.0 | 250  | ND | 89.0 | 38-132 | 0.488 | 20 |  |
| Surrogate: n-Nonane             | 38.0 |      | 50.0 |    | 76.0 | 50-200 |       |    |  |





## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Mack Partition  | <b>Reported:</b>    |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 7/21/2023 5:15:25PM |

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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

## Blank (2329055-BLK1)

Prepared: 07/20/23 Analyzed: 07/21/23

|                                 |      |      |      |  |      |        |  |  |  |
|---------------------------------|------|------|------|--|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |      |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |      |        |  |  |  |
| Surrogate: <i>n</i> -Nonane     | 49.4 |      | 50.0 |  | 98.8 | 50-200 |  |  |  |

## LCS (2329055-BS1)

Prepared: 07/20/23 Analyzed: 07/21/23

|                                 |      |      |      |  |      |        |  |  |  |
|---------------------------------|------|------|------|--|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | 232  | 25.0 | 250  |  | 93.0 | 38-132 |  |  |  |
| Surrogate: <i>n</i> -Nonane     | 48.5 |      | 50.0 |  | 97.1 | 50-200 |  |  |  |

## Matrix Spike (2329055-MS1)

Source: E307093-08

Prepared: 07/20/23 Analyzed: 07/21/23

|                                 |      |      |      |    |      |        |  |  |  |
|---------------------------------|------|------|------|----|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | 234  | 25.0 | 250  | ND | 93.4 | 38-132 |  |  |  |
| Surrogate: <i>n</i> -Nonane     | 43.5 |      | 50.0 |    | 87.0 | 50-200 |  |  |  |

## Matrix Spike Dup (2329055-MSD1)

Source: E307093-08

Prepared: 07/20/23 Analyzed: 07/21/23

|                                 |      |      |      |    |      |        |      |    |  |
|---------------------------------|------|------|------|----|------|--------|------|----|--|
| Diesel Range Organics (C10-C28) | 236  | 25.0 | 250  | ND | 94.5 | 38-132 | 1.19 | 20 |  |
| Surrogate: <i>n</i> -Nonane     | 45.1 |      | 50.0 |    | 90.1 | 50-200 |      |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Mack Partition  | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 7/21/2023 5:15:25PM |

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 (2329058-BLK1)            |     |      |     |    | Prepared: 07/20/23 Analyzed: 07/20/23 |        |                                       |    |  |
| Chloride                        | ND  | 20.0 |     |    |                                       |        |                                       |    |  |
| LCS (2329058-BS1)               |     |      |     |    | Prepared: 07/20/23 Analyzed: 07/20/23 |        |                                       |    |  |
| Chloride                        | 262 | 20.0 | 250 |    | 105                                   | 90-110 |                                       |    |  |
| Matrix Spike (2329058-MS1)      |     |      |     |    | Source: E307086-01                    |        | Prepared: 07/20/23 Analyzed: 07/20/23 |    |  |
| Chloride                        | 269 | 20.0 | 250 | ND | 108                                   | 80-120 |                                       |    |  |
| Matrix Spike Dup (2329058-MSD1) |     |      |     |    | Source: E307086-01                    |        | Prepared: 07/20/23 Analyzed: 07/20/23 |    |  |
| Chloride                        | 270 | 20.0 | 250 | ND | 108                                   | 80-120 | 0.249                                 | 20 |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Mack Partition  | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 7/21/2023 5:15:25PM |

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 (2329059-BLK1)            |     |      |     |    | Prepared: 07/20/23 Analyzed: 07/20/23 |        |                                       |    |  |
| Chloride                        | ND  | 20.0 |     |    |                                       |        |                                       |    |  |
| LCS (2329059-BS1)               |     |      |     |    | Prepared: 07/20/23 Analyzed: 07/20/23 |        |                                       |    |  |
| Chloride                        | 253 | 20.0 | 250 |    | 101                                   | 90-110 |                                       |    |  |
| Matrix Spike (2329059-MS1)      |     |      |     |    | Source: E307086-21                    |        | Prepared: 07/20/23 Analyzed: 07/20/23 |    |  |
| Chloride                        | 263 | 20.0 | 250 | ND | 105                                   | 80-120 |                                       |    |  |
| Matrix Spike Dup (2329059-MSD1) |     |      |     |    | Source: E307086-21                    |        | Prepared: 07/20/23 Analyzed: 07/21/23 |    |  |
| Chloride                        | 262 | 20.0 | 250 | ND | 105                                   | 80-120 | 0.541                                 | 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:    | Mack Partition  |                |
| 7 W. Compress Road | Project Number:  | 20046-0001      | Reported:      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 07/21/23 17:15 |

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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

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





### Chain of Custody

Additional Instructions:

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

Received on file: W. A. M.  
 T1 \_\_\_\_\_ T2 \_\_\_\_\_ T3 \_\_\_\_\_  
 AVG. Temp. °C 4.0

Page

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 is limited to the amount paid for on the report.

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## Project Information

## Chain of Custody

Page 2 of 3

|   |              |        |                   |               |  |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|---|--------------|--------|-------------------|---------------|--|--|--|--|--|------------------------|--|--|--|--|------------------------------|--|--|-------------|----|--------------|----------|-----|------|--|-------------|--|--|--|--|-------------|--|--|--|--|----------------|--|--|--|--|----------|--|--|--|--|----------|--|--|--|--|-------|--|--|--|--|
| Client: <u>Max Energy</u>               |              |        |                   |               | Bill To  |  |  |  |  | Lab Use Only           |  |  |  |  | TAT                          |  |  | EPA Program |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Project: <u>max partition</u>           |              |        |                   |               | Attention: <u>ESS</u>                          |  |  |  |  | Lab WO# <u>E307084</u> |  |  |  |  | Job Number <u>20046-0001</u> |  |  | 1D          | 2D | 3D           | Standard | CWA | SDWA |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Project Manager: <u>Natalie Gladden</u> |              |        |                   |               | Address: <u>2724 NW COUNTY ROAD</u>            |  |  |  |  | Analysis and Method    |  |  |  |  |                              |  |  | RCRA        |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Address:                                |              |        |                   |               | City, State, Zip <u>HOBBS, NM 88240</u>        |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| City, State, Zip                        |              |        |                   |               | Phone: <u>575-393-9048</u>                     |  |  |  |  | DRO/RO by 8015         |  |  |  |  | GRO/RO by 8015               |  |  |             |    | BTEX by 8021 |          |     |      |  | VOC by 8260 |  |  |  |  | Metals 6010 |  |  |  |  | Chloride 300.0 |  |  |  |  | BGDOC NM |  |  |  |  | BGDOC TX |  |  |  |  | State |  |  |  |  |
| Phone:                                  |              |        |                   |               | EMAIL TO: <u>Natalie@energystaffingllc.com</u> |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Email:                                  |              |        |                   |               | Dakoatah@energystaffingllc.com                 |  |  |  |  | NM                     |  |  |  |  | CO                           |  |  |             |    | UT           |          |     |      |  | AZ          |  |  |  |  | TX          |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Report due by:                          |              |        |                   |               |  |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Time Sampled                            | Date Sampled | Matrix | No. of Containers | Sample ID     | Lab Number                                     | Remarks  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   | 7/19/23      | S      | 1                 | SW-6 surface  | 11   | <div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; right: 0; font-size: 2em;">X</span> </div> |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW-6 - 2'     | 12   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW7- surface  | 13   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW7- 2'       | 14   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW8- surface  | 15   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW8- 2'       | 16   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW9- surface  | 17   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW9- 2'       | 18   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW10- surface | 19   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW10- 2'      | 20   |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   | 7/18/23      | S      | 1                 | SW10- surface |  |  |  |  |  |                        |  |  |  |  |                              |  |  |             |    |              |          |     |      |  |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |

## Additional Instructions:

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

Sampled by:

Andy Toruqa

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

|                              |         |      |                          |         |      |   |  |
|------------------------------|---------|------|--------------------------|---------|------|---|--|
| Relinquished by: (Signature) | Date    | Time | Received by: (Signature) | Date    | Time | Lab Use Only  |  |
| Andy Toruqa                  | 7-19-23 | 1230 | Carmelita Pank           | 7-19-23 | 1230 | Received on ice: <input checked="" type="radio"/> N |  |
| Carmelita Pank               | 7-19-23 | 1600 | Andre Messo              | 7-19-23 | 1730 | T1 T2 T3  |  |
| Andre Messo                  | 7-19-23 | 2345 | Juan Jose                | 7/20/23 | 7:00 | AVG Temp °C: 4.0                                    |  |

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:



**Additional Instructions:**

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## Envirotech Analytical Laboratory

Printed: 7/20/2023 9:59:32AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

|         |                               |                 |                            |                |              |
|---------|-------------------------------|-----------------|----------------------------|----------------|--------------|
| Client: | Mack Energy                   | Date Received:  | 07/20/23 07:00             | Work Order ID: | E307086      |
| Phone:  | (575) 390-6397                | Date Logged In: | 07/18/23 15:52             | Logged In By:  | Caitlin Mars |
| Email:  | Natalie@energystaffingllc.com | Due Date:       | 07/21/23 17:00 (1 day TAT) |                |              |

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? No
5. Were all samples received within holding time? Yes

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

Carrier: CourierComments/Resolution

Time sampled not provided on COC per client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

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

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.



Report to:  
Natalie Gladden



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Mack Energy

Project Name: Partition  
Work Order: E308018  
Job Number: 20046-0001  
Received: 8/3/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/4/23

5796 U.S. Hwy 64  
Farmington, NM 87401

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



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/4/23

Natalie Gladden  
7 W. Compress Road  
Artesia, NM 88210



Project Name: Partition  
Workorder: E308018  
Date Received: 8/3/2023 6:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/3/2023 6:30:00AM, under the Project Name: Partition.

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

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

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

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

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

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Sample Summary

|                    |                  |                 |                             |
|--------------------|------------------|-----------------|-----------------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:<br>08/04/23 15:49 |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                             |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden |                             |

| Client Sample ID | Lab Sample ID | Matrix | Sampled  | Received | Container        |
|------------------|---------------|--------|----------|----------|------------------|
| SW 11-4'         | E308018-01A   | Soil   | 08/01/23 | 08/03/23 | Glass Jar, 2 oz. |
| SW 12-4'         | E308018-02A   | Soil   | 08/01/23 | 08/03/23 | Glass Jar, 2 oz. |





## Sample Data

|  |  |  |  |
|--|--|--|--|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name:<br>Project Number:<br>Project Manager: | Partition<br>20046-0001<br>Natalie Gladden | <b>Reported:</b><br>8/4/2023 3:49:55PM |
|--|--|--|--|

### SW 11-4'

### E308018-01

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2331067 |
| Benzene   | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/02/23    | 08/03/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| <i>Surrogate: Bromofluorobenzene</i>                  |        | 110 %           | 70-130   | 08/02/23    | 08/03/23 |                |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>               |        | 95.1 %          | 70-130   | 08/02/23    | 08/03/23 |                |
| <i>Surrogate: Toluene-d8</i>                          |        | 103 %           | 70-130   | 08/02/23    | 08/03/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2331067 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/02/23    | 08/03/23 |                |
| <i>Surrogate: Bromofluorobenzene</i>                  |        | 110 %           | 70-130   | 08/02/23    | 08/03/23 |                |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>               |        | 95.1 %          | 70-130   | 08/02/23    | 08/03/23 |                |
| <i>Surrogate: Toluene-d8</i>                          |        | 103 %           | 70-130   | 08/02/23    | 08/03/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2331061 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/02/23    | 08/03/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/02/23    | 08/03/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 101 %           | 50-200   | 08/02/23    | 08/03/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2331073 |
| Chloride  | ND     | 20.0            | 1        | 08/02/23    | 08/03/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/4/2023 3:49:55PM

SW 12-4'

E308018-02

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2331067 |
| Benzene   | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/02/23    | 08/03/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/02/23    | 08/03/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 112 %           | 70-130   | 08/02/23    | 08/03/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 95.9 %          | 70-130   | 08/02/23    | 08/03/23 |                |
| Surrogate: Toluene-d8                                 |        | 105 %           | 70-130   | 08/02/23    | 08/03/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2331067 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/02/23    | 08/03/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 112 %           | 70-130   | 08/02/23    | 08/03/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 95.9 %          | 70-130   | 08/02/23    | 08/03/23 |                |
| Surrogate: Toluene-d8                                 |        | 105 %           | 70-130   | 08/02/23    | 08/03/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2331061 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/02/23    | 08/03/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/02/23    | 08/03/23 |                |
| Surrogate: n-Nonane                                   |        | 97.3 %          | 50-200   | 08/02/23    | 08/03/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2331073 |
| Chloride  | ND     | 20.0            | 1        | 08/02/23    | 08/03/23 |                |



## QC Summary Data

|                    |                  |                 |                    |
|--------------------|------------------|-----------------|--------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:          |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                    |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/4/2023 3:49:55PM |

## Volatile Organic Compounds by EPA 8260B

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 (2331067-BLK1)

Prepared: 08/02/23 Analyzed: 08/03/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| 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    | 0.569 |        | 0.500 |  | 114  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.462 |        | 0.500 |  | 92.3 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.546 |        | 0.500 |  | 109  | 70-130 |  |  |  |

## LCS (2331067-BS1)

Prepared: 08/02/23 Analyzed: 08/03/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| Benzene                          | 2.70  | 0.0250 | 2.50  |  | 108  | 70-130 |  |  |  |
| Ethylbenzene                     | 2.76  | 0.0250 | 2.50  |  | 111  | 70-130 |  |  |  |
| Toluene                          | 2.67  | 0.0250 | 2.50  |  | 107  | 70-130 |  |  |  |
| o-Xylene                         | 2.68  | 0.0250 | 2.50  |  | 107  | 70-130 |  |  |  |
| p,m-Xylene                       | 5.34  | 0.0500 | 5.00  |  | 107  | 70-130 |  |  |  |
| Total Xylenes                    | 8.02  | 0.0250 | 7.50  |  | 107  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.549 |        | 0.500 |  | 110  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.463 |        | 0.500 |  | 92.6 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.550 |        | 0.500 |  | 110  | 70-130 |  |  |  |

## Matrix Spike (2331067-MS1)

Source: E308014-27

Prepared: 08/02/23 Analyzed: 08/03/23

|                                  |       |        |       |    |      |        |  |  |  |
|----------------------------------|-------|--------|-------|----|------|--------|--|--|--|
| Benzene                          | 2.58  | 0.0250 | 2.50  | ND | 103  | 48-131 |  |  |  |
| Ethylbenzene                     | 2.62  | 0.0250 | 2.50  | ND | 105  | 45-135 |  |  |  |
| Toluene                          | 2.62  | 0.0250 | 2.50  | ND | 105  | 48-130 |  |  |  |
| o-Xylene                         | 2.56  | 0.0250 | 2.50  | ND | 102  | 43-135 |  |  |  |
| p,m-Xylene                       | 5.26  | 0.0500 | 5.00  | ND | 105  | 43-135 |  |  |  |
| Total Xylenes                    | 7.82  | 0.0250 | 7.50  | ND | 104  | 43-135 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.570 |        | 0.500 |    | 114  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.446 |        | 0.500 |    | 89.2 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.529 |        | 0.500 |    | 106  | 70-130 |  |  |  |

## Matrix Spike Dup (2331067-MSD1)

Source: E308014-27

Prepared: 08/02/23 Analyzed: 08/03/23

|                                  |       |        |       |    |      |        |       |    |  |
|----------------------------------|-------|--------|-------|----|------|--------|-------|----|--|
| Benzene                          | 2.59  | 0.0250 | 2.50  | ND | 103  | 48-131 | 0.193 | 23 |  |
| Ethylbenzene                     | 2.66  | 0.0250 | 2.50  | ND | 106  | 45-135 | 1.21  | 27 |  |
| Toluene                          | 2.66  | 0.0250 | 2.50  | ND | 106  | 48-130 | 1.51  | 24 |  |
| o-Xylene                         | 2.77  | 0.0250 | 2.50  | ND | 111  | 43-135 | 7.84  | 27 |  |
| p,m-Xylene                       | 5.48  | 0.0500 | 5.00  | ND | 110  | 43-135 | 4.07  | 27 |  |
| Total Xylenes                    | 8.25  | 0.0250 | 7.50  | ND | 110  | 43-135 | 5.32  | 27 |  |
| Surrogate: Bromofluorobenzene    | 0.581 |        | 0.500 |    | 116  | 70-130 |       |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.456 |        | 0.500 |    | 91.2 | 70-130 |       |    |  |
| Surrogate: Toluene-d8            | 0.525 |        | 0.500 |    | 105  | 70-130 |       |    |  |



## QC Summary Data

|                    |                  |                 |                    |
|--------------------|------------------|-----------------|--------------------|
| Mack Energy        | Project Name:    | Partition       | <b>Reported:</b>   |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                    |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/4/2023 3:49:55PM |

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

## Blank (2331067-BLK1)

Prepared: 08/02/23 Analyzed: 08/03/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | ND    | 20.0 |       |  |      |        |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.569 |      | 0.500 |  | 114  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.462 |      | 0.500 |  | 92.3 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.546 |      | 0.500 |  | 109  | 70-130 |  |  |  |

## LCS (2331067-BS2)

Prepared: 08/02/23 Analyzed: 08/03/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 58.1  | 20.0 | 50.0  |  | 116  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.546 |      | 0.500 |  | 109  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.459 |      | 0.500 |  | 91.8 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.487 |      | 0.500 |  | 97.4 | 70-130 |  |  |  |

## Matrix Spike (2331067-MS2)

Source: E308014-27

Prepared: 08/02/23 Analyzed: 08/03/23

|                                  |       |      |       |    |      |        |  |  |  |
|----------------------------------|-------|------|-------|----|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 60.2  | 20.0 | 50.0  | ND | 120  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.571 |      | 0.500 |    | 114  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.485 |      | 0.500 |    | 97.0 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.533 |      | 0.500 |    | 107  | 70-130 |  |  |  |

## Matrix Spike Dup (2331067-MSD2)

Source: E308014-27

Prepared: 08/02/23 Analyzed: 08/03/23

|                                  |       |      |       |    |      |        |      |    |  |
|----------------------------------|-------|------|-------|----|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10) | 58.2  | 20.0 | 50.0  | ND | 116  | 70-130 | 3.39 | 20 |  |
| Surrogate: Bromofluorobenzene    | 0.576 |      | 0.500 |    | 115  | 70-130 |      |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.496 |      | 0.500 |    | 99.1 | 70-130 |      |    |  |
| Surrogate: Toluene-d8            | 0.536 |      | 0.500 |    | 107  | 70-130 |      |    |  |





QC Summary Data

|                    |                  |                 |                    |
|--------------------|------------------|-----------------|--------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:          |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                    |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/4/2023 3:49:55PM |

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2331061-BLK1) Prepared: 08/02/23 Analyzed: 08/03/23

|                                 |      |      |      |  |      |        |  |  |  |
|---------------------------------|------|------|------|--|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |      |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |      |        |  |  |  |
| Surrogate: n-Nonane             | 47.3 |      | 50.0 |  | 94.6 | 50-200 |  |  |  |

LCS (2331061-BS1) Prepared: 08/02/23 Analyzed: 08/03/23

|                                 |      |      |      |  |      |        |  |  |  |
|---------------------------------|------|------|------|--|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | 256  | 25.0 | 250  |  | 103  | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 47.1 |      | 50.0 |  | 94.2 | 50-200 |  |  |  |

