

# KLONDIKE STATE LEASE CLOSURE REQUEST

# API NO. 30-005-64295 Unit Letter I, Section 26, Township 15S, Range 28E CHAVES COUNTY, NEW MEXICO

DATE OF RELEASE: 10/15/2017 INCIDENT NO. 2RP-446/NAB1729158101

2/11/25 Corrected 7/29/2025 Prepared by:



July 29, 2025

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

New Mexico State Land Office Water Bureau Manager Faith Crosby 1001 South Atkinson Ave Roswell, NM 88203

Mack Energy Corporation 11344 Lovington Hwy Artesia, NM 88210

Subject: Closure Report for Mack Energy Corporation – Klondike State Lease

API No. 30-005-64295 Incident No. 2RP-4446/NAB1729158101 Unit Letter I, Section 26, Township 15 South, Range 28 East Chaves County, New Mexico

To Whom it May Concern:

Mack Energy has retained Energy Staffing Services, LLC (ESS) to conduct a spill assessment for the Klondike State Lease (hereafter referred to as the "Klondike") for the produced water release that occurred on October 15<sup>th</sup> of 2017. BBC International, INC. (BBC) 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* and the *New Mexico State Land Office (SLO)*, via email on October 15<sup>th</sup>, 2017, at 3:51 PM (Notification Attached). Mack Energy also submitted the initial C141 Release Notification (attached) on October 16<sup>th</sup>, 2017. The NMOCD accepted the C141 as record on October 18<sup>th</sup>, 2017, and assigned the incident number of 2RP-446/NAB1729158101. (Notification of correspondence is attached).

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

#### **Incident Description**

On October 16<sup>th</sup>, 2017, at approximately 7:30 AM, a leak occurred in a transfer line located on the lease road. The produced water gathered on both sides of the road and pooled up in a low spot. It was determined after measuring the area of impact that approximately 200 barrels of produced water, with no fluid recovered, was released onto both sides of the road. Initial site photos and measuring of the impacted area were conducted by BBC.

#### Site Characterization

The release at the Klondike occurred on State Land and is located at 32.986131 latitude and - 104.098172 longitude, 18.6 miles northwest of Loco Hills, New Mexico. The legal description of the site is Unit Letter I, Section 26, Township 15 South and Range 28 East. The site is located in Chaves County, New Mexico. Please see site schematic attached.

The Klondike consists of production lines and is near production facilities and well pads. The area of the release occurred on the lease road, which runs parallel to the production pad for the Klondike. The elevation is 3,467 ft. The area is historically or has been primarily dominated by Alkali sacaton, Adonis blazing star, black grama, Indian rice grass, Pleuraphis rigida, and other perennial grasses. Please find attached the Rangeland and Vegetation Classification information attached.

The United States Department of Agriculture Natural Resources Conservation Services indicates that the soil type of the Klondike consists of 29.7% Tencee-Sotim association, 20.7% Pajarito-Pintura complex, 15.2% Torriorthents, 14.9% Holloman-Gypsum land complex, 9.5% Alama loam, 9.4% Sotim fine sandy loam, and 0.7% Berino-Pintura complex sands. (Soil Map Attached). In the area of the Klondike the FEMA National Flood Hazard Layer indicates that there is 0.2% annual 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 Klondike site, according to the *United States Department of the Interior, Bureau of Land Management*. Please find the Karst Map attached herein.

There is no surface water located near or around the Klondike. 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 found at the Klondike site. (Attached Watercourse Map).

The nearest and most recent well to site according to the *New Mexico Office of the State Engineer* is RA12428, drilled in 2016 with a well depth of 170 feet and a groundwater depth of 125 feet. This well is located 4,291 yards from the site. The second well is RA12429 POD1, drilled in 2016 with a well depth of 62 feet and a groundwater depth of 27 feet, located 5,442 yards from the site. The third well is RA09248, drilled in 1996 with a well depth of 150 feet and a groundwater depth of 45 feet. This well is located 6,209 feet from the site. The fourth well is

RA10280, drilled in 2002 with a well depth of 70 feet and a groundwater depth of 40 feet, located 6,305 yards from the site. The fifth well is RA09059, drilled in 1996 with a well depth of 110 feet and a groundwater depth of 35 feet. This well is located 6,752 yards from the site. An extended groundwater search was conducted using the *OSE POD Location Mapping System* and it was determined that RA08333 was found to be within a ½ mile radius of the Klondike release but has no available well depth or groundwater data available. 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 State Land and with having "low karst potential", the site fell under <50' to groundwater. This is only due to not having any recent or available water depths.