Matrix Spike (2331061-MS1) Source: E308016-24 Prepared: 08/02/23 Analyzed: 08/03/23

|                                 |      |      |      |    |      |        |  |  |  |
|---------------------------------|------|------|------|----|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | 278  | 25.0 | 250  | ND | 111  | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 46.5 |      | 50.0 |    | 93.0 | 50-200 |  |  |  |

Matrix Spike Dup (2331061-MSD1) Source: E308016-24 Prepared: 08/02/23 Analyzed: 08/03/23

|                                 |      |      |      |    |      |        |      |    |  |
|---------------------------------|------|------|------|----|------|--------|------|----|--|
| Diesel Range Organics (C10-C28) | 275  | 25.0 | 250  | ND | 110  | 38-132 | 1.00 | 20 |  |
| Surrogate: n-Nonane             | 46.0 |      | 50.0 |    | 92.0 | 50-200 |      |    |  |



QC Summary Data

|                    |                  |                 |                    |
|--------------------|------------------|-----------------|--------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:          |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                    |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/4/2023 3:49:55PM |

Anions by EPA 300.0/9056A

Analyst: BA

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

|                                 |     |      |     |                                       |     |                                       |       |    |  |
|---------------------------------|-----|------|-----|---------------------------------------|-----|---------------------------------------|-------|----|--|
| Blank (2331073-BLK1)            |     |      |     | Prepared: 08/02/23 Analyzed: 08/03/23 |     |                                       |       |    |  |
| Chloride                        | ND  | 20.0 |     |                                       |     |                                       |       |    |  |
| LCS (2331073-BS1)               |     |      |     | Prepared: 08/02/23 Analyzed: 08/03/23 |     |                                       |       |    |  |
| Chloride                        | 270 | 20.0 | 250 |                                       | 108 | 90-110                                |       |    |  |
| Matrix Spike (2331073-MS1)      |     |      |     | Source: E308017-21                    |     | Prepared: 08/02/23 Analyzed: 08/03/23 |       |    |  |
| Chloride                        | 285 | 20.0 | 250 | ND                                    | 114 | 80-120                                |       |    |  |
| Matrix Spike Dup (2331073-MSD1) |     |      |     | Source: E308017-21                    |     | Prepared: 08/02/23 Analyzed: 08/03/23 |       |    |  |
| Chloride                        | 283 | 20.0 | 250 | ND                                    | 113 | 80-120                                | 0.804 | 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:    | Partition       |                |
| 7 W. Compress Road | Project Number:  | 20046-0001      | Reported:      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 08/04/23 15:49 |

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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

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



**Additional Instructions:**

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

Sampled by: Juan Solis

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

| Relinquished by: (Signature) | Date     | Time | Received by: (Signature) | Date   | Time | Lab Use Only   |
|------------------------------|----------|------|--------------------------|--------|------|--|
| Jon Solis                    | 08/01/23 |      | Michelle Cangelosi       | 8-2-23 | 1330 | Received on file: <input checked="" type="radio"/> Y <input type="radio"/> N |
| Michelle Cangelosi           | 8-2-23   | 1715 | Melvin Miso              | 8-2-23 | 1730 | T1 _____ T2 _____ T3 _____   |
| Melvin Miso                  | 8-2-23   | 2330 | Amber                    | 8-3-23 | 630  | AVC Temp: 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

Page 17

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

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



## Envirotech Analytical Laboratory

Printed: 8/3/2023 9:32:08AM

## 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:  | 08/03/23 06:30             | Work Order ID: | E308018      |
| Phone:  | (575) 390-6397                | Date Logged In: | 08/02/23 15:40             | Logged In By:  | Caitlin Mars |
| Email:  | Natalie@energystaffingllc.com | Due Date:       | 08/04/23 17:00 (1 day TAT) |                |              |

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? No
5. Were all samples received within holding time? Yes

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

Carrier: CourierComments/Resolution

Times sampled are not documented on the COC.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
 

|                      |     |
|----------------------|-----|
| Sample ID?           | Yes |
| Date/Time Collected? | Yes |
| Collectors name?     | No  |

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

**MACK ENERGY: PARTITION FEDERAL  
DELINEATION PHOTOS**







## Natalie Gladden

---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Friday, July 21, 2023 3:07 PM  
**To:** Natalie Gladden  
**Cc:** Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD  
**Subject:** RE: [EXTERNAL] Mack Energy - Partition Federal Composite Notification

Good afternoon Natalie,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Sincerely,

Shelly

[Shelly Wells](#) \* Environmental Specialist-Advanced  
Administrative Permitting Program  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive | Santa Fe, NM 87505  
(505)469-7520 | [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

**From:** Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>  
**Sent:** Friday, July 21, 2023 1:30 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Subject:** FW: [EXTERNAL] Mack Energy - Partition Federal Composite Notification  
**Importance:** High

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505



(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)

[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



**From:** Natalie Gladden <[natalie@energystaffingllc.com](mailto:natalie@energystaffingllc.com)>

**Sent:** Friday, July 21, 2023 1:05 PM

**To:** ocdonline, emnrd, EMNRD <[emnrd.ocdonline@emnrd.nm.gov](mailto:emnrd.ocdonline@emnrd.nm.gov)>; CFO\_Spill, BLM\_NM <[BLM\\_NM\\_CFO\\_Spill@blm.gov](mailto:BLM_NM_CFO_Spill@blm.gov)>; Amos, James A <[JAMOS@BLM.GOV](mailto:JAMOS@BLM.GOV)>; Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>; Harimon, Jocelyn, EMNRD <[Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)>

**Cc:** [mattbuckles@mec.com](mailto:mattbuckles@mec.com)

**Subject:** [EXTERNAL] Mack Energy - Partition Federal Composite Notification

**Importance:** High

**CAUTION:** This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

ESS has completed the delineation and remediation portion of this project. At this time, we would like to request the 48 hour notification for the composite sampling that needs to be completed for the below release:

Site Name: Partition Federal

DOR: 3/15/2020

Incident Number: NRM2008663010

If you have any questions or concerns, please do not hesitate to contact me.

*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](mailto:natalie@energystaffingllc.com)



Company Name: MACK Location Name: PARTITION Release Date:

| SP ID  | Depth | Titr | PID | L-BTEX | L-GRO | L-DRO | L-ORO | L-TPH | L-CHL | Soil | Notes |
|--------|-------|------|-----|--------|-------|-------|-------|-------|-------|------|-------|
| COMP1  | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 25.2  |      |       |
| COMP2  | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 25.3  |      |       |
| COMP3  | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 25    |      |       |
| COMP4  | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 24.9  |      |       |
| COMP5  | 1     | 240  | L   | ND     | ND    | ND    | ND    | ND    | 25.4  |      |       |
| COMP6  | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP7  | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP8  | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP9  | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP10 | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP11 | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP12 | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP13 | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP14 | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP15 | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |
| COMP16 | 1     | 160  | L   | ND     | ND    | ND    | ND    | ND    | ND    |      |       |

|        |   |     |   |    |    |    |    |    |      |  |  |
|--------|---|-----|---|----|----|----|----|----|------|--|--|
| COMP17 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP18 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP19 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP20 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP21 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP22 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP23 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP24 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP25 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP26 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP27 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP28 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP29 | 1 | 240 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP30 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP31 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |
| COMP32 | 1 | 160 | L | ND | ND | ND | ND | ND | 76.2 |  |  |
| COMP33 | 1 | 160 | L | ND | ND | ND | ND | ND | ND   |  |  |



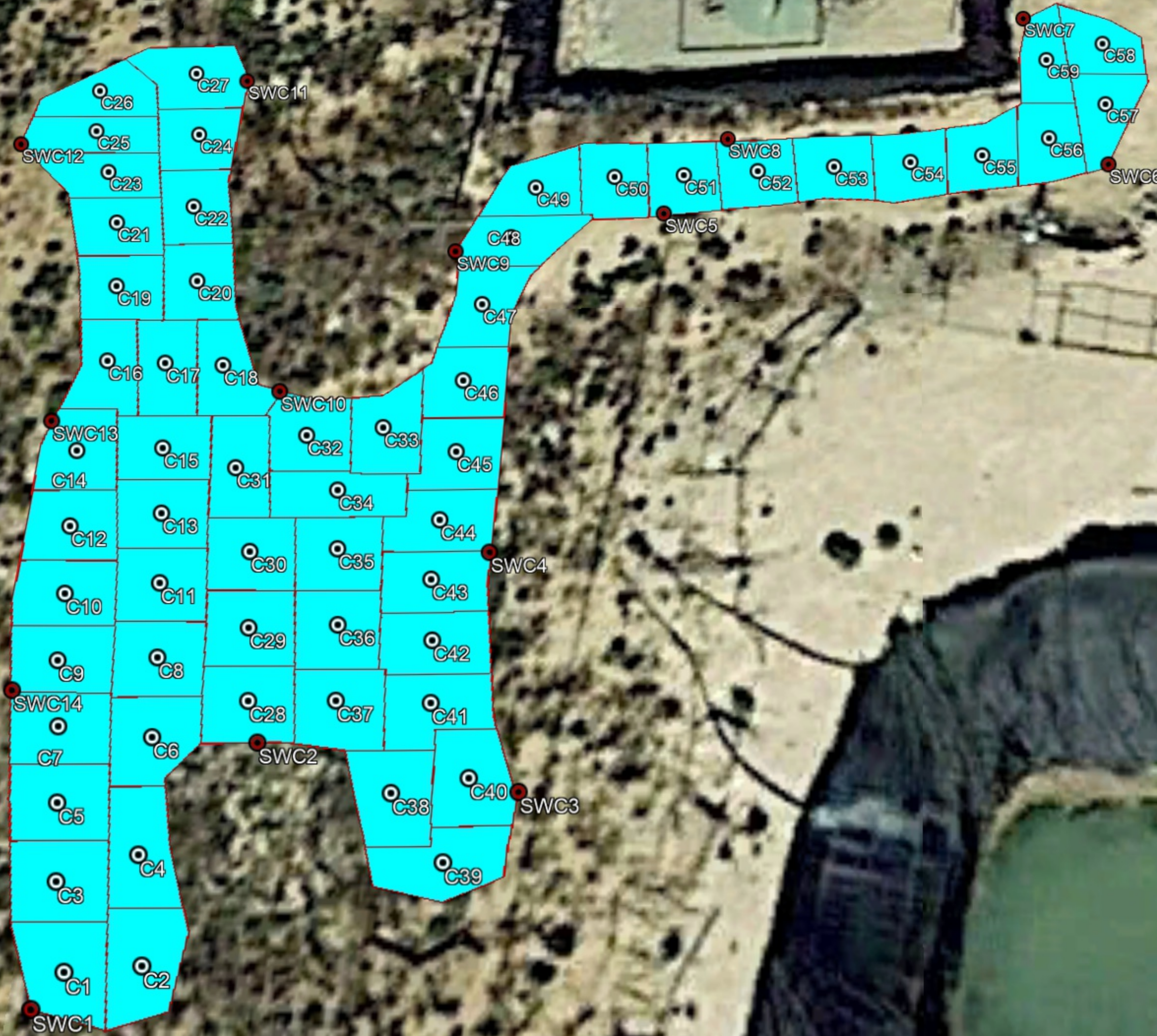
|        |   |     |   |    |    |    |    |    |    |  |  |
|--------|---|-----|---|----|----|----|----|----|----|--|--|
| COMP34 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP35 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP36 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP37 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP38 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP39 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP40 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP41 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP42 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP43 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP44 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP45 | 1 | 160 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP46 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP47 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP48 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP49 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
| COMP50 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |

|         |   |     |   |    |    |    |    |    |    |  |  |
|---------|---|-----|---|----|----|----|----|----|----|--|--|
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP51  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP52  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP53  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP54  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP55  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP56  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP57  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP58  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| COMP59  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP1 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP2 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP3 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP4 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP5 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP6 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP7 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|         |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP8 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |

|          |   |     |   |    |    |    |    |    |    |  |  |
|----------|---|-----|---|----|----|----|----|----|----|--|--|
|          |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP9  | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|          |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP10 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|          |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP11 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|          |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP12 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|          |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP13 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|          |   |     |   |    |    |    |    |    |    |  |  |
| SWCOMP14 | 1 | 240 | L | ND | ND | ND | ND | ND | ND |  |  |
|          |   |     |   |    |    |    |    |    |    |  |  |



- Composite
- Side Wall Composite





**CLIENT: MACK ENERGY****LOCATION: PARTITION FEDERAL**

| SAMPLE ID | LATITUDE   | LONGITUDE    |
|-----------|------------|--------------|
| C1        | 32.823122° | -103.823184° |
| C2        | 32.823124° | -103.823155° |
| C3        | 32.823152° | -103.823193° |
| C4        | 32.823161° | -103.823163° |
| C5        | 32.823179° | -103.823198° |
| C6        | 32.823202° | -103.823165° |
| C7        | 32.823206° | -103.823203° |
| C8        | 32.823231° | -103.823168° |
| C9        | 32.823230° | -103.823208° |
| C10       | 32.823255° | -103.823210° |
| C11       | 32.823259° | -103.823172° |
| C12       | 32.823281° | -103.823213° |
| C13       | 32.823286° | -103.823176° |
| C14       | 32.823311° | -103.823216° |
| C15       | 32.823312° | -103.823180° |
| C16       | 32.823348° | -103.823210° |
| C17       | 32.823347° | -103.823185° |
| C18       | 32.823346° | -103.823160° |
| C19       | 32.823380° | -103.823212° |
| C20       | 32.823382° | -103.823177° |
| C21       | 32.823408° | -103.823217° |
| C22       | 32.823415° | -103.823184° |
| C23       | 32.823431° | -103.823225° |
| C24       | 32.823448° | -103.823187° |
| C25       | 32.823450° | -103.823234° |
| C26       | 32.823469° | -103.823236° |
| C27       | 32.823477° | -103.823193° |
| C28       | 32.823215° | -103.823129° |
| C29       | 32.823242° | -103.823133° |
| C30       | 32.823271° | -103.823137° |
| C31       | 32.823304° | -103.823148° |
| C32       | 32.823317° | -103.823120° |
| C33       | 32.823320° | -103.823088° |
| C34       | 32.823295° | -103.823104° |
| C35       | 32.823272° | -103.823101° |
| C36       | 32.823243° | -103.823097° |
| C37       | 32.823215° | -103.823094° |
| C38       | 32.823182° | -103.823068° |
| C39       | 32.823158° | -103.823045° |
| C40       | 32.823187° | -103.823038° |

|       |            |              |
|-------|------------|--------------|
| C41   | 32.823214° | -103.823056° |
| C42   | 32.823237° | -103.823058° |
| C43   | 32.823260° | -103.823061° |
| C44   | 32.823283° | -103.823060° |
| C45   | 32.823310° | -103.823056° |
| C46   | 32.823339° | -103.823056° |
| C47   | 32.823371° | -103.823051° |
| C48   | 32.823400° | -103.823041° |
| C49   | 32.823422° | -103.823032° |
| C50   | 32.823426° | -103.822997° |
| C51   | 32.823426° | -103.822966° |
| C52   | 32.823427° | -103.822933° |
| C53   | 32.823428° | -103.822899° |
| C54   | 32.823429° | -103.822865° |
| C55   | 32.823432° | -103.822833° |
| C56   | 32.823440° | -103.822803° |
| C57   | 32.823456° | -103.822777° |
| C58   | 32.823485° | -103.822777° |
| C59   | 32.823477° | -103.822803° |
| SWC1  | 32.823110° | -103.823194° |
| SWC2  | 32.823200° | -103.823123° |
| SWC3  | 32.823182° | -103.823018° |
| SWC4  | 32.823270° | -103.823038° |
| SWC5  | 32.823409° | -103.822974° |
| SWC6  | 32.823428° | -103.822777° |
| SWC7  | 32.823497° | -103.822813° |
| SWC8  | 32.823442° | -103.822947° |
| SWC9  | 32.823394° | -103.823065° |
| SWC10 | 32.823335° | -103.823134° |
| SWC11 | 32.823473° | -103.823169° |
| SWC12 | 32.823444° | -103.823267° |
| SWC13 | 32.823323° | -103.823229° |
| SWC14 | 32.823219° | -103.823224° |

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: | Partition  |
| Work Order:   | E308069    |
| Job Number:   | 20046-0001 |
| Received:     | 8/11/2023  |

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/14/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/14/23

Natalie Gladden  
7 W. Compress Road  
Artesia, NM 88210



Project Name: Partition  
Workorder: E308069  
Date Received: 8/11/2023 7:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/11/2023 7:00:00AM, under the Project Name: Partition.

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

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

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

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

Respectfully,

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## Sample Summary

|                    |                  |                 |                                    |
|--------------------|------------------|-----------------|------------------------------------|
| Mack Energy        | Project Name:    | Partition       | <b>Reported:</b><br>08/14/23 15:28 |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                                    |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden |                                    |

| Client Sample ID | Lab Sample ID | Matrix | Sampled  | Received | Container        |
|------------------|---------------|--------|----------|----------|------------------|
| SP Comp 1 - 1'   | E308069-01A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 2 - 1'   | E308069-02A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 3 - 1'   | E308069-03A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 4 - 1'   | E308069-04A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 5 - 1'   | E308069-05A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 6 - 1'   | E308069-06A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 7 - 1'   | E308069-07A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 8 - 1'   | E308069-08A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 9 - 1'   | E308069-09A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 10 - 1'  | E308069-10A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 11 - 1'  | E308069-11A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 12 - 1'  | E308069-12A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 13 - 1'  | E308069-13A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 14 - 1'  | E308069-14A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 15 - 1'  | E308069-15A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 16 - 1'  | E308069-16A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 17 - 1'  | E308069-17A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 18 - 1'  | E308069-18A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 19 - 1'  | E308069-19A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 20 - 1'  | E308069-20A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 21 - 1'  | E308069-21A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 22 - 1'  | E308069-22A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 23 - 1'  | E308069-23A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 24 - 1'  | E308069-24A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |
| SP Comp 25 - 1'  | E308069-25A   | Soil   | 08/09/23 | 08/11/23 | Glass Jar, 2 oz. |



## Sample Data

|  |  |  |   |
|--|--|--|---|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name:<br>Project Number:<br>Project Manager: | Partition<br>20046-0001<br>Natalie Gladden | <b>Reported:</b><br>8/14/2023 3:28:58PM |
|--|--|--|---|

### SP Comp 1 - 1'

E308069-01

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: Bromofluorobenzene</i>                  |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>               |        | 96.0 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: Toluene-d8</i>                          |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: Bromofluorobenzene</i>                  |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>               |        | 96.0 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: Toluene-d8</i>                          |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/11/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 95.8 %          | 50-200   | 08/11/23    | 08/11/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332102 |
| Chloride  | 25.2   | 20.0            | 1        | 08/11/23    | 08/12/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 2 - 1'

E308069-02

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.2 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.5 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.2 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.5 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/11/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: n-Nonane                                   | 94.0 % | 50-200          |          | 08/11/23    | 08/11/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332102 |
| Chloride  | 25.3   | 20.0            | 1        | 08/11/23    | 08/12/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 3 - 1'

E308069-03

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 95.5 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 99.6 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 95.5 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 99.6 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 96.8 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332102 |
| Chloride  | 25.0   | 20.0            | 1        | 08/11/23    | 08/12/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 4 - 1'

E308069-04

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.7 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.5 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.7 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.5 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   | 95.3 % | 50-200          |          | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332102 |
| Chloride  | 24.9   | 20.0            | 1        | 08/11/23    | 08/12/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 5 - 1'

E308069-05

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.3 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.3 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 94.6 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332102 |
| Chloride  | 25.4   | 20.0            | 1        | 08/11/23    | 08/12/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 6 - 1'

E308069-06

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 94.8 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 94.8 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 94.6 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332102 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/12/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 7 - 1'

E308069-07

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.4 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.4 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.4 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.4 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 95.5 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332102 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/12/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 8 - 1'

E308069-08

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 103 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.9 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 97.2 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 103 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.9 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 97.2 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 96.5 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332102 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/12/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 9 - 1'

E308069-09

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.5 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.3 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.5 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.3 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   | 95.1 % | 50-200          |          | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 10 - 1'

## E308069-10

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.0 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.8 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 99.9 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.0 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 95.8 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 99.9 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   | 95.1 % | 50-200          |          | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 11 - 1'

E308069-11

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 98.3 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.9 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 98.3 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.9 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   | 96.9 % | 50-200          |          | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 12 - 1'

E308069-12

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 94.3 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 94.3 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 95.8 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 13 - 1'

E308069-13

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 102 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.8 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 96.9 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 102 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.8 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 96.9 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 95.6 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 14 - 1'

E308069-14

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 98.3 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.7 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 98.3 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.7 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 102 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   | 96.0 % | 50-200          |          | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 15 - 1'

## E308069-15

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 104 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 99.2 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.6 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 104 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 99.2 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.6 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 97.9 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 16 - 1'

E308069-16

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.1 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 98.2 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 100 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.1 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 98.2 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 100 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   | 99.0 % | 50-200          |          | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 17 - 1'

E308069-17

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 102 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.3 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 97.9 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 102 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.3 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 97.9 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 91.4 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 18 - 1'

E308069-18

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.0 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.0 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 99.4 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.0 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.0 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 99.4 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   | 88.3 % | 50-200          |          | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 19 - 1'

E308069-19

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.4 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.4 %          | 70-130   | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 |        | 100 %           | 70-130   | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   |        | 89.5 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 20 - 1'

## E308069-20

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/11/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.9 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.8 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 103 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2332105 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.9 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.8 % | 70-130          |          | 08/11/23    | 08/11/23 |                |
| Surrogate: Toluene-d8                                 | 103 %  | 70-130          |          | 08/11/23    | 08/11/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: JL |          | Batch: 2332097 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| Surrogate: n-Nonane                                   | 86.9 % | 50-200          |          | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 21 - 1'

E308069-21

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2332092 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        | 96.6 %          | 70-130   | 08/11/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2332092 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/14/23 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        | 84.4 %          | 70-130   | 08/11/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        | mg/kg           | mg/kg    | Analyst: JL |          | Batch: 2332100 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/11/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 93.4 %          | 50-200   | 08/11/23    | 08/11/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        | mg/kg           | mg/kg    | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 22 - 1'

E308069-22

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2332092 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/12/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/12/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/12/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/12/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/12/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/12/23 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        | 96.9 %          | 70-130   | 08/11/23    | 08/12/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2332092 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/12/23 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        | 84.9 %          | 70-130   | 08/11/23    | 08/12/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        | mg/kg           | mg/kg    | Analyst: JL |          | Batch: 2332100 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/11/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/11/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 94.4 %          | 50-200   | 08/11/23    | 08/11/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        | mg/kg           | mg/kg    | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 23 - 1'

E308069-23

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2332092 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/11/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/11/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/11/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/11/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/11/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/11/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.0 % | 70-130          |             | 08/11/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2332092 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/11/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 84.5 % | 70-130          |             | 08/11/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: JL |          | Batch: 2332100 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/11/23 | 08/12/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/11/23 | 08/12/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 91.4 % | 50-200          |             | 08/11/23 | 08/12/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2332098 |       |
| Chloride  | ND     | 20.0            | 1           | 08/11/23 | 08/11/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 24 - 1'

E308069-24

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2332092 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        | 94.5 %          | 70-130   | 08/11/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2332092 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/14/23 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        | 85.5 %          | 70-130   | 08/11/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        | mg/kg           | mg/kg    | Analyst: JL |          | Batch: 2332100 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 92.6 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        | mg/kg           | mg/kg    | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/14/2023 3:28:58PM

## SP Comp 25 - 1'

E308069-25

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2332092 |
| Benzene   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/11/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/11/23    | 08/14/23 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        | 93.9 %          | 70-130   | 08/11/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2332092 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/11/23    | 08/14/23 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        | 83.6 %          | 70-130   | 08/11/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        | mg/kg           | mg/kg    | Analyst: JL |          | Batch: 2332100 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/11/23    | 08/12/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/11/23    | 08/12/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 96.3 %          | 50-200   | 08/11/23    | 08/12/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        | mg/kg           | mg/kg    | Analyst: BA |          | Batch: 2332098 |
| Chloride  | ND     | 20.0            | 1        | 08/11/23    | 08/11/23 |                |





## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/14/2023 3:28:58PM |

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

## Blank (2332105-BLK1)

Prepared: 08/11/23 Analyzed: 08/11/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| 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    | 0.504 |        | 0.500 |  | 101  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.487 |        | 0.500 |  | 97.3 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.503 |        | 0.500 |  | 101  | 70-130 |  |  |  |

## LCS (2332105-BS1)

Prepared: 08/11/23 Analyzed: 08/11/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| Benzene                          | 2.51  | 0.0250 | 2.50  |  | 100  | 70-130 |  |  |  |
| Ethylbenzene                     | 2.34  | 0.0250 | 2.50  |  | 93.6 | 70-130 |  |  |  |
| Toluene                          | 2.44  | 0.0250 | 2.50  |  | 97.5 | 70-130 |  |  |  |
| o-Xylene                         | 2.50  | 0.0250 | 2.50  |  | 100  | 70-130 |  |  |  |
| p,m-Xylene                       | 4.93  | 0.0500 | 5.00  |  | 98.6 | 70-130 |  |  |  |
| Total Xylenes                    | 7.43  | 0.0250 | 7.50  |  | 99.1 | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.510 |        | 0.500 |  | 102  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.475 |        | 0.500 |  | 94.9 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.514 |        | 0.500 |  | 103  | 70-130 |  |  |  |

## Matrix Spike (2332105-MS1)

Source: E308069-09

Prepared: 08/11/23 Analyzed: 08/11/23

|                                  |       |        |       |    |      |        |  |  |  |
|----------------------------------|-------|--------|-------|----|------|--------|--|--|--|
| Benzene                          | 2.56  | 0.0250 | 2.50  | ND | 103  | 48-131 |  |  |  |
| Ethylbenzene                     | 2.41  | 0.0250 | 2.50  | ND | 96.5 | 45-135 |  |  |  |
| Toluene                          | 2.50  | 0.0250 | 2.50  | ND | 99.8 | 48-130 |  |  |  |
| o-Xylene                         | 2.61  | 0.0250 | 2.50  | ND | 104  | 43-135 |  |  |  |
| p,m-Xylene                       | 5.16  | 0.0500 | 5.00  | ND | 103  | 43-135 |  |  |  |
| Total Xylenes                    | 7.77  | 0.0250 | 7.50  | ND | 104  | 43-135 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.505 |        | 0.500 |    | 101  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.475 |        | 0.500 |    | 95.0 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.510 |        | 0.500 |    | 102  | 70-130 |  |  |  |

## Matrix Spike Dup (2332105-MSD1)

Source: E308069-09

Prepared: 08/11/23 Analyzed: 08/11/23

|                                  |       |        |       |    |      |        |      |    |  |
|----------------------------------|-------|--------|-------|----|------|--------|------|----|--|
| Benzene                          | 2.27  | 0.0250 | 2.50  | ND | 90.7 | 48-131 | 12.2 | 23 |  |
| Ethylbenzene                     | 2.13  | 0.0250 | 2.50  | ND | 85.3 | 45-135 | 12.3 | 27 |  |
| Toluene                          | 2.24  | 0.0250 | 2.50  | ND | 89.6 | 48-130 | 10.8 | 24 |  |
| o-Xylene                         | 2.25  | 0.0250 | 2.50  | ND | 90.1 | 43-135 | 14.7 | 27 |  |
| p,m-Xylene                       | 4.46  | 0.0500 | 5.00  | ND | 89.2 | 43-135 | 14.5 | 27 |  |
| Total Xylenes                    | 6.71  | 0.0250 | 7.50  | ND | 89.5 | 43-135 | 14.5 | 27 |  |
| Surrogate: Bromofluorobenzene    | 0.504 |        | 0.500 |    | 101  | 70-130 |      |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.465 |        | 0.500 |    | 93.0 | 70-130 |      |    |  |
| Surrogate: Toluene-d8            | 0.521 |        | 0.500 |    | 104  | 70-130 |      |    |  |



## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/14/2023 3:28:58PM |

## Volatile Organics by EPA 8021B

Analyst: IY

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

## Blank (2332092-BLK1)

Prepared: 08/11/23 Analyzed: 08/12/23

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| Ethylbenzene                        | ND   | 0.0250 |      |  |      |        |  |  |  |
| Toluene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| o-Xylene                            | ND   | 0.0250 |      |  |      |        |  |  |  |
| p,m-Xylene                          | ND   | 0.0500 |      |  |      |        |  |  |  |
| Total Xylenes                       | ND   | 0.0250 |      |  |      |        |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.78 |        | 8.00 |  | 97.2 | 70-130 |  |  |  |

## LCS (2332092-BS1)

Prepared: 08/11/23 Analyzed: 08/12/23

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | 5.12 | 0.0250 | 5.00 |  | 102  | 70-130 |  |  |  |
| Ethylbenzene                        | 4.91 | 0.0250 | 5.00 |  | 98.3 | 70-130 |  |  |  |
| Toluene                             | 5.12 | 0.0250 | 5.00 |  | 102  | 70-130 |  |  |  |
| o-Xylene                            | 5.08 | 0.0250 | 5.00 |  | 102  | 70-130 |  |  |  |
| p,m-Xylene                          | 10.1 | 0.0500 | 10.0 |  | 101  | 70-130 |  |  |  |
| Total Xylenes                       | 15.2 | 0.0250 | 15.0 |  | 101  | 70-130 |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.84 |        | 8.00 |  | 98.0 | 70-130 |  |  |  |

## Matrix Spike (2332092-MS1)

Source: E308069-22

Prepared: 08/11/23 Analyzed: 08/12/23

|                                     |      |        |      |    |      |        |  |  |  |
|-------------------------------------|------|--------|------|----|------|--------|--|--|--|
| Benzene                             | 4.86 | 0.0250 | 5.00 | ND | 97.3 | 54-133 |  |  |  |
| Ethylbenzene                        | 4.70 | 0.0250 | 5.00 | ND | 93.9 | 61-133 |  |  |  |
| Toluene                             | 4.88 | 0.0250 | 5.00 | ND | 97.6 | 61-130 |  |  |  |
| o-Xylene                            | 4.84 | 0.0250 | 5.00 | ND | 96.8 | 63-131 |  |  |  |
| p,m-Xylene                          | 9.71 | 0.0500 | 10.0 | ND | 97.1 | 63-131 |  |  |  |
| Total Xylenes                       | 14.5 | 0.0250 | 15.0 | ND | 97.0 | 63-131 |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.79 |        | 8.00 |    | 97.4 | 70-130 |  |  |  |

## Matrix Spike Dup (2332092-MSD1)

Source: E308069-22

Prepared: 08/11/23 Analyzed: 08/12/23

|                                     |      |        |      |    |      |        |      |    |  |
|-------------------------------------|------|--------|------|----|------|--------|------|----|--|
| Benzene                             | 4.73 | 0.0250 | 5.00 | ND | 94.6 | 54-133 | 2.84 | 20 |  |
| Ethylbenzene                        | 4.55 | 0.0250 | 5.00 | ND | 90.9 | 61-133 | 3.25 | 20 |  |
| Toluene                             | 4.73 | 0.0250 | 5.00 | ND | 94.7 | 61-130 | 3.01 | 20 |  |
| o-Xylene                            | 4.69 | 0.0250 | 5.00 | ND | 93.9 | 63-131 | 3.04 | 20 |  |
| p,m-Xylene                          | 9.40 | 0.0500 | 10.0 | ND | 94.0 | 63-131 | 3.21 | 20 |  |
| Total Xylenes                       | 14.1 | 0.0250 | 15.0 | ND | 94.0 | 63-131 | 3.15 | 20 |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.80 |        | 8.00 |    | 97.5 | 70-130 |      |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/14/2023 3:28:58PM |

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

Blank (2332092-BLK1) Prepared: 08/11/23 Analyzed: 08/12/23

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | ND   | 20.0 |      |  |      |        |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 6.86 |      | 8.00 |  | 85.7 | 70-130 |  |  |  |

LCS (2332092-BS2) Prepared: 08/11/23 Analyzed: 08/12/23

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | 44.1 | 20.0 | 50.0 |  | 88.1 | 70-130 |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 6.88 |      | 8.00 |  | 86.0 | 70-130 |  |  |  |

Matrix Spike (2332092-MS2) Source: E308069-22 Prepared: 08/11/23 Analyzed: 08/14/23

|   |      |      |      |    |      |        |  |  |  |
|---|------|------|------|----|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | 47.8 | 20.0 | 50.0 | ND | 95.7 | 70-130 |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 6.79 |      | 8.00 |    | 84.9 | 70-130 |  |  |  |

Matrix Spike Dup (2332092-MSD2) Source: E308069-22 Prepared: 08/11/23 Analyzed: 08/14/23

|   |      |      |      |    |      |        |      |    |  |
|---|------|------|------|----|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10)        | 45.5 | 20.0 | 50.0 | ND | 91.1 | 70-130 | 4.90 | 20 |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 6.77 |      | 8.00 |    | 84.6 | 70-130 |      |    |  |



## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | <b>Reported:</b>    |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/14/2023 3:28:58PM |

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

## Blank (2332105-BLK1)

Prepared: 08/11/23 Analyzed: 08/11/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | ND    | 20.0 |       |  |      |        |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.504 |      | 0.500 |  | 101  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.487 |      | 0.500 |  | 97.3 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.503 |      | 0.500 |  | 101  | 70-130 |  |  |  |

## LCS (2332105-BS2)

Prepared: 08/11/23 Analyzed: 08/11/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 53.0  | 20.0 | 50.0  |  | 106  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.503 |      | 0.500 |  | 101  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.472 |      | 0.500 |  | 94.4 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.524 |      | 0.500 |  | 105  | 70-130 |  |  |  |

## Matrix Spike (2332105-MS2)

Source: E308069-09

Prepared: 08/11/23 Analyzed: 08/11/23

|                                  |       |      |       |    |      |        |  |  |  |
|----------------------------------|-------|------|-------|----|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 57.7  | 20.0 | 50.0  | ND | 115  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.513 |      | 0.500 |    | 103  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.476 |      | 0.500 |    | 95.1 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.520 |      | 0.500 |    | 104  | 70-130 |  |  |  |

## Matrix Spike Dup (2332105-MSD2)

Source: E308069-09

Prepared: 08/11/23 Analyzed: 08/11/23

|                                  |       |      |       |    |      |        |      |    |  |
|----------------------------------|-------|------|-------|----|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10) | 56.0  | 20.0 | 50.0  | ND | 112  | 70-130 | 3.03 | 20 |  |
| Surrogate: Bromofluorobenzene    | 0.504 |      | 0.500 |    | 101  | 70-130 |      |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.485 |      | 0.500 |    | 96.9 | 70-130 |      |    |  |
| Surrogate: Toluene-d8            | 0.517 |      | 0.500 |    | 103  | 70-130 |      |    |  |





QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/14/2023 3:28:58PM |

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| Blank (2332097-BLK1)            |      |      |      |  | Prepared: 08/11/23 Analyzed: 08/11/23 |        |  |  |  |
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |                                       |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |                                       |        |  |  |  |
| Surrogate: n-Nonane             | 48.0 |      | 50.0 |  | 96.0                                  | 50-200 |  |  |  |

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| LCS (2332097-BS1)               |      |      |      |  | Prepared: 08/11/23 Analyzed: 08/11/23 |        |  |  |  |
| Diesel Range Organics (C10-C28) | 241  | 25.0 | 250  |  | 96.3                                  | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 42.2 |      | 50.0 |  | 84.4                                  | 50-200 |  |  |  |

|                                 |      |      |      |    |                    |        |                                       |  |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|--|--|
| Matrix Spike (2332097-MS1)      |      |      |      |    | Source: E308069-01 |        | Prepared: 08/11/23 Analyzed: 08/11/23 |  |  |
| Diesel Range Organics (C10-C28) | 237  | 25.0 | 250  | ND | 95.0               | 38-132 |                                       |  |  |
| Surrogate: n-Nonane             | 41.0 |      | 50.0 |    | 81.9               | 50-200 |                                       |  |  |

|                                 |      |      |      |    |                    |        |                                       |    |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|----|--|
| Matrix Spike Dup (2332097-MSD1) |      |      |      |    | Source: E308069-01 |        | Prepared: 08/11/23 Analyzed: 08/11/23 |    |  |
| Diesel Range Organics (C10-C28) | 249  | 25.0 | 250  | ND | 99.7               | 38-132 | 4.89                                  | 20 |  |
| Surrogate: n-Nonane             | 41.6 |      | 50.0 |    | 83.3               | 50-200 |                                       |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/14/2023 3:28:58PM |

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| Blank (2332100-BLK1)            |      |      |      |  | Prepared: 08/11/23 Analyzed: 08/11/23 |        |  |  |  |
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |                                       |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |                                       |        |  |  |  |
| Surrogate: n-Nonane             | 53.4 |      | 50.0 |  | 107                                   | 50-200 |  |  |  |

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| LCS (2332100-BS1)               |      |      |      |  | Prepared: 08/11/23 Analyzed: 08/11/23 |        |  |  |  |
| Diesel Range Organics (C10-C28) | 263  | 25.0 | 250  |  | 105                                   | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 46.7 |      | 50.0 |  | 93.4                                  | 50-200 |  |  |  |

|                                 |      |      |      |      |                    |        |                                       |  |  |
|---------------------------------|------|------|------|------|--------------------|--------|---------------------------------------|--|--|
| Matrix Spike (2332100-MS1)      |      |      |      |      | Source: E308068-21 |        | Prepared: 08/11/23 Analyzed: 08/11/23 |  |  |
| Diesel Range Organics (C10-C28) | 304  | 25.0 | 250  | 33.5 | 108                | 38-132 |                                       |  |  |
| Surrogate: n-Nonane             | 45.1 |      | 50.0 |      | 90.2               | 50-200 |                                       |  |  |

|                                 |      |      |      |      |                    |        |                                       |    |  |
|---------------------------------|------|------|------|------|--------------------|--------|---------------------------------------|----|--|
| Matrix Spike Dup (2332100-MSD1) |      |      |      |      | Source: E308068-21 |        | Prepared: 08/11/23 Analyzed: 08/11/23 |    |  |
| Diesel Range Organics (C10-C28) | 301  | 25.0 | 250  | 33.5 | 107                | 38-132 | 1.20                                  | 20 |  |
| Surrogate: n-Nonane             | 45.4 |      | 50.0 |      | 90.8               | 50-200 |                                       |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/14/2023 3:28:58PM |

Anions by EPA 300.0/9056A

Analyst: BA

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

|                                 |     |      |     |                                       |      |                                       |       |    |  |
|---------------------------------|-----|------|-----|---------------------------------------|------|---------------------------------------|-------|----|--|
| Blank (2332098-BLK1)            |     |      |     | Prepared: 08/11/23 Analyzed: 08/11/23 |      |                                       |       |    |  |
| Chloride                        | ND  | 20.0 |     |                                       |      |                                       |       |    |  |
| LCS (2332098-BS1)               |     |      |     | Prepared: 08/11/23 Analyzed: 08/11/23 |      |                                       |       |    |  |
| Chloride                        | 247 | 20.0 | 250 |                                       | 99.0 | 90-110                                |       |    |  |
| Matrix Spike (2332098-MS1)      |     |      |     | Source: E308069-09                    |      | Prepared: 08/11/23 Analyzed: 08/11/23 |       |    |  |
| Chloride                        | 252 | 20.0 | 250 | ND                                    | 101  | 80-120                                |       |    |  |
| Matrix Spike Dup (2332098-MSD1) |     |      |     | Source: E308069-09                    |      | Prepared: 08/11/23 Analyzed: 08/11/23 |       |    |  |
| Chloride                        | 250 | 20.0 | 250 | ND                                    | 99.8 | 80-120                                | 0.804 | 20 |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/14/2023 3:28:58PM |

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 (2332102-BLK1)            |     |      |     |      | Prepared: 08/11/23 Analyzed: 08/11/23 |        |                                       |    |  |
| Chloride                        | ND  | 20.0 |     |      |                                       |        |                                       |    |  |
| LCS (2332102-BS1)               |     |      |     |      | Prepared: 08/11/23 Analyzed: 08/11/23 |        |                                       |    |  |
| Chloride                        | 258 | 20.0 | 250 |      | 103                                   | 90-110 |                                       |    |  |
| Matrix Spike (2332102-MS1)      |     |      |     |      | Source: E308068-21                    |        | Prepared: 08/11/23 Analyzed: 08/12/23 |    |  |
| Chloride                        | 342 | 20.0 | 250 | 86.0 | 103                                   | 80-120 |                                       |    |  |
| Matrix Spike Dup (2332102-MSD1) |     |      |     |      | Source: E308068-21                    |        | Prepared: 08/11/23 Analyzed: 08/12/23 |    |  |
| Chloride                        | 340 | 20.0 | 250 | 86.0 | 101                                   | 80-120 | 0.790                                 | 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:    | Partition       |                |
| 7 W. Compress Road | Project Number:  | 20046-0001      | Reported:      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 08/14/23 15:28 |

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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

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

## Project Information

## Chain of Custody

Page 1 of 3

|   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |                              |  |  |  |             |    |    |          |     |      |
|---|--|--|--|--|--|--|--|--|--|-------------------------|--|--|--|--|------------------------------|--|--|--|-------------|----|----|----------|-----|------|
| Client: <b>Mock Energy</b>              |  |  |  |  | Bill To  |  |  |  |  | Lab Use Only            |  |  |  |  | TAT                          |  |  |  | EPA Program |    |    |          |     |      |
| Project: <b>Perkaton</b>                |  |  |  |  | Attention: <b>ESS</b>                          |  |  |  |  | Lab WO# <b>E 308069</b> |  |  |  |  | Job Number <b>20046-0001</b> |  |  |  | 1D          | 2D | 3D | Standard | CWA | SDWA |
| Project Manager: <b>Natalie Gledlen</b> |  |  |  |  | Address: <b>2724 NW COUNTY ROAD</b>            |  |  |  |  | Analysis and Method     |  |  |  |  |                              |  |  |  | RCRA        |    |    |          |     |      |
| Address:                                |  |  |  |  | City, State, Zip <b>HOBBS, NM 88240</b>        |  |  |  |  |                         |  |  |  |  |                              |  |  |  |             |    |    |          |     |      |
| City, State, Zip                        |  |  |  |  | Phone: <b>575-393-9048</b>                     |  |  |  |  |                         |  |  |  |  |                              |  |  |  | State       |    |    |          |     |      |
| Phone:                                  |  |  |  |  | EMAIL TO: <b>Natalie@energystaffingllc.com</b> |  |  |  |  |                         |  |  |  |  |                              |  |  |  |             |    |    |          |     |      |
| Email:                                  |  |  |  |  | Dakoatah@energystaffingllc.com                 |  |  |  |  |                         |  |  |  |  |                              |  |  |  | Remarks     |    |    |          |     |      |
| Report due by:                          |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |                              |  |  |  |             |    |    |          |     |      |

| Time Sampled | Date Sampled | Matrix | No. of Containers | Sample ID       | Lab Number | DRO/ORO by 8015 | GRO/DRO by 8015 | RIEX by 8021 | VOC by 8060 | Metals 6030 | Chloride 3000 | RGDOC NM | RGDOC TX |  |
|--------------|--------------|--------|-------------------|-----------------|------------|-----------------|-----------------|--------------|-------------|-------------|---------------|----------|----------|--|
|              | 08/09/23     | S      | 1                 | SP Comp 1 - 1'  | 1          |                 |                 |              |             |             |               | X        |          |  |
|              |              |        |                   | SP Comp 2 - 1'  | 2          |                 |                 |              |             |             |               |          |          |  |
|              |              |        |                   | SP Comp 3 - 1'  | 3          |                 |                 |              |             |             |               |          |          |  |
|              |              |        |                   | SP Comp 4 - 1'  | 4          |                 |                 |              |             |             |               |          |          |  |
|              |              |        |                   | SP Comp 5 - 1'  | 5          |                 |                 |              |             |             |               |          |          |  |
|              |              |        |                   | SP Comp 6 - 1'  | 6          |                 |                 |              |             |             |               |          |          |  |
|              |              |        |                   | SP Comp 7 - 1'  | 7          |                 |                 |              |             |             |               |          |          |  |
|              |              |        |                   | SP Comp 8 - 1'  | 8          |                 |                 |              |             |             |               |          |          |  |
|              |              |        |                   | SP Comp 9 - 1'  | 9          |                 |                 |              |             |             |               |          |          |  |
|              | 08/09/23     | S      | 1                 | SP Comp 10 - 1' | 10         |                 |                 |              |             |             |               | X        |          |  |

## Additional Instructions:

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

Sampled by: **Juan Solis**

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

|  |                         |                     |  |                        |                     |
|--|-------------------------|---------------------|--|------------------------|---------------------|
| Relinquished by: (Signature)<br><b>Juan Solis</b>        | Date<br><b>08/09/23</b> | Time                | Received by: (Signature)<br><b>Michelle Gonzales</b> | Date<br><b>8-10-23</b> | Time<br><b>1415</b> |
| Relinquished by: (Signature)<br><b>Michelle Gonzales</b> | Date<br><b>8-10-23</b>  | Time<br><b>1715</b> | Received by: (Signature)<br><b>Andrew M...</b>       | Date<br><b>8-10-23</b> | Time<br><b>1730</b> |
| Relinquished by: (Signature)<br><b>Andrew M...</b>       | Date<br><b>8-10-23</b>  | Time<br><b>2330</b> | Received by: (Signature)<br><b>Kyria R Hall</b>      | Date<br><b>8/11/23</b> | Time<br><b>0700</b> |

|                      |    |    |
|----------------------|----|----|
| Avg Temp, °C         |    |    |
| T1                   | T2 | T3 |
| AVG Temp °C <b>4</b> |    |    |

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 fee is based on the amount paid for on the report.)



## Project Information

## Chain of Custody

|   |              |        |                   |               |  |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|---|--------------|--------|-------------------|---------------|--|-----------------|-----------------|---------------|-------------|---------------------------|----------------|----------|----------|---------|-------------------------------|--|--|--|-------------|----|----|----------|-----|------|
| Client: <u>Moon Energy</u>              |              |        |                   |               | Bill To  |                 |                 |               |             | Lab Use Only              |                |          |          |         | TAT                           |  |  |  | EPA Program |    |    |          |     |      |
| Project: <u>Portation</u>               |              |        |                   |               | Attention: <u>ESS</u>                          |                 |                 |               |             | Lab Work: <u>E 308069</u> |                |          |          |         | Job Number: <u>20046-0001</u> |  |  |  | 1D          | 2D | 3D | Standard | CWA | SDWA |
| Project Manager: <u>Natalie Gladden</u> |              |        |                   |               | Address: <u>2724 NW COUNTY ROAD</u>            |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
| Address:                                |              |        |                   |               | City, State, Zip: <u>HOBBS, NM 88240</u>       |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
| City, State, Zip:                       |              |        |                   |               | Phone: <u>575-393-9048</u>                     |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
| Phone:                                  |              |        |                   |               | EMAIL TO: <u>Natalie@energystaffingllc.com</u> |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
| Email:                                  |              |        |                   |               | Dakoatah@energystaffingllc.com                 |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
| Report due by:                          |              |        |                   |               |  |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
| Time Sampled                            | Date Sampled | Matrix | No. of Containers | Sample ID     | Lab Number                                     | DRO/PRO by 8015 | GRO/PRO by 8015 | BY EX by 8015 | VOC by 8260 | Metals 6010               | Chloride 300.0 | RGDOC NM | RGDOC TX | Remarks |                               |  |  |  |             |    |    |          |     |      |
|   | 08/09/23     | S      | 1                 | SP Comp 11-1' | 11   |                 |                 |               |             |                           |                | X        |          |         |                               |  |  |  |             |    |    |          |     |      |
|   |              |        |                   | SP Comp 12-1' | 12   |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|   |              |        |                   | SP Comp 13-1' | 13   |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|   |              |        |                   | SP Comp 14-1' | 14   |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|   |              |        |                   | SP Comp 15-1' | 15   |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|   |              |        |                   | SP Comp 16-1' | 16   |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|   |              |        |                   | SP Comp 17-1' | 17   |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|   |              |        |                   | SP Comp 18-1' | 18   |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|   |              |        |                   | SP Comp 19-1' | 19   |                 |                 |               |             |                           |                |          |          |         |                               |  |  |  |             |    |    |          |     |      |
|   | 08/09/23     | S      | 1                 | SP Comp 20-1' | 20   |                 |                 |               |             |                           |                | X        |          |         |                               |  |  |  |             |    |    |          |     |      |

## Additional Instructions:

|   |  |          |  |      |  |  |  |         |  |      |  |
|---|--|----------|--|------|--|--|--|---------|--|------|--|
| I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.  |  |          |  |      |  | 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. |  |         |  |      |  |
| Sampled by: <u>Juan Solis</u>   |  |          |  |      |  |  |  |         |  |      |  |
| Relinquished by: (Signature)  |  | Date     |  | Time |  | Received by: (Signature)   |  | Date    |  | Time |  |
| <u>Juan Solis</u>   |  | 08/09/23 |  |      |  | <u>Michelle Gonzalez</u>   |  | 8-10-23 |  | 1415 |  |
| Relinquished by: (Signature)  |  | Date     |  | Time |  | Received by: (Signature)   |  | Date    |  | Time |  |
| <u>Michelle Gonzalez</u>  |  | 8-10-23  |  | 1715 |  | <u>Andrew Messo</u>  |  | 8-10-23 |  | 1730 |  |
| Relinquished by: (Signature)  |  | Date     |  | Time |  | Received by: (Signature)   |  | Date    |  | Time |  |
| <u>Andrew Messo</u>   |  | 8-10-23  |  | 2330 |  | <u>Kyisha R Heer</u>   |  | 8/11/23 |  | 0700 |  |
| 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 is limited to the amount paid for on the report. |  |          |  |      |  |  |  |         |  |      |  |



## Project Information

## Chain of Custody

|   |              |  |                   |                           |               |                               |                 |             |             |             |                |          |          |         |
|---|--------------|--|-------------------|---------------------------|---------------|-------------------------------|-----------------|-------------|-------------|-------------|----------------|----------|----------|---------|
| Client: <u>Mech Energy</u>              |              | Bill To  |                   | Lab Use Only              |               | TAT                           |                 |             |             | EPA Program |                |          |          |         |
| Project: <u>Perfitron</u>               |              | Attention: <u>ESS</u>                          |                   | Lab Work: <u>E 308069</u> |               | Job Number: <u>20046-0001</u> |                 | 1D          | 2D          | 3D          | Standard       | CWA      | SDWA     |         |
| Project Manager: <u>Natalie Gladden</u> |              | Address: <u>2724 NW COUNTY ROAD</u>            |                   | Analysis and Method       |               |                               |                 |             | X           |             |                |          |          |         |
| Address:                                |              | City, State, Zip: <u>HOBBS, NM 88240</u>       |                   |                           |               |                               |                 |             |             |             |                |          | RCRA     |         |
| City, State, Zip:                       |              | Phone: <u>575-393-9048</u>                     |                   |                           |               |                               |                 |             |             |             |                |          |          |         |
| Phone:                                  |              | EMAIL TO: <u>Natalie@energystaffingllc.com</u> |                   |                           |               |                               |                 |             |             |             |                |          |          |         |
| Email:                                  |              | <u>Dakoatah@energystaffingllc.com</u>          |                   |                           |               |                               |                 |             |             |             |                |          |          |         |
| Report due by:                          |              |  |                   |                           |               |                               |                 |             |             |             |                |          |          |         |
| Time Sampled                            | Date Sampled | Matrix   | No. of Containers | Sample ID                 | Lab Inventory | STOR 8015                     | GRO/DRO by 8015 | RTX by 8021 | VOC by 8460 | Metals 6010 | Chloride 300.0 | RGDOC NM | REDUC 1A | Remarks |
|   | 08/09/23     | S  | 1                 | SP Cond 21-1'             | 21            |                               |                 |             |             |             |                | X        |          |         |
|   | }            | }  | }                 | SP Cond 22-1'             | 22            |                               |                 |             |             |             |                | }        |          |         |
| SP Cond 23-1'                           |              |  |                   | 23                        |               |                               |                 |             |             |             |                |          |          |         |
| SP Cond 24-1'                           |              |  |                   | 24                        |               |                               |                 |             |             |             |                |          |          |         |
| 08/09/23                                | S            | 1  | SP Cond 25-1'     | 25                        |               |                               |                 |             |             |             |                | X        |          |         |

## Additional Instructions:

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

Sampled by: Juan Solis

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

|  |                         |                     |  |                        |                     |
|--|-------------------------|---------------------|--|------------------------|---------------------|
| Relinquished by: (Signature)<br><u>Juan Solis</u>        | Date<br><u>08/09/23</u> | Time<br><u>1415</u> | Received by: (Signature)<br><u>Michelle Gonzalez</u> | Date<br><u>8-10-23</u> | Time<br><u>1715</u> |
| Relinquished by: (Signature)<br><u>Michelle Gonzalez</u> | Date<br><u>8-10-23</u>  | Time<br><u>1715</u> | Received by: (Signature)<br><u>Anden mltro</u>       | Date<br><u>8-10-23</u> | Time<br><u>1730</u> |
| Relinquished by: (Signature)<br><u>Anden mltro</u>       | Date<br><u>8-10-23</u>  | Time<br><u>2330</u> | Received by: (Signature)<br><u>Kayla R Hall</u>      | Date<br><u>8/11/23</u> | Time<br><u>0700</u> |

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

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

Rule: 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 made available to those samples received by the laboratory with this OC. The fee for the analysis is the amount paid for on the report.



## Envirotech Analytical Laboratory

Printed: 8/11/2023 11:16:37AM

## 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:  | 08/11/23 07:00             | Work Order ID: | E308069        |
| Phone:  | (575) 390-6397                | Date Logged In: | 08/10/23 15:35             | Logged In By:  | Alexa Michaels |
| Email:  | Natalie@energystaffingllc.com | Due Date:       | 08/14/23 17:00 (1 day TAT) |                |                |

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? No
5. Were all samples received within holding time? Yes

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

Carrier: CourierComments/Resolution

Time sampled not provided on COC per client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:  
Natalie Gladden



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: Partition  
Work Order: E308084  
Job Number: 20046-0001  
Received: 8/14/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/15/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/15/23

Natalie Gladden  
7 W. Compress Road  
Artesia, NM 88210



Project Name: Partition  
Workorder: E308084  
Date Received: 8/14/2023 7:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/14/2023 7:00:00AM, under the Project Name: Partition.

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

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

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

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

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

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**Southern New Mexico Area**  
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**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

|                    |                  |                 |                |
|--------------------|------------------|-----------------|----------------|
| Mack Energy        | Project Name:    | Partition       | Reported:      |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 08/15/23 14:59 |

| Client Sample ID | Lab Sample ID | Matrix | Sampled  | Received | Container        |
|------------------|---------------|--------|----------|----------|------------------|
| SP Comp 26 - 1'  | E308084-01A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 27 - 1'  | E308084-02A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 28 - 1'  | E308084-03A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 29 - 1'  | E308084-04A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 30 - 1'  | E308084-05A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 31 - 1'  | E308084-06A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 32 - 1'  | E308084-07A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 33 - 1'  | E308084-08A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 34 - 1'  | E308084-09A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 35 - 1'  | E308084-10A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 36 - 1'  | E308084-11A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 37 - 1'  | E308084-12A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 38 - 1'  | E308084-13A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 39 - 1'  | E308084-14A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 40 - 1'  | E308084-15A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 41 - 1'  | E308084-16A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 42 - 1'  | E308084-17A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 43 - 1'  | E308084-18A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 44 - 1'  | E308084-19A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 45 - 1'  | E308084-20A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |



## Sample Data

|  |   |   |
|--|---|---|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name: Partition<br>Project Number: 20046-0001<br>Project Manager: Natalie Gladden | <b>Reported:</b><br>8/15/2023 2:59:12PM |
|--|---|---|

### SP Comp 26 - 1'

**E308084-01**

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| <i>Surrogate: Bromofluorobenzene</i>                  |        | 100 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>               |        | 95.8 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <i>Surrogate: Toluene-d8</i>                          |        | 101 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| <i>Surrogate: Bromofluorobenzene</i>                  |        | 100 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>               |        | 95.8 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <i>Surrogate: Toluene-d8</i>                          |        | 101 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/14/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/14/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 105 %           | 50-200   | 08/14/23    | 08/14/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 27 - 1'

E308084-02

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         |        | 101 %           | 70-130      | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.1 %          | 70-130      | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130      | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         |        | 101 %           | 70-130      | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.1 %          | 70-130      | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 |        | 101 %           | 70-130      | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333004 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: n-Nonane                                   |        | 103 %           | 50-200      | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333009 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 28 - 1'

E308084-03

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         | 96.8 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         | 96.8 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 97.6 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/14/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: n-Nonane                                   | 106 %  | 50-200          |          | 08/14/23    | 08/14/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 29 - 1'

E308084-04

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 105 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.8 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 97.1 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 105 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.8 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 97.1 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333004 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: n-Nonane                                   | 105 %  | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333009 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 30 - 1'

E308084-05

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 106 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.6 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 98.4 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 106 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.6 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 98.4 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333004 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: n-Nonane                                   | 116 %  | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333009 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 31 - 1'

E308084-06

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 106 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.8 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 98.5 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 106 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.8 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 98.5 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333004 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: n-Nonane                                   | 106 %  | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333009 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 32 - 1'

E308084-07

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.4 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.5 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.4 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.5 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/14/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: n-Nonane                                   |        | 106 %           | 50-200   | 08/14/23    | 08/14/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | 76.2   | 20.0            | 1        | 08/14/23    | 08/14/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 33 - 1'

E308084-08

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.8 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 99.3 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.8 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 99.3 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/14/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: n-Nonane                                   |        | 106 %           | 50-200   | 08/14/23    | 08/14/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 34 - 1'

E308084-09

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 106 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.4 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.4 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 106 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 97.4 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.4 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   |        | 105 %           | 50-200   | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 35 - 1'

E308084-10

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 106 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 99.7 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.9 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 106 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 99.7 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 98.9 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   |        | 106 %           | 50-200   | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 36 - 1'

E308084-11

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 105 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.3 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 99.1 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 105 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.3 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 99.1 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333004 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/15/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/15/23       |       |
| Surrogate: n-Nonane                                   | 104 %  | 50-200          |             | 08/14/23 | 08/15/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333009 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 37 - 1'

## E308084-12

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.8 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 97.4 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 107 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.8 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 97.4 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   |        | 106 %           | 50-200   | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 38 - 1'

E308084-13

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 101 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 95.2 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 102 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 101 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 95.2 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 102 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   |        | 103 %           | 50-200   | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 39 - 1'

E308084-14

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 94.9 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 103 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 94.9 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 103 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   |        | 105 %           | 50-200   | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 40 - 1'

## E308084-15

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 97.9 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.0 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 100 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333002 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| Surrogate: Bromofluorobenzene                         | 97.9 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 96.0 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| Surrogate: Toluene-d8                                 | 100 %  | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333004 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/15/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/15/23       |       |
| Surrogate: n-Nonane                                   | 107 %  | 50-200          |             | 08/14/23 | 08/15/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333009 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 41 - 1'

E308084-16

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 94.5 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 103 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 94.5 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 103 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   |        | 107 %           | 50-200   | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 42 - 1'

E308084-17

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.2 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 102 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         |        | 100 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      |        | 96.2 %          | 70-130   | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 |        | 102 %           | 70-130   | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   |        | 104 %           | 50-200   | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/15/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 43 - 1'

E308084-18

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         | 97.1 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.4 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         | 97.1 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 94.4 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   | 106 %  | 50-200          |          | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/15/23 |                |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 44 - 1'

E308084-19

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.3 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 93.6 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.3 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 93.6 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   | 105 %  | 50-200          |          | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/15/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 2:59:12PM

## SP Comp 45 - 1'

E308084-20

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organic Compounds by EPA 8260B</b>        |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Benzene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/14/23    | 08/14/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.5 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.0 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: IY |          | Batch: 2333002 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/14/23    | 08/14/23 |                |
| Surrogate: Bromofluorobenzene                         | 99.5 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: 1,2-Dichloroethane-d4                      | 99.0 % | 70-130          |          | 08/14/23    | 08/14/23 |                |
| Surrogate: Toluene-d8                                 | 101 %  | 70-130          |          | 08/14/23    | 08/14/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: KM |          | Batch: 2333004 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/14/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/14/23    | 08/15/23 |                |
| Surrogate: n-Nonane                                   | 107 %  | 50-200          |          | 08/14/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |          |             |          |                |
|   | mg/kg  | mg/kg           |          | Analyst: BA |          | Batch: 2333009 |
| Chloride  | ND     | 20.0            | 1        | 08/14/23    | 08/15/23 |                |



## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/15/2023 2:59:12PM |

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

## Blank (2333002-BLK1)

Prepared: 08/14/23 Analyzed: 08/14/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| 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    | 0.498 |        | 0.500 |  | 99.6 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.480 |        | 0.500 |  | 95.9 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.503 |        | 0.500 |  | 101  | 70-130 |  |  |  |

## LCS (2333002-BS1)

Prepared: 08/14/23 Analyzed: 08/14/23

|                                  |       |        |       |  |      |        |  |  |  |
|----------------------------------|-------|--------|-------|--|------|--------|--|--|--|
| Benzene                          | 2.60  | 0.0250 | 2.50  |  | 104  | 70-130 |  |  |  |
| Ethylbenzene                     | 2.41  | 0.0250 | 2.50  |  | 96.5 | 70-130 |  |  |  |
| Toluene                          | 2.49  | 0.0250 | 2.50  |  | 99.7 | 70-130 |  |  |  |
| o-Xylene                         | 2.58  | 0.0250 | 2.50  |  | 103  | 70-130 |  |  |  |
| p,m-Xylene                       | 5.10  | 0.0500 | 5.00  |  | 102  | 70-130 |  |  |  |
| Total Xylenes                    | 7.69  | 0.0250 | 7.50  |  | 102  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.508 |        | 0.500 |  | 102  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.483 |        | 0.500 |  | 96.6 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.510 |        | 0.500 |  | 102  | 70-130 |  |  |  |

## Matrix Spike (2333002-MS1)

Source: E308084-03

Prepared: 08/14/23 Analyzed: 08/14/23

|                                  |       |        |       |    |      |        |  |  |  |
|----------------------------------|-------|--------|-------|----|------|--------|--|--|--|
| Benzene                          | 2.66  | 0.0250 | 2.50  | ND | 106  | 48-131 |  |  |  |
| Ethylbenzene                     | 2.45  | 0.0250 | 2.50  | ND | 98.1 | 45-135 |  |  |  |
| Toluene                          | 2.54  | 0.0250 | 2.50  | ND | 101  | 48-130 |  |  |  |
| o-Xylene                         | 2.61  | 0.0250 | 2.50  | ND | 105  | 43-135 |  |  |  |
| p,m-Xylene                       | 5.12  | 0.0500 | 5.00  | ND | 102  | 43-135 |  |  |  |
| Total Xylenes                    | 7.74  | 0.0250 | 7.50  | ND | 103  | 43-135 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.509 |        | 0.500 |    | 102  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.475 |        | 0.500 |    | 95.0 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.515 |        | 0.500 |    | 103  | 70-130 |  |  |  |

## Matrix Spike Dup (2333002-MSD1)

Source: E308084-03

Prepared: 08/14/23 Analyzed: 08/14/23

|                                  |       |        |       |    |      |        |        |    |  |
|----------------------------------|-------|--------|-------|----|------|--------|--------|----|--|
| Benzene                          | 2.66  | 0.0250 | 2.50  | ND | 107  | 48-131 | 0.357  | 23 |  |
| Ethylbenzene                     | 2.44  | 0.0250 | 2.50  | ND | 97.6 | 45-135 | 0.552  | 27 |  |
| Toluene                          | 2.54  | 0.0250 | 2.50  | ND | 101  | 48-130 | 0.0197 | 24 |  |
| o-Xylene                         | 2.59  | 0.0250 | 2.50  | ND | 104  | 43-135 | 0.864  | 27 |  |
| p,m-Xylene                       | 5.13  | 0.0500 | 5.00  | ND | 103  | 43-135 | 0.117  | 27 |  |
| Total Xylenes                    | 7.72  | 0.0250 | 7.50  | ND | 103  | 43-135 | 0.213  | 27 |  |
| Surrogate: Bromofluorobenzene    | 0.514 |        | 0.500 |    | 103  | 70-130 |        |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.481 |        | 0.500 |    | 96.2 | 70-130 |        |    |  |
| Surrogate: Toluene-d8            | 0.511 |        | 0.500 |    | 102  | 70-130 |        |    |  |



## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | <b>Reported:</b>    |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/15/2023 2:59:12PM |

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

## Blank (2333002-BLK1)

Prepared: 08/14/23 Analyzed: 08/14/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | ND    | 20.0 |       |  |      |        |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.498 |      | 0.500 |  | 99.6 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.480 |      | 0.500 |  | 95.9 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.503 |      | 0.500 |  | 101  | 70-130 |  |  |  |

## LCS (2333002-BS2)

Prepared: 08/14/23 Analyzed: 08/14/23

|                                  |       |      |       |  |      |        |  |  |  |
|----------------------------------|-------|------|-------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 56.2  | 20.0 | 50.0  |  | 112  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.511 |      | 0.500 |  | 102  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.485 |      | 0.500 |  | 97.0 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.519 |      | 0.500 |  | 104  | 70-130 |  |  |  |

## Matrix Spike (2333002-MS2)

Source: E308084-03

Prepared: 08/14/23 Analyzed: 08/14/23

|                                  |       |      |       |    |      |        |  |  |  |
|----------------------------------|-------|------|-------|----|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10) | 57.7  | 20.0 | 50.0  | ND | 115  | 70-130 |  |  |  |
| Surrogate: Bromofluorobenzene    | 0.501 |      | 0.500 |    | 100  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.478 |      | 0.500 |    | 95.6 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 0.516 |      | 0.500 |    | 103  | 70-130 |  |  |  |

## Matrix Spike Dup (2333002-MSD2)

Source: E308084-03

Prepared: 08/14/23 Analyzed: 08/14/23

|                                  |       |      |       |    |      |        |      |    |  |
|----------------------------------|-------|------|-------|----|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10) | 56.9  | 20.0 | 50.0  | ND | 114  | 70-130 | 1.32 | 20 |  |
| Surrogate: Bromofluorobenzene    | 0.499 |      | 0.500 |    | 99.7 | 70-130 |      |    |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.459 |      | 0.500 |    | 91.8 | 70-130 |      |    |  |
| Surrogate: Toluene-d8            | 0.520 |      | 0.500 |    | 104  | 70-130 |      |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/15/2023 2:59:12PM |

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| Blank (2333004-BLK1)            |      |      |      |  | Prepared: 08/14/23 Analyzed: 08/14/23 |        |  |  |  |
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |                                       |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |                                       |        |  |  |  |
| Surrogate: n-Nonane             | 52.1 |      | 50.0 |  | 104                                   | 50-200 |  |  |  |

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| LCS (2333004-BS1)               |      |      |      |  | Prepared: 08/14/23 Analyzed: 08/14/23 |        |  |  |  |
| Diesel Range Organics (C10-C28) | 247  | 25.0 | 250  |  | 99.0                                  | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 50.9 |      | 50.0 |  | 102                                   | 50-200 |  |  |  |

|                                 |      |      |      |    |                    |        |                                       |  |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|--|--|
| Matrix Spike (2333004-MS1)      |      |      |      |    | Source: E308084-01 |        | Prepared: 08/14/23 Analyzed: 08/14/23 |  |  |
| Diesel Range Organics (C10-C28) | 242  | 25.0 | 250  | ND | 96.6               | 38-132 |                                       |  |  |
| Surrogate: n-Nonane             | 49.4 |      | 50.0 |    | 98.9               | 50-200 |                                       |  |  |

|                                 |      |      |      |    |                    |        |                                       |    |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|----|--|
| Matrix Spike Dup (2333004-MSD1) |      |      |      |    | Source: E308084-01 |        | Prepared: 08/14/23 Analyzed: 08/14/23 |    |  |
| Diesel Range Organics (C10-C28) | 246  | 25.0 | 250  | ND | 98.3               | 38-132 | 1.75                                  | 20 |  |
| Surrogate: n-Nonane             | 48.7 |      | 50.0 |    | 97.4               | 50-200 |                                       |    |  |





QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/15/2023 2:59:12PM |

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 (2333009-BLK1)            |     |      |     |    | Prepared: 08/14/23 Analyzed: 08/14/23 |        |                                       |    |  |
| Chloride                        | ND  | 20.0 |     |    |                                       |        |                                       |    |  |
| LCS (2333009-BS1)               |     |      |     |    | Prepared: 08/14/23 Analyzed: 08/14/23 |        |                                       |    |  |
| Chloride                        | 249 | 20.0 | 250 |    | 99.5                                  | 90-110 |                                       |    |  |
| Matrix Spike (2333009-MS1)      |     |      |     |    | Source: E308084-01                    |        | Prepared: 08/14/23 Analyzed: 08/14/23 |    |  |
| Chloride                        | 250 | 20.0 | 250 | ND | 99.8                                  | 80-120 |                                       |    |  |
| Matrix Spike Dup (2333009-MSD1) |     |      |     |    | Source: E308084-01                    |        | Prepared: 08/14/23 Analyzed: 08/14/23 |    |  |
| Chloride                        | 249 | 20.0 | 250 | ND | 99.4                                  | 80-120 | 0.441                                 | 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:    | Partition       |                |
| 7 W. Compress Road | Project Number:  | 20046-0001      | Reported:      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 08/15/23 14:59 |

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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

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



### Chain of Custody

|   |  |              |  |  |  |                  |  |                              |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
|---|--|--------------|--|--|--|------------------|--|------------------------------|--|------------|--|-----------------|--|-----------------|--|--------------|--|-------------|--|-------------|--|----------------|--|----------|--|----------|--|---------|--|--|--|------|--|--|--|
| Client: <b>Mack Energy</b>              |  |              |  | Bill To:                                       |  |                  |  | Lab Use Only                 |  |            |  | TAT             |  |                 |  | EPA Program  |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
| Project: <b>Partition</b>               |  |              |  | Attention: <b>ESS</b>                          |  |                  |  | Lab WO# <b>E 308084</b>      |  |            |  | 1D              |  |                 |  | 2D           |  |             |  | 3D          |  |                |  | Standard |  |          |  | CWA     |  |  |  | SDWA |  |  |  |
| Project Manager: <b>Natalie Gladden</b> |  |              |  | Address: <b>2724 NW COUNTY ROAD</b>            |  |                  |  | Job Number <b>20046-0001</b> |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
| Address:                                |  |              |  | City, State, Zip <b>HOBBS, NM 88240</b>        |  |                  |  | Analysis and Method          |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  | RCRA     |  |          |  |         |  |  |  |      |  |  |  |
| City, State, Zip                        |  |              |  | Phone: <b>575-393-9048</b>                     |  |                  |  |                              |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
| Phone:                                  |  |              |  | EMAIL TO: <b>Natalie@energystaffingllc.com</b> |  |                  |  |                              |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
| Email:                                  |  |              |  | Dakoatah@energystaffingllc.com                 |  |                  |  |                              |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
| Report due by:                          |  |              |  |  |  |                  |  |                              |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
| Time Sampled                            |  | Date Sampled |  | Matrix   |  | No of Containers |  | Sample ID                    |  | Lab Number |  | DRO/ORO by 8015 |  | GRO/ORO by 8015 |  | RTEX by 8021 |  | VOC by 8260 |  | Metals 6010 |  | Chloride 100.0 |  | RGDOC NM |  | RGDOC TX |  | Remarks |  |  |  |      |  |  |  |
| 08/10/23                                |  | S            |  | 1  |  | SP Comp 26 - 1'  |  | 1                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  | X        |  |          |  |         |  |  |  |      |  |  |  |
|   |  |              |  |  |  | SP Comp 27 - 1'  |  | 2                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
|   |  |              |  |  |  | SP Comp 28 - 1'  |  | 3                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
|   |  |              |  |  |  | SP Comp 29 - 1'  |  | 4                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
|   |  |              |  |  |  | SP Comp 30 - 1'  |  | 5                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
|   |  |              |  |  |  | SP Comp 31 - 1'  |  | 6                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
|   |  |              |  |  |  | SP Comp 32 - 1'  |  | 7                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
|   |  |              |  |  |  | SP Comp 33 - 1'  |  | 8                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
|   |  |              |  |  |  | SP Comp 34 - 1'  |  | 9                            |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  |          |  |          |  |         |  |  |  |      |  |  |  |
| 08/10/23                                |  | S            |  | 1  |  | SP Comp 35 - 1'  |  | 10                           |  |            |  |                 |  |                 |  |              |  |             |  |             |  |                |  | X        |  |          |  |         |  |  |  |      |  |  |  |

**Additional Instructions:**

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

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

| Relinquished by: (Signature) |  | Date     | Time | Received by: (Signature) |  | Date    | Time | Cash Use Only   |  |
|------------------------------|--|----------|------|--------------------------|--|---------|------|-----------------|--|
| Don Solis                    |  | 08/10/23 |      | Michelle Gonzales        |  | 8-11-23 | 1230 | 0/1             |  |
| Michelle Gonzales            |  | 8-12-23  | 2145 | Jrene 3432               |  | 8/14/23 | 7:00 | T1 T2 T3        |  |
| Relinquished by: (Signature) |  | Date     | Time | Received by: (Signature) |  | Date    | Time | Avg Temp °C 4.0 |  |

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

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

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, G - Gas  
 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 fee is based on the amount paid for on the report.

Page 31 of 33



## Project Information

## Chain of Custody

|                                    |              |        |                   |  |     |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|------------------------------------|--------------|--------|-------------------|--|-----|-----------------|-----------------|---------------------------|-------------|-------------|----------------|-------------------------------|----------|---------|--|-------------|----|----|----------|-----|------|
| Client: <u>MGM Energy</u>          |              |        |                   | Bill To  |     |                 |                 | Lab Use Only              |             |             |                | TAT                           |          |         |  | EPA Program |    |    |          |     |      |
| Project: <u>Permitron</u>          |              |        |                   | Attention: <u>ESS</u>                          |     |                 |                 | Lab Work: <u>E 308084</u> |             |             |                | Job Number: <u>20046-0001</u> |          |         |  | 1D          | 2D | 3D | Standard | CWA | SDWA |
| Project Manager: <u>N. Gladden</u> |              |        |                   | Address: <u>2724 NW COUNTY ROAD</u>            |     |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
| Address:                           |              |        |                   | City, State, Zip: <u>HOBBS, NM 88240</u>       |     |                 |                 | Analysis and Method       |             |             |                |                               |          |         |  |             |    |    |          |     |      |
| City, State, Zip:                  |              |        |                   | Phone: <u>575-393-9048</u>                     |     |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
| Phone:                             |              |        |                   | EMAIL TO: <u>Natalie@energystaffingllc.com</u> |     |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
| Email:                             |              |        |                   | <u>Dakoatah@energystaffingllc.com</u>          |     |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
| Report due by:                     |              |        |                   |  |     |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
| Time Sampled                       | Date Sampled | Matrix | No. of Containers | Sample ID                                      | Lab | DRO/DRO by 8015 | GRO/DRO by 8015 | ATX by 8021               | VOC by 8260 | Metals 6010 | Chloride 30010 | BGDOC NM                      | BGDOC TX | Remarks |  |             |    |    |          |     |      |
|                                    | 08/10/23     | S      | 1                 | SP Comp 36 - 1'                                | 11  |                 |                 |                           |             |             |                | X                             |          |         |  |             |    |    |          |     |      |
|                                    |              |        |                   | SP Comp 37 - 1'                                | 12  |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|                                    |              |        |                   | SP Comp 38 - 1'                                | 13  |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|                                    |              |        |                   | SP Comp 39 - 1'                                | 14  |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|                                    |              |        |                   | SP Comp 40 - 1'                                | 15  |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|                                    |              |        |                   | SP Comp 41 - 1'                                | 16  |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|                                    |              |        |                   | SP Comp 42 - 1'                                | 17  |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|                                    |              |        |                   | SP Comp 43 - 1'                                | 18  |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|                                    |              |        |                   | SP Comp 44 - 1'                                | 19  |                 |                 |                           |             |             |                |                               |          |         |  |             |    |    |          |     |      |
|                                    | 08/10/23     | S      | 1                 | SP Comp 45 - 1'                                | 20  |                 |                 |                           |             |             |                | X                             |          |         |  |             |    |    |          |     |      |

## Additional Instructions:

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

Sampled by: Juan Solis

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

|  |                         |                     |  |                        |                     |
|--|-------------------------|---------------------|--|------------------------|---------------------|
| Relinquished by: (Signature)<br><u>Juan Solis</u>        | Date<br><u>08/10/23</u> | Time<br><u></u>     | Received by: (Signature)<br><u>Michelle Campbell</u> | Date<br><u>8-11-23</u> | Time<br><u>1230</u> |
| Relinquished by: (Signature)<br><u>Michelle Campbell</u> | Date<br><u>8-12-23</u>  | Time<br><u>2145</u> | Received by: (Signature)<br><u>Jane 3183</u>         | Date<br><u>8-14-23</u> | Time<br><u>7:00</u> |
| Relinquished by: (Signature)                             | Date                    | Time                | Received by: (Signature)                             | Date                   | Time                |

|                         |    |    |
|-------------------------|----|----|
| Receivers, with sig:    |    |    |
| T1                      | T2 | T3 |
| Avg Temp °C: <u>4.0</u> |    |    |

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

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

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

## Envirotech Analytical Laboratory

Printed: 8/14/2023 11:09:05AM

## 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:  | 08/14/23 07:00             | Work Order ID: | E308084      |
| Phone:  | (575) 390-6397                | Date Logged In: | 08/11/23 16:27             | Logged In By:  | Caitlin Mars |
| Email:  | Natalie@energystaffingllc.com | Due Date:       | 08/15/23 17:00 (1 day TAT) |                |              |

Chain of Custody (COC)

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

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

Carrier: CourierComments/Resolution

Project Partition has been separated into 2 reports due to high sample volume. Workorders are as follows: E308084 & E308085. Time sampled not provided on COC per client.

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.



Report to:  
Natalie Gladden



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Mack Energy

Project Name: Partition  
Work Order: E308085  
Job Number: 20046-0001  
Received: 8/14/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/15/23

5796 U.S. Hwy 64  
Farmington, NM 87401

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



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/15/23

Natalie Gladden  
7 W. Compress Road  
Artesia, NM 88210



Project Name: Partition  
Workorder: E308085  
Date Received: 8/14/2023 7:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/14/2023 7:00:00AM, under the Project Name: Partition.

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

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

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

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

Respectfully,

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Chain of Custody etc.

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## Sample Summary

|                    |                  |                 |                                    |
|--------------------|------------------|-----------------|------------------------------------|
| Mack Energy        | Project Name:    | Partition       | <b>Reported:</b><br>08/15/23 15:03 |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                                    |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden |                                    |

| Client Sample ID | Lab Sample ID | Matrix | Sampled  | Received | Container        |
|------------------|---------------|--------|----------|----------|------------------|
| SP Comp 46 - 1'  | E308085-01A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 47 - 1'  | E308085-02A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 48 - 1'  | E308085-03A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 49 - 1'  | E308085-04A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 50 - 1'  | E308085-05A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 51 - 1'  | E308085-06A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 52 - 1'  | E308085-07A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 53 - 1'  | E308085-08A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 54 - 1'  | E308085-09A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 55 - 1'  | E308085-10A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 56 - 1'  | E308085-11A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 57 - 1'  | E308085-12A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 58 - 1'  | E308085-13A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |
| SP Comp 59 - 1'  | E308085-14A   | Soil   | 08/10/23 | 08/14/23 | Glass Jar, 2 oz. |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 46 - 1'

E308085-01

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.4 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 90.3 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 91.1 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 47 - 1'

## E308085-02

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.6 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 89.7 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 95.2 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 48 - 1'

E308085-03

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.5 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 91.3 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 91.9 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 49 - 1'

## E308085-04

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.3 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 91.8 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 94.0 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 50 - 1'

E308085-05

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.4 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 92.3 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 94.4 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 51 - 1'

E308085-06

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.8 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 90.9 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 93.5 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 52 - 1'

E308085-07

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.2 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 92.4 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 95.0 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 53 - 1'

E308085-08

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.7 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 92.4 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 95.3 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 54 - 1'

## E308085-09

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.0 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 91.6 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 94.5 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 55 - 1'

## E308085-10

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.1 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 91.2 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 90.8 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 56 - 1'

## E308085-11

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.5 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 91.0 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 91.6 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 57 - 1'

## E308085-12

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.7 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 89.5 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 92.9 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 58 - 1'

## E308085-13

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 93.2 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 92.3 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 92.5 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/15/2023 3:03:20PM

## SP Comp 59 - 1'

## E308085-14

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/14/23 | 08/14/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.0 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333001 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 90.2 % | 70-130          |             | 08/14/23 | 08/14/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333003 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/14/23 | 08/14/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/14/23 | 08/14/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 92.5 % | 50-200          |             | 08/14/23 | 08/14/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333008 |       |
| Chloride  | ND     | 20.0            | 1           | 08/14/23 | 08/15/23       |       |



## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | <b>Reported:</b>    |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/15/2023 3:03:20PM |

## Volatile Organics by EPA 8021B

Analyst: IY

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

## Blank (2333001-BLK1)

Prepared: 08/14/23 Analyzed: 08/14/23

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| Ethylbenzene                        | ND   | 0.0250 |      |  |      |        |  |  |  |
| Toluene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| o-Xylene                            | ND   | 0.0250 |      |  |      |        |  |  |  |
| p,m-Xylene                          | ND   | 0.0500 |      |  |      |        |  |  |  |
| Total Xylenes                       | ND   | 0.0250 |      |  |      |        |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.61 |        | 8.00 |  | 95.1 | 70-130 |  |  |  |

## LCS (2333001-BS1)

Prepared: 08/14/23 Analyzed: 08/14/23

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | 4.98 | 0.0250 | 5.00 |  | 99.5 | 70-130 |  |  |  |
| Ethylbenzene                        | 4.95 | 0.0250 | 5.00 |  | 98.9 | 70-130 |  |  |  |
| Toluene                             | 4.99 | 0.0250 | 5.00 |  | 99.7 | 70-130 |  |  |  |
| o-Xylene                            | 4.98 | 0.0250 | 5.00 |  | 99.6 | 70-130 |  |  |  |
| p,m-Xylene                          | 10.1 | 0.0500 | 10.0 |  | 101  | 70-130 |  |  |  |
| Total Xylenes                       | 15.1 | 0.0250 | 15.0 |  | 100  | 70-130 |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.64 |        | 8.00 |  | 95.5 | 70-130 |  |  |  |

## Matrix Spike (2333001-MS1)

Source: E308083-02

Prepared: 08/14/23 Analyzed: 08/14/23

|                                     |      |        |      |    |      |        |  |  |  |
|-------------------------------------|------|--------|------|----|------|--------|--|--|--|
| Benzene                             | 5.18 | 0.0250 | 5.00 | ND | 104  | 54-133 |  |  |  |
| Ethylbenzene                        | 5.14 | 0.0250 | 5.00 | ND | 103  | 61-133 |  |  |  |
| Toluene                             | 5.20 | 0.0250 | 5.00 | ND | 104  | 61-130 |  |  |  |
| o-Xylene                            | 5.15 | 0.0250 | 5.00 | ND | 103  | 63-131 |  |  |  |
| p,m-Xylene                          | 10.5 | 0.0500 | 10.0 | ND | 105  | 63-131 |  |  |  |
| Total Xylenes                       | 15.6 | 0.0250 | 15.0 | ND | 104  | 63-131 |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.62 |        | 8.00 |    | 95.2 | 70-130 |  |  |  |

## Matrix Spike Dup (2333001-MSD1)

Source: E308083-02

Prepared: 08/14/23 Analyzed: 08/14/23

|                                     |      |        |      |    |      |        |      |    |  |
|-------------------------------------|------|--------|------|----|------|--------|------|----|--|
| Benzene                             | 4.80 | 0.0250 | 5.00 | ND | 96.0 | 54-133 | 7.53 | 20 |  |
| Ethylbenzene                        | 4.79 | 0.0250 | 5.00 | ND | 95.7 | 61-133 | 7.11 | 20 |  |
| Toluene                             | 4.82 | 0.0250 | 5.00 | ND | 96.5 | 61-130 | 7.49 | 20 |  |
| o-Xylene                            | 4.78 | 0.0250 | 5.00 | ND | 95.7 | 63-131 | 7.36 | 20 |  |
| p,m-Xylene                          | 9.76 | 0.0500 | 10.0 | ND | 97.6 | 63-131 | 7.00 | 20 |  |
| Total Xylenes                       | 14.5 | 0.0250 | 15.0 | ND | 97.0 | 63-131 | 7.12 | 20 |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.62 |        | 8.00 |    | 95.3 | 70-130 |      |    |  |





QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/15/2023 3:03:20PM |

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

Blank (2333001-BLK1) Prepared: 08/14/23 Analyzed: 08/14/23

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | ND   | 20.0 |      |  |      |        |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.25 |      | 8.00 |  | 90.7 | 70-130 |  |  |  |

LCS (2333001-BS2) Prepared: 08/14/23 Analyzed: 08/14/23

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | 52.6 | 20.0 | 50.0 |  | 105  | 70-130 |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.36 |      | 8.00 |  | 92.1 | 70-130 |  |  |  |

Matrix Spike (2333001-MS2) Source: E308083-02 Prepared: 08/14/23 Analyzed: 08/14/23

|   |      |      |      |    |      |        |  |  |  |
|---|------|------|------|----|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | 51.5 | 20.0 | 50.0 | ND | 103  | 70-130 |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.12 |      | 8.00 |    | 89.0 | 70-130 |  |  |  |

Matrix Spike Dup (2333001-MSD2) Source: E308083-02 Prepared: 08/14/23 Analyzed: 08/14/23

|   |      |      |      |    |      |        |      |    |  |
|---|------|------|------|----|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10)        | 51.0 | 20.0 | 50.0 | ND | 102  | 70-130 | 1.06 | 20 |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.17 |      | 8.00 |    | 89.6 | 70-130 |      |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/15/2023 3:03:20PM |

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2333003-BLK1) Prepared: 08/14/23 Analyzed: 08/14/23

|                                 |      |      |      |  |     |        |  |  |  |
|---------------------------------|------|------|------|--|-----|--------|--|--|--|
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |     |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |     |        |  |  |  |
| Surrogate: n-Nonane             | 52.2 |      | 50.0 |  | 104 | 50-200 |  |  |  |

LCS (2333003-BS1) Prepared: 08/14/23 Analyzed: 08/14/23

|                                 |      |      |      |  |      |        |  |  |  |
|---------------------------------|------|------|------|--|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | 222  | 25.0 | 250  |  | 88.8 | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 46.1 |      | 50.0 |  | 92.2 | 50-200 |  |  |  |

Matrix Spike (2333003-MS1) Source: E308085-08 Prepared: 08/14/23 Analyzed: 08/14/23

|                                 |      |      |      |    |      |        |  |  |  |
|---------------------------------|------|------|------|----|------|--------|--|--|--|
| Diesel Range Organics (C10-C28) | 227  | 25.0 | 250  | ND | 91.0 | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 46.4 |      | 50.0 |    | 92.8 | 50-200 |  |  |  |

Matrix Spike Dup (2333003-MSD1) Source: E308085-08 Prepared: 08/14/23 Analyzed: 08/14/23

|                                 |      |      |      |    |      |        |      |    |  |
|---------------------------------|------|------|------|----|------|--------|------|----|--|
| Diesel Range Organics (C10-C28) | 232  | 25.0 | 250  | ND | 92.8 | 38-132 | 1.98 | 20 |  |
| Surrogate: n-Nonane             | 47.1 |      | 50.0 |    | 94.2 | 50-200 |      |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/15/2023 3:03:20PM |

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 (2333008-BLK1)            |     |      |     |     | Prepared: 08/14/23 Analyzed: 08/14/23 |        |                                       |    |  |
| Chloride                        | ND  | 20.0 |     |     |                                       |        |                                       |    |  |
| LCS (2333008-BS1)               |     |      |     |     | Prepared: 08/14/23 Analyzed: 08/14/23 |        |                                       |    |  |
| Chloride                        | 248 | 20.0 | 250 |     | 99.1                                  | 90-110 |                                       |    |  |
| Matrix Spike (2333008-MS1)      |     |      |     |     | Source: E308083-01                    |        | Prepared: 08/14/23 Analyzed: 08/14/23 |    |  |
| Chloride                        | 360 | 20.0 | 250 | 110 | 99.8                                  | 80-120 |                                       |    |  |
| Matrix Spike Dup (2333008-MSD1) |     |      |     |     | Source: E308083-01                    |        | Prepared: 08/14/23 Analyzed: 08/14/23 |    |  |
| Chloride                        | 361 | 20.0 | 250 | 110 | 100                                   | 80-120 | 0.283                                 | 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:    | Partition       |                |
| 7 W. Compress Road | Project Number:  | 20046-0001      | Reported:      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 08/15/23 15:03 |

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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

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



**Additional Instructions:**

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

Sampled by: John Solis

| Received by: (Signature) | Date            | Time        |
|--------------------------|-----------------|-------------|
| <u>John Solis</u>        | <u>08/10/23</u> |             |
| <u>Mucila Eusebio</u>    | <u>8-11-23</u>  | <u>1230</u> |
| <u>over 3477</u>         | <u>8/14/23</u>  | <u>7:00</u> |

Refrigerated, with ice: ☒ No ☐ Yes

AVC Temp: 40

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

Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is only for those samples received by the laboratory with this CCL. The liability of the laboratory is limited to the amount paid for on the report.

Water Samples are discarded 30 days after results are reported unless other arrangements are made.

Sample Matrix: 5 - soil, sd - solid, sg - sledge, A - aqueous, G - other



Project Information

Chain of Custody

|  |              |        |                   |               |  |                 |                 |              |             |  |                |          |          |         |                               |  |  |  |                                 |  |
|--|--------------|--------|-------------------|---------------|--|-----------------|-----------------|--------------|-------------|--|----------------|----------|----------|---------|-------------------------------|--|--|--|---------------------------------|--|
| Client: <b>Mack Energy</b><br>Project: <b>Pad 1150N</b><br>Project Manager: <b>N. Gladden</b><br>Address:<br>City, State, Zip:<br>Phone:<br>Email:<br>Report due by: |              |        |                   |               | Bill To<br>Attention: <b>ESS</b><br>Address: <b>2724 NW COUNTY ROAD</b><br>City, State, Zip: <b>HOBBS, NM 88240</b><br>Phone: <b>575-393-9048</b><br>EMAIL TO: <b>Natalie@energystaffingllc.com</b><br><b>Dakoatah@energystaffingllc.com</b> |                 |                 |              |             | Lab Use Only<br>Lab WO# <b>E 308085</b><br>Job Number <b>20046-0001</b><br>Analysis and Method |                |          |          |         | TAT<br>1D 2D 3D Standard<br>X |  |  |  | EPA Program<br>CWA SDWA<br>RCRA |  |
|  |              |        |                   |               |  |                 |                 |              |             | State<br>NM CO UT AZ TX<br>X   |                |          |          | Remarks |                               |  |  |  |                                 |  |
| Time Sampled   | Date Sampled | Matrix | No. of Containers | Sample ID     | Lab Sample ID  | DRO/DRO by 8015 | GRO/DRO by 8015 | RTEX by 8021 | VOC by 8260 | Metals 6010  | Chloride 300.0 | RGDOC NM | RGDOC TX |         |                               |  |  |  |                                 |  |
|  | 08/10/23     | S      | 1                 | SP Comp 56-1' | 11   |                 |                 |              |             |  |                | X        |          |         |                               |  |  |  |                                 |  |
|  | 1            | S      | 1                 | SP Comp 57-1' | 12   |                 |                 |              |             |  |                |          |          |         |                               |  |  |  |                                 |  |
|  |              | S      | 1                 | SP Comp 58-1' | 13   |                 |                 |              |             |  |                |          |          |         |                               |  |  |  |                                 |  |
|  | 08/10/23     | S      | 1                 | SP Comp 59-1' | 14   |                 |                 |              |             |  |                | X        |          |         |                               |  |  |  |                                 |  |

Additional Instructions:

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

Sampled by: **Juan Solis**

|  |                         |                     |  |                        |                      |
|--|-------------------------|---------------------|--|------------------------|----------------------|
| Relinquished by: (Signature)<br><b>Juan Solis</b>      | Date<br><b>08/10/23</b> | Time                | Received by: (Signature)<br><b>Michelle Cuyler</b> | Date<br><b>8-11-23</b> | Time<br><b>12:30</b> |
| Relinquished by: (Signature)<br><b>Michelle Cuyler</b> | Date<br><b>8-12-23</b>  | Time<br><b>2:45</b> | Received by: (Signature)<br><b>Zem Zaz</b>         | Date<br><b>8/14/23</b> | Time<br><b>7:00</b>  |
| Relinquished by: (Signature)                           | Date                    | Time                | Received by: (Signature)                           | Date                   | Time                 |

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

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

Notes: 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 is limited to the amount paid for on the report.

## Envirotech Analytical Laboratory

Printed: 8/14/2023 11:13:20AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

|         |                               |                 |                            |                |              |
|---------|-------------------------------|-----------------|----------------------------|----------------|--------------|
| Client: | Mack Energy                   | Date Received:  | 08/14/23 07:00             | Work Order ID: | E308085      |
| Phone:  | (575) 390-6397                | Date Logged In: | 08/11/23 16:30             | Logged In By:  | Caitlin Mars |
| Email:  | Natalie@energystaffingllc.com | Due Date:       | 08/15/23 17:00 (1 day TAT) |                |              |

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? No
5. Were all samples received within holding time? Yes

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

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date



envirotech Inc.

Report to:  
Natalie Gladden



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Mack Energy

Project Name: Partition  
Work Order: E308104  
Job Number: 20046-0001  
Received: 8/15/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/16/23

5796 U.S. Hwy 64  
Farmington, NM 87401

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



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.



Date Reported: 8/16/23

Natalie Gladden  
7 W. Compress Road  
Artesia, NM 88210



Project Name: Partition  
Workorder: E308104  
Date Received: 8/15/2023 7:15:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/15/2023 7:15:00AM, under the Project Name: Partition.

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

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

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

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

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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**Alexa Michaels**  
Sample Custody Officer  
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**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

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|--------------------|------------------|-----------------|------------------------------------|
| Mack Energy        | Project Name:    | Partition       | <b>Reported:</b><br>08/16/23 13:51 |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                                    |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden |                                    |

| Client Sample ID | Lab Sample ID | Matrix | Sampled  | Received | Container        |
|------------------|---------------|--------|----------|----------|------------------|
| SW Comp 1 - 1'   | E308104-01A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 2 - 1'   | E308104-02A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 3 - 1'   | E308104-03A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 4 - 1'   | E308104-04A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 5 - 1'   | E308104-05A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 6 - 1'   | E308104-06A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 7 - 1'   | E308104-07A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 8 - 1'   | E308104-08A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 9 - 1'   | E308104-09A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 10 - 1'  | E308104-10A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 11 - 1'  | E308104-11A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 12 - 1'  | E308104-12A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 13 - 1'  | E308104-13A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |
| SW Comp 14 - 1'  | E308104-14A   | Soil   | 08/11/23 | 08/15/23 | Glass Jar, 2 oz. |



## Sample Data

|  |  |  |   |
|--|--|--|---|
| Mack Energy<br>7 W. Compress Road<br>Artesia NM, 88210 | Project Name:<br>Project Number:<br>Project Manager: | Partition<br>20046-0001<br>Natalie Gladden | <b>Reported:</b><br>8/16/2023 1:51:20PM |
|--|--|--|---|

### SW Comp 1 - 1'

**E308104-01**

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Surrogate: 4-Bromochlorobenzene-PID                   | 94.8 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| Surrogate: 1-Chloro-4-fluorobenzene-FID               | 91.5 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/15/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/15/23       |       |
| Surrogate: n-Nonane                                   | 98.6 % | 50-200          |             | 08/15/23 | 08/15/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 2 - 1'

## E308104-02

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2333022 |
| Benzene   | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/15/23    | 08/16/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        | 95.5 %          | 70-130   | 08/15/23    | 08/16/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2333022 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/15/23    | 08/16/23 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        | 91.7 %          | 70-130   | 08/15/23    | 08/16/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        | mg/kg           | mg/kg    | Analyst: KM |          | Batch: 2333032 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/15/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/15/23    | 08/15/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 85.3 %          | 50-200   | 08/15/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        | mg/kg           | mg/kg    | Analyst: BA |          | Batch: 2333026 |
| Chloride  | ND     | 20.0            | 1        | 08/15/23    | 08/15/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 3 - 1'

E308104-03

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.9 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 90.8 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/15/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/15/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 95.7 % | 50-200          |             | 08/15/23 | 08/15/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 4 - 1'

## E308104-04

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.3 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 92.8 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/15/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/15/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 93.9 % | 50-200          |             | 08/15/23 | 08/15/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 5 - 1'

E308104-05

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.8 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 90.6 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/15/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/15/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 94.5 % | 50-200          |             | 08/15/23 | 08/15/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 6 - 1'

E308104-06

| Analyte   | Result | Reporting Limit | Dilution | Prepared    | Analyzed | Notes          |
|---|--------|-----------------|----------|-------------|----------|----------------|
| <b>Volatile Organics by EPA 8021B</b>                 |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2333022 |
| Benzene   | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| Ethylbenzene  | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| Toluene   | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| o-Xylene  | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| p,m-Xylene  | ND     | 0.0500          | 1        | 08/15/23    | 08/16/23 |                |
| Total Xylenes   | ND     | 0.0250          | 1        | 08/15/23    | 08/16/23 |                |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        | 95.2 %          | 70-130   | 08/15/23    | 08/16/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        | mg/kg           | mg/kg    | Analyst: IY |          | Batch: 2333022 |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1        | 08/15/23    | 08/16/23 |                |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        | 91.7 %          | 70-130   | 08/15/23    | 08/16/23 |                |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        | mg/kg           | mg/kg    | Analyst: KM |          | Batch: 2333032 |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1        | 08/15/23    | 08/15/23 |                |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1        | 08/15/23    | 08/15/23 |                |
| <i>Surrogate: n-Nonane</i>                            |        | 96.2 %          | 50-200   | 08/15/23    | 08/15/23 |                |
| <b>Anions by EPA 300.0/9056A</b>                      |        | mg/kg           | mg/kg    | Analyst: BA |          | Batch: 2333026 |
| Chloride  | ND     | 20.0            | 1        | 08/15/23    | 08/15/23 |                |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 7 - 1'

E308104-07

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.1 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 91.7 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/16/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 93.6 % | 50-200          |             | 08/15/23 | 08/16/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 8 - 1'

E308104-08

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.2 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 89.1 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/16/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 95.7 % | 50-200          |             | 08/15/23 | 08/16/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 9 - 1'

E308104-09

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.3 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 90.7 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/16/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 95.5 % | 50-200          |             | 08/15/23 | 08/16/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 10 - 1'

## E308104-10

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 96.1 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 89.3 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/16/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 85.0 % | 50-200          |             | 08/15/23 | 08/16/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 11 - 1'

## E308104-11

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 94.3 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 91.5 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/16/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 85.1 % | 50-200          |             | 08/15/23 | 08/16/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 12 - 1'

## E308104-12

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 93.9 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 91.5 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/16/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 96.7 % | 50-200          |             | 08/15/23 | 08/16/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 13 - 1'

## E308104-13

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.2 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 89.9 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/16/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 94.3 % | 50-200          |             | 08/15/23 | 08/16/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |





## Sample Data

Mack Energy  
7 W. Compress Road  
Artesia NM, 88210

Project Name: Partition  
Project Number: 20046-0001  
Project Manager: Natalie Gladden

**Reported:**  
8/16/2023 1:51:20PM

## SW Comp 14 - 1'

## E308104-14

| Analyte   | Result | Reporting Limit | Dilution    | Prepared | Analyzed       | Notes |
|---|--------|-----------------|-------------|----------|----------------|-------|
| <b>Volatile Organics by EPA 8021B</b>                 |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Benzene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Ethylbenzene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| Toluene   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| o-Xylene  | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| p,m-Xylene  | ND     | 0.0500          | 1           | 08/15/23 | 08/16/23       |       |
| Total Xylenes   | ND     | 0.0250          | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 4-Bromochlorobenzene-PID</i>            |        |                 |             |          |                |       |
|   | 95.9 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - GRO</b>     |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: IY |          | Batch: 2333022 |       |
| Gasoline Range Organics (C6-C10)                      | ND     | 20.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>        |        |                 |             |          |                |       |
|   | 90.7 % | 70-130          |             | 08/15/23 | 08/16/23       |       |
| <b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b> |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: KM |          | Batch: 2333032 |       |
| Diesel Range Organics (C10-C28)                       | ND     | 25.0            | 1           | 08/15/23 | 08/16/23       |       |
| Oil Range Organics (C28-C36)                          | ND     | 50.0            | 1           | 08/15/23 | 08/16/23       |       |
| <i>Surrogate: n-Nonane</i>                            |        |                 |             |          |                |       |
|   | 90.3 % | 50-200          |             | 08/15/23 | 08/16/23       |       |
| <b>Anions by EPA 300.0/9056A</b>                      |        |                 |             |          |                |       |
|   | mg/kg  | mg/kg           | Analyst: BA |          | Batch: 2333026 |       |
| Chloride  | ND     | 20.0            | 1           | 08/15/23 | 08/15/23       |       |



## QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | <b>Reported:</b>    |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/16/2023 1:51:20PM |

## Volatile Organics by EPA 8021B

Analyst: IY

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

## Blank (2333022-BLK1)

Prepared: 08/15/23 Analyzed: 08/15/23

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| Ethylbenzene                        | ND   | 0.0250 |      |  |      |        |  |  |  |
| Toluene                             | ND   | 0.0250 |      |  |      |        |  |  |  |
| o-Xylene                            | ND   | 0.0250 |      |  |      |        |  |  |  |
| p,m-Xylene                          | ND   | 0.0500 |      |  |      |        |  |  |  |
| Total Xylenes                       | ND   | 0.0250 |      |  |      |        |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.51 |        | 8.00 |  | 93.9 | 70-130 |  |  |  |

## LCS (2333022-BS1)

Prepared: 08/15/23 Analyzed: 08/15/23

|                                     |      |        |      |  |      |        |  |  |  |
|-------------------------------------|------|--------|------|--|------|--------|--|--|--|
| Benzene                             | 4.74 | 0.0250 | 5.00 |  | 94.9 | 70-130 |  |  |  |
| Ethylbenzene                        | 4.79 | 0.0250 | 5.00 |  | 95.7 | 70-130 |  |  |  |
| Toluene                             | 4.83 | 0.0250 | 5.00 |  | 96.5 | 70-130 |  |  |  |
| o-Xylene                            | 4.83 | 0.0250 | 5.00 |  | 96.7 | 70-130 |  |  |  |
| p,m-Xylene                          | 9.76 | 0.0500 | 10.0 |  | 97.6 | 70-130 |  |  |  |
| Total Xylenes                       | 14.6 | 0.0250 | 15.0 |  | 97.3 | 70-130 |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.54 |        | 8.00 |  | 94.2 | 70-130 |  |  |  |

## Matrix Spike (2333022-MS1)

Source: E308104-11

Prepared: 08/15/23 Analyzed: 08/16/23

|                                     |      |        |      |    |      |        |  |  |  |
|-------------------------------------|------|--------|------|----|------|--------|--|--|--|
| Benzene                             | 4.59 | 0.0250 | 5.00 | ND | 91.9 | 54-133 |  |  |  |
| Ethylbenzene                        | 4.67 | 0.0250 | 5.00 | ND | 93.5 | 61-133 |  |  |  |
| Toluene                             | 4.69 | 0.0250 | 5.00 | ND | 93.7 | 61-130 |  |  |  |
| o-Xylene                            | 4.73 | 0.0250 | 5.00 | ND | 94.6 | 63-131 |  |  |  |
| p,m-Xylene                          | 9.53 | 0.0500 | 10.0 | ND | 95.3 | 63-131 |  |  |  |
| Total Xylenes                       | 14.3 | 0.0250 | 15.0 | ND | 95.0 | 63-131 |  |  |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.65 |        | 8.00 |    | 95.6 | 70-130 |  |  |  |

## Matrix Spike Dup (2333022-MSD1)

Source: E308104-11

Prepared: 08/15/23 Analyzed: 08/16/23

|                                     |      |        |      |    |      |        |      |    |  |
|-------------------------------------|------|--------|------|----|------|--------|------|----|--|
| Benzene                             | 4.80 | 0.0250 | 5.00 | ND | 96.1 | 54-133 | 4.47 | 20 |  |
| Ethylbenzene                        | 4.87 | 0.0250 | 5.00 | ND | 97.3 | 61-133 | 4.03 | 20 |  |
| Toluene                             | 4.90 | 0.0250 | 5.00 | ND | 98.0 | 61-130 | 4.48 | 20 |  |
| o-Xylene                            | 4.89 | 0.0250 | 5.00 | ND | 97.9 | 63-131 | 3.44 | 20 |  |
| p,m-Xylene                          | 9.91 | 0.0500 | 10.0 | ND | 99.1 | 63-131 | 3.90 | 20 |  |
| Total Xylenes                       | 14.8 | 0.0250 | 15.0 | ND | 98.7 | 63-131 | 3.75 | 20 |  |
| Surrogate: 4-Bromochlorobenzene-PID | 7.55 |        | 8.00 |    | 94.3 | 70-130 |      |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/16/2023 1:51:20PM |

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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

Blank (2333022-BLK1) Prepared: 08/15/23 Analyzed: 08/15/23

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | ND   | 20.0 |      |  |      |        |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.24 |      | 8.00 |  | 90.5 | 70-130 |  |  |  |

LCS (2333022-BS2) Prepared: 08/15/23 Analyzed: 08/15/23

|   |      |      |      |  |      |        |  |  |  |
|---|------|------|------|--|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | 45.4 | 20.0 | 50.0 |  | 90.8 | 70-130 |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.30 |      | 8.00 |  | 91.3 | 70-130 |  |  |  |

Matrix Spike (2333022-MS2) Source: E308104-11 Prepared: 08/15/23 Analyzed: 08/16/23

|   |      |      |      |    |      |        |  |  |  |
|---|------|------|------|----|------|--------|--|--|--|
| Gasoline Range Organics (C6-C10)        | 43.9 | 20.0 | 50.0 | ND | 87.8 | 70-130 |  |  |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.23 |      | 8.00 |    | 90.4 | 70-130 |  |  |  |

Matrix Spike Dup (2333022-MSD2) Source: E308104-11 Prepared: 08/15/23 Analyzed: 08/16/23

|   |      |      |      |    |      |        |      |    |  |
|---|------|------|------|----|------|--------|------|----|--|
| Gasoline Range Organics (C6-C10)        | 46.6 | 20.0 | 50.0 | ND | 93.3 | 70-130 | 6.01 | 20 |  |
| Surrogate: 1-Chloro-4-fluorobenzene-FID | 7.29 |      | 8.00 |    | 91.1 | 70-130 |      |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/16/2023 1:51:20PM |

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| Blank (2333032-BLK1)            |      |      |      |  | Prepared: 08/15/23 Analyzed: 08/15/23 |        |  |  |  |
| Diesel Range Organics (C10-C28) | ND   | 25.0 |      |  |                                       |        |  |  |  |
| Oil Range Organics (C28-C36)    | ND   | 50.0 |      |  |                                       |        |  |  |  |
| Surrogate: n-Nonane             | 49.7 |      | 50.0 |  | 99.4                                  | 50-200 |  |  |  |

|                                 |      |      |      |  |                                       |        |  |  |  |
|---------------------------------|------|------|------|--|---------------------------------------|--------|--|--|--|
| LCS (2333032-BS1)               |      |      |      |  | Prepared: 08/15/23 Analyzed: 08/15/23 |        |  |  |  |
| Diesel Range Organics (C10-C28) | 257  | 25.0 | 250  |  | 103                                   | 38-132 |  |  |  |
| Surrogate: n-Nonane             | 47.7 |      | 50.0 |  | 95.3                                  | 50-200 |  |  |  |

|                                 |      |      |      |    |                    |        |                                       |  |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|--|--|
| Matrix Spike (2333032-MS1)      |      |      |      |    | Source: E308095-02 |        | Prepared: 08/15/23 Analyzed: 08/15/23 |  |  |
| Diesel Range Organics (C10-C28) | 266  | 25.0 | 250  | ND | 107                | 38-132 |                                       |  |  |
| Surrogate: n-Nonane             | 46.1 |      | 50.0 |    | 92.3               | 50-200 |                                       |  |  |

|                                 |      |      |      |    |                    |        |                                       |    |  |
|---------------------------------|------|------|------|----|--------------------|--------|---------------------------------------|----|--|
| Matrix Spike Dup (2333032-MSD1) |      |      |      |    | Source: E308095-02 |        | Prepared: 08/15/23 Analyzed: 08/15/23 |    |  |
| Diesel Range Organics (C10-C28) | 276  | 25.0 | 250  | ND | 110                | 38-132 | 3.50                                  | 20 |  |
| Surrogate: n-Nonane             | 42.9 |      | 50.0 |    | 85.7               | 50-200 |                                       |    |  |



QC Summary Data

|                    |                  |                 |                     |
|--------------------|------------------|-----------------|---------------------|
| Mack Energy        | Project Name:    | Partition       | Reported:           |
| 7 W. Compress Road | Project Number:  | 20046-0001      |                     |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 8/16/2023 1:51:20PM |

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 (2333026-BLK1)            |     |      |     |    | Prepared: 08/15/23 Analyzed: 08/15/23 |        |                                       |    |  |
| Chloride                        | ND  | 20.0 |     |    |                                       |        |                                       |    |  |
| LCS (2333026-BS1)               |     |      |     |    | Prepared: 08/15/23 Analyzed: 08/15/23 |        |                                       |    |  |
| Chloride                        | 252 | 20.0 | 250 |    | 101                                   | 90-110 |                                       |    |  |
| Matrix Spike (2333026-MS1)      |     |      |     |    | Source: E308104-01                    |        | Prepared: 08/15/23 Analyzed: 08/15/23 |    |  |
| Chloride                        | 271 | 20.0 | 250 | ND | 108                                   | 80-120 |                                       |    |  |
| Matrix Spike Dup (2333026-MSD1) |     |      |     |    | Source: E308104-01                    |        | Prepared: 08/15/23 Analyzed: 08/15/23 |    |  |
| Chloride                        | 270 | 20.0 | 250 | ND | 108                                   | 80-120 | 0.387                                 | 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:    | Partition       |                |
| 7 W. Compress Road | Project Number:  | 20046-0001      | Reported:      |
| Artesia NM, 88210  | Project Manager: | Natalie Gladden | 08/16/23 13:51 |

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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

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

## Project Information

## Chain of Custody

Page 1 of 2

|   |              |        |                   |                 |   |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|---|--------------|--------|-------------------|-----------------|---|---------|--|--|--|--|--|--|--|--|---|--|--|--|-------------|-------------------------------|----|----------|-----|------|-------------|--|--|--|--|-------------|--|--|--|--|----------------|--|--|--|--|----------|--|--|--|--|----------|--|--|--|--|-------|--|--|--|--|
| Client: <u>Mach Energy</u>  |              |        |                   |                 | Bill To                                 |         |  |  |  | Lab Use Only                                     |  |  |  |  | TAT   |  |  |  | EPA Program |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Project: <u>Part 1: on</u>  |              |        |                   |                 | Attention: ENERGY STAFFING SERVICES     |         |  |  |  | Lab WO# <u>E 308104</u>                          |  |  |  |  | Job Number <u>20046-0001</u>  |  |  |  | 1D          | 2D                            | 3D | Standard | CWA | SDWA |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Project Manager: <u>N. Gladden</u>  |              |        |                   |                 | Address: 2724 NW COUNTY RD              |         |  |  |  | Analysis and Method                              |  |  |  |  |   |  |  |  | RCRA        |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Address:  |              |        |                   |                 | City, State, Zip <u>HOBBS, NM 88240</u> |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| City, State, Zip  |              |        |                   |                 | Phone: 575-393-9048                     |         |  |  |  | DRO/ORO by 8015                                  |  |  |  |  | GRO/DRO by 8015   |  |  |  |             | BTX by 8021                   |    |          |     |      | VOC by 8260 |  |  |  |  | Metals 6010 |  |  |  |  | Chloride 300.0 |  |  |  |  | BGDOC NM |  |  |  |  | BGDOC TX |  |  |  |  | State |  |  |  |  |
| Phone:  |              |        |                   |                 | Email: NATALIE@ENERGYSTAFFINGLLC.COM    |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Email:  |              |        |                   |                 | BRITTNEY@ENERGYSTAFFINGLLC.COM          |         |  |  |  | NM   |  |  |  |  | CO  |  |  |  |             | UT                            |    |          |     |      | AZ          |  |  |  |  | TX          |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Report due by:  |              |        |                   |                 |   |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Time Sampled  | Date Sampled | Matrix | No. of Containers | Sample ID       | Lab Number                              | Remarks |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   | 08/11/23     | S      | 1                 | SW Comp 1 - 1'  | 1                                       | X       |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW Comp 2 - 1'  | 2                                       |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW Comp 3 - 1'  | 3                                       |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW Comp 4 - 1'  | 4                                       |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW Comp 5 - 1'  | 5                                       |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW Comp 6 - 1'  | 6                                       |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW Comp 7 - 1'  | 7                                       |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW Comp 8 - 1'  | 8                                       |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   |              |        |                   | SW Comp 9 - 1'  | 9                                       |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
|   | 08/11/23     | S      | 1                 | SW Comp 10 - 1' | 10                                      | X       |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Additional Instructions:  |              |        |                   |                 |   |         |  |  |  |  |  |  |  |  |   |  |  |  |             |                               |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.   |              |        |                   |                 |   |         |  |  |  |  |  |  |  |  | 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) <u>Juan Solis</u>  |              |        |                   |                 | Date <u>08/11/23</u> Time <u>12:00</u>  |         |  |  |  | Received by: (Signature) <u>Carmelita Parker</u> |  |  |  |  | Date <u>8-14-23</u> Time <u>12:00</u>   |  |  |  |             | Lab Use Only                  |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Relinquished by: (Signature) <u>Carmelita Parker</u>  |              |        |                   |                 | Date <u>8-14-23</u> Time <u>16:30</u>   |         |  |  |  | Received by: (Signature) <u>Mach</u>             |  |  |  |  | Date <u>8-14-23</u> Time <u>17:30</u>   |  |  |  |             | Received on ice: <u>Y</u> / N |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| Relinquished by: (Signature) <u>Mach</u>  |              |        |                   |                 | Date <u>8-14-23</u> Time <u>23:30</u>   |         |  |  |  | Received by: (Signature) <u>Juan Solis</u>       |  |  |  |  | Date <u>8/15/23</u> Time <u>7:15</u>  |  |  |  |             | T1 _____ T2 _____ T3 _____    |    |          |     |      |             |  |  |  |  |             |  |  |  |  |                |  |  |  |  |          |  |  |  |  |          |  |  |  |  |       |  |  |  |  |
| 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: 8/15/2023 9:18:58AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

|         |                               |                 |                            |                |              |
|---------|-------------------------------|-----------------|----------------------------|----------------|--------------|
| Client: | Mack Energy                   | Date Received:  | 08/15/23 07:15             | Work Order ID: | E308104      |
| Phone:  | (575) 390-6397                | Date Logged In: | 08/14/23 15:59             | Logged In By:  | Caitlin Mars |
| Email:  | Natalie@energystaffingllc.com | Due Date:       | 08/16/23 17:00 (1 day TAT) |                |              |

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? No
5. Were all samples received within holding time? Yes

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

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

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

Multiphase Sample Matrix

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

Subcontract Laboratory

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

Client Instruction

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

Date

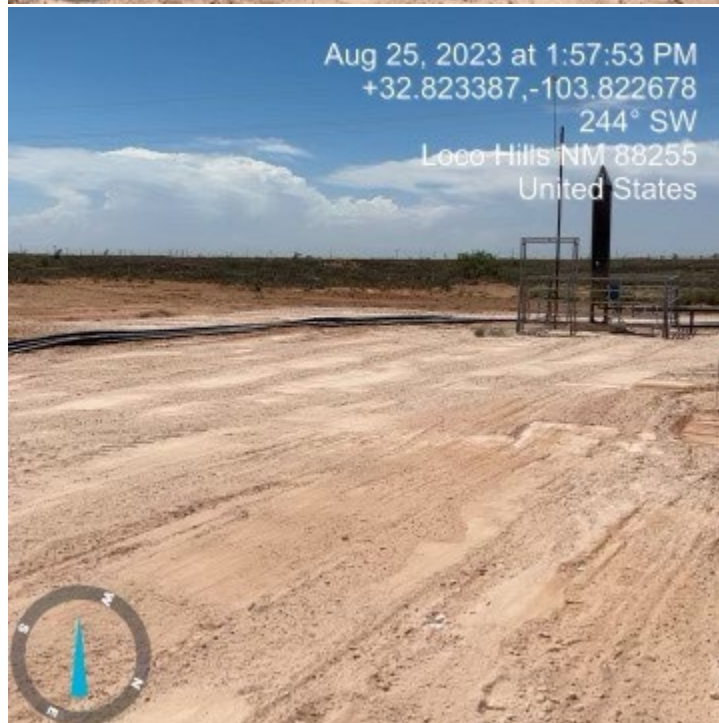


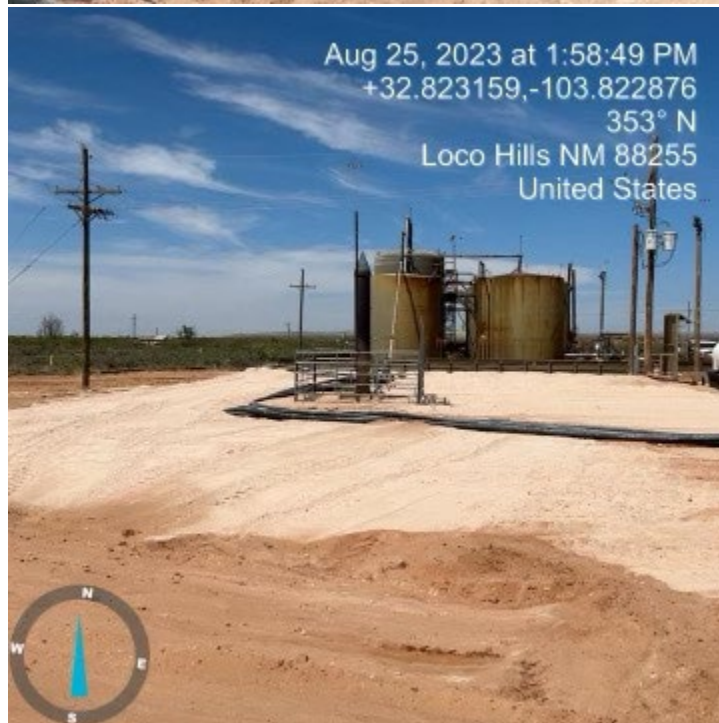
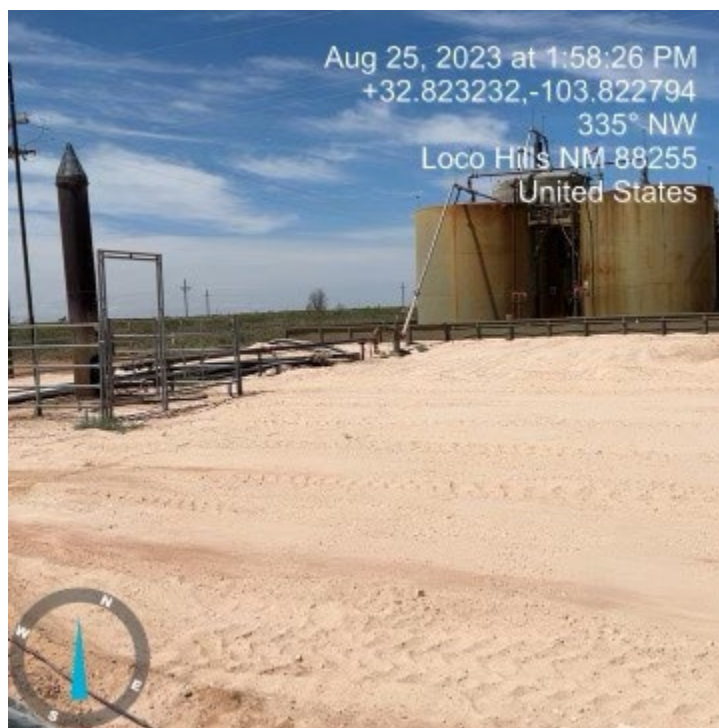
envirotech Inc.

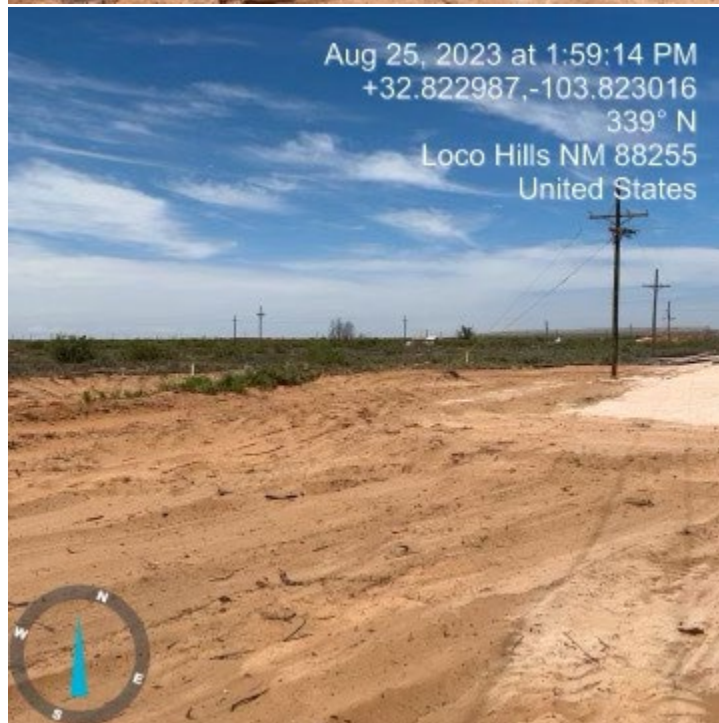
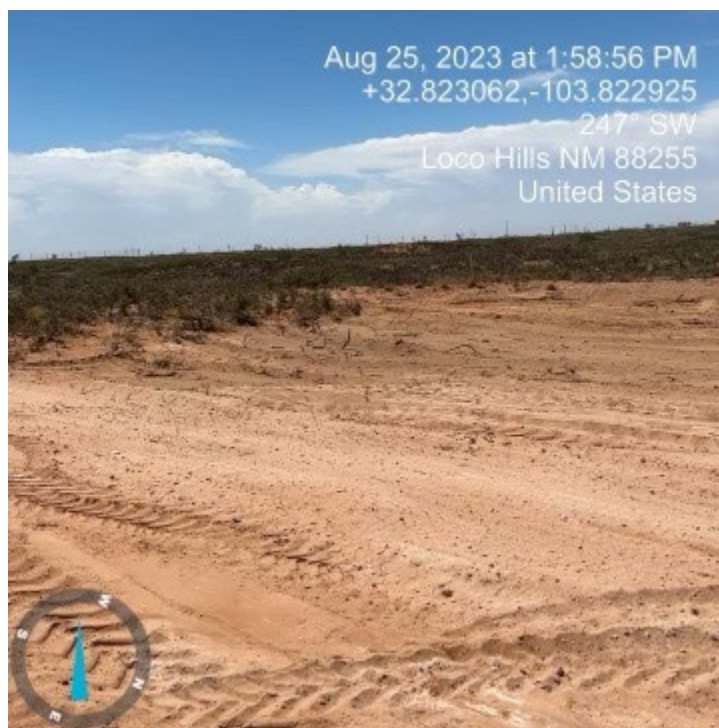
**MACK ENERGY: PARTITION FEDERAL**  
**FINAL PHOTOS**



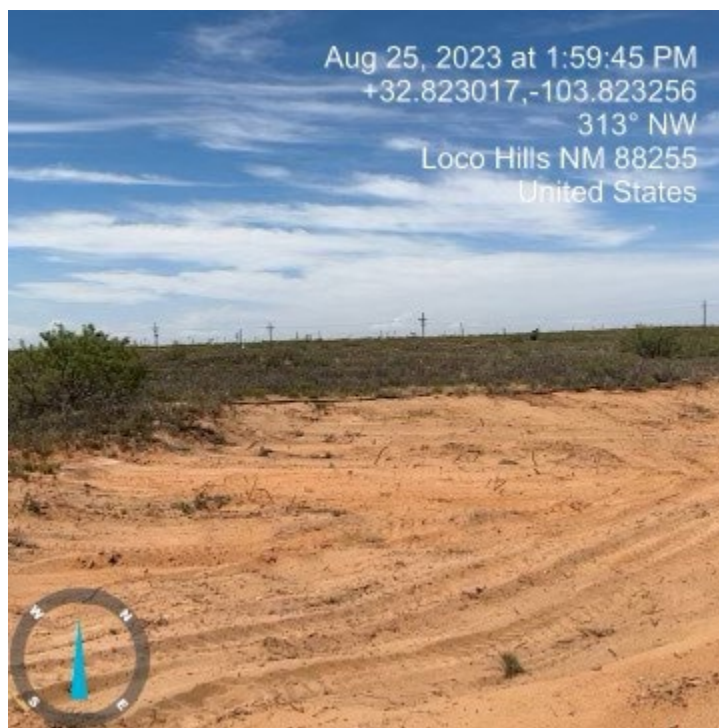












Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS

Action 463573

**QUESTIONS**

|  |  |
|--|--|
| Operator:<br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br>13837  |
|  | Action Number:<br>463573   |
|  | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

|                      |  |
|----------------------|--|
| <b>Prerequisites</b> |  |
| Incident ID (n#)     | nRM2008663010                                  |
| Incident Name        | NRM2008663010 PARTITION FEDERAL @ 30-015-43530 |
| Incident Type        | Oil Release                                    |
| Incident Status      | Reclamation Report Received                    |
| Incident Well        | [30-015-43530] PARTITION 13 FEDERAL NC #005H   |

**Location of Release Source**

Please answer all the questions in this group.

|                         |                   |
|-------------------------|-------------------|
| Site Name               | PARTITION FEDERAL |
| Date Release Discovered | 03/15/2020        |
| Surface Owner           | Federal           |

**Incident Details**

Please answer all the questions in this group.

|  |             |
|--|-------------|
| Incident Type  | Oil 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  | Cause: Equipment Failure   Other (Specify)   Crude Oil   Released: 90 BBL   Recovered: 60 BBL   Lost: 30 BBL. |
| Produced Water Released (bbls) Details   | Not answered.   |
| Is the concentration of chloride in the produced water >10,000 mg/l  | Not answered.   |
| 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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**Oil Conservation Division**  
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QUESTIONS, Page 2

Action 463573

**QUESTIONS (continued)**

|  |  |
|--|--|
| Operator:<br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br>13837  |
|  | Action Number:<br>463573   |
|  | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

| <b>Nature and Volume of Release (continued)</b>   |  |
|---|--|
| 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  | Yes  |
| Reasons why this would be considered a submission for a notification of a major release   | From paragraph A. "Major release" determine using:<br>(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more. |
| 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   | N/A  |

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<br>Title: Environmental<br>Email: natalie@energystaffingllc.com<br>Date: 05/15/2025 |
|--|---|

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QUESTIONS, Page 3

Action 463573

**QUESTIONS (continued)**

|  |  |
|--|--|
| Operator:<br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br>13837  |
|  | Action Number:<br>463573   |
|  | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

|  |                                |
|--|--------------------------------|
| <b>Site Characterization</b>   |                                |
| <i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i> |                                |
| What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)   | Between 26 and 50 (ft.)        |
| What method was used to determine the depth to ground water  | NM OSE iWaters Database Search |
| Did this release impact groundwater or surface water   | No                             |
| <b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>   |                                |
| A continuously flowing watercourse or any other significant watercourse  | Greater than 5 (mi.)           |
| Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)  | Greater than 5 (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                             |

|   |            |
|---|------------|
| <b>Remediation Plan</b>   |            |
| <i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>  |            |
| Requesting a remediation plan approval with this submission   | Yes        |
| <i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>  |            |
| Have the lateral and vertical extents of contamination been fully delineated  | Yes        |
| Was this release entirely contained within a lined containment area   | No         |
| <b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)   |            |
| Chloride (EPA 300.0 or SM4500 Cl B)   | 284        |
| TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)   | 13030      |
| GRO+DRO (EPA SW-846 Method 8015M)   | 13030      |
| BTEX (EPA SW-846 Method 8021B or 8260B)   | 0.3        |
| Benzene (EPA SW-846 Method 8021B or 8260B)  | 0.3        |
| <i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>  |            |
| On what estimated date will the remediation commence  | 08/05/2023 |
| On what date will (or did) the final sampling or liner inspection occur   | 08/09/2023 |
| On what date will (or was) the remediation complete(d)  | 08/25/2023 |
| What is the estimated surface area (in square feet) that will be reclaimed  | 5585       |
| What is the estimated volume (in cubic yards) that will be reclaimed  | 207        |
| What is the estimated surface area (in square feet) that will be remediated   | 6814       |
| What is the estimated volume (in cubic yards) that will be remediated   | 763        |
| <i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>  |            |
| <i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i> |            |

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QUESTIONS, Page 4

Action 463573

**QUESTIONS (continued)**

|  |  |
|--|--|
| Operator:<br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br>13837  |
|  | Action Number:<br>463573   |
|  | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

|  |  |
|--|--|
| <b>Remediation Plan (continued)</b>  |  |
| <i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>   |  |
| <b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>   |  |
| <i>(Select all answers below that apply.)</i>  |  |
| (Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)  | Yes  |
| Which OCD approved facility will be used for <b>off-site</b> disposal  | LEA LAND LANDFILL [FEEM0112342028]   |
| <b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal  | Not answered.  |
| <b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state   | Not answered.  |
| <b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility   | Not answered.  |
| (Ex Situ) Excavation and <b>on-site</b> 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   |
| <i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>   |  |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |  |
| I hereby agree and sign off to the above statement   | Name: Natalie Gladden<br>Title: Environmental<br>Email: <a href="mailto:natalie@energystaffingllc.com">natalie@energystaffingllc.com</a><br>Date: 05/15/2025 |
| <i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>  |  |

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QUESTIONS, Page 5

Action 463573

QUESTIONS (continued)

|  |  |
|--|--|
| Operator:<br><br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br><br>13837  |
|  | Action Number:<br><br>463573   |
|  | Action Type:<br><br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

QUESTIONS

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

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QUESTIONS, Page 6

Action 463573

**QUESTIONS (continued)**

|  |  |
|--|--|
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|  | Action Number:<br>463573   |
|  | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

| Sampling Event Information  |            |
|---|------------|
| Last sampling notification (C-141N) recorded  | 463624     |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | 07/24/2023 |
| What was the (estimated) number of samples that were to be gathered                             | 73         |
| What was the sampling surface area in square feet   | 6814       |

**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  | 6814 |
| What was the total volume (cubic yards) remediated   | 763  |
| 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   | 5585 |
| What was the total volume (in cubic yards) reclaimed   | 207  |
| Summarize any additional remediation activities not included by answers (above)  | N/A  |

*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<br>Title: Environmental<br>Email: <a href="mailto:natalie@energystaffingllc.com">natalie@energystaffingllc.com</a><br>Date: 05/15/2025 |
|--|--|



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QUESTIONS, Page 7

Action 463573

**QUESTIONS (continued)**

|  |  |
|--|--|
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|  | Action Number:<br>463573   |
|  | Action Type:<br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

**QUESTIONS**

|  |  |
|--|--|
| <b>Reclamation Report</b>  |  |
| <i>Only answer the questions in this group if all reclamation steps have been completed.</i>   |  |
| Requesting a reclamation approval with this submission   | Yes  |
| What was the total reclamation surface area (in square feet) for this site   | 5585   |
| What was the total volume of replacement material (in cubic yards) for this site   | 207  |
| <i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>  |  |
| Is the soil top layer complete and is it suitable material to establish vegetation   | Yes  |
| On what (estimated) date will (or was) the reseeded commence(d)  | 08/25/2023   |
| Summarize any additional reclamation activities not included by answers (above)  | SEEDED WITH BLM #3 SEED  |
| <i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed 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>   |  |
| 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<br>Title: Environmental<br>Email: <a href="mailto:natalie@energystaffingllc.com">natalie@energystaffingllc.com</a><br>Date: 05/15/2025 |

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QUESTIONS, Page 8

Action 463573

QUESTIONS (continued)

|  |  |
|--|--|
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|  | Action Number:<br><br>463573   |
|  | Action Type:<br><br>[C-141] Reclamation Report C-141 (C-141-v-Reclamation) |

QUESTIONS

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

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CONDITIONS

Action 463573

**CONDITIONS**

|  |  |
|--|--|
| Operator:<br>MACK ENERGY CORP<br>P.O. Box 960<br>Artesia, NM 882110960 | OGRID:<br>13837  |
|  | Action Number:<br>463573   |
|  | Action Type:<br>[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 #NRM2008663010 PARTITION FEDERAL, thank you. The reclamation/remediation closure report is approved. For future reference, the reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical. | 5/21/2025      |