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

#### **Soil Remediation Action Levels**

ESS has provided sufficient data that this release has impacted soil at the Klondike 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 directions 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 Evaluation**

Upon the discovery of the release on the Klondike, Mack retained BBC to conduct the initial site assessment and delineation. BBC submitted the delineation workplan and conducted sampling for the delineation phase per the guidelines of the NMOCD. Due to BBC being the owner of records

at the time of the release, information is limited to their submitted delineation workplan. Please see workplan attached to this report.

On September 1<sup>st</sup>, 2022, Mack retained ESS to conduct the confirmation sampling of the remediation phase completed by BBC at the Klondike release. Please see photos attached.

On October 3<sup>rd</sup>, 2022, ESS crews began to obtain 200 sq. ft. composites from the excavated area of the Klondike. A total of 108 bottom hole composites were obtained, field tested and submitted to Envirotech Laboratory for confirmation. One composite returned with elevated Chlorides. This area was excavated further by Bullseye Construction and retested by ESS. As you can see on the composite data sheet below, the elevated composite in red, then follow with the deeper composite that was obtained and passed the concentration levels for this site. Please find the composite sample data below as well as attached to this report followed by lab confirmation data.

SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL
COMP 1	4	20	L	ND	ND	ND	ND	ND	ND
COMP 2	4	20	L	ND	ND	ND	ND	ND	ND
COMP 3	4	20	L	ND	ND	ND	ND	ND	ND
COMP 4	4	220	L	ND	ND	ND	ND	ND	219
COMP 5	4	320	L	ND	ND	ND	ND	ND	327
COMP 6	4	20	L	ND	ND	ND	ND	ND	ND
COMP 7	4	20	L	ND	ND	ND	ND	ND	ND

COMP 8	4	220	L	ND	ND	ND	ND	ND	222
COMP 9	4	400	L	ND	ND	ND	ND	ND	398
COMP 10	4	500	L	ND	ND	ND	ND	ND	496
COMP 11	4	240	L	ND	ND	ND	ND	ND	233
COMP 12	4	80	L	ND	ND	ND	ND	ND	75.3
COMP 13	4	20	L	ND	ND	ND	ND	ND	21
COMP 14	4	400	L	ND	ND	ND	ND	ND	682
COMP14A	6	80	L	ND	ND	ND	ND	ND	41.9
COMP 15	4	320	L	ND	ND	ND	ND	ND	ND
COMP 16	4	160	L	ND	ND	ND	ND	ND	ND
COMP 17	4	80	L	ND	ND	ND	ND	ND	ND
COMP 18	4	80	L	ND	ND	ND	ND	ND	ND
COMP 19	4	160	L	ND	ND	ND	ND	ND	ND
COMP 20	4	80	L	ND	ND	ND	ND	ND	ND
COMP 21	4	80	L	ND	ND	ND	ND	ND	ND
COMP 22	4	80	L	ND	ND	ND	ND	ND	ND
COMP 23	4	80	L	ND	ND	ND	ND	ND	ND
COMP 24	4	80	L	ND	ND	ND	ND	ND	ND
COMP 25	4	80	L	ND	ND	ND	ND	ND	ND
COMP 26	4	80	L	ND	ND	ND	ND	ND	ND
COMP 27	4	80	L	ND	ND	ND	ND	ND	ND
COMP 28	4	80	L	ND	ND	ND	ND	ND	ND
COMP 29	4	80	L	ND	ND	ND	ND	ND	ND
COMP 30	4	80	L	ND	ND	ND	ND	ND	ND
COMP 31	4	80	L	ND	ND	ND	ND	ND	ND
COMP 32	4	80	L	ND	ND	ND	ND	ND	ND
COMP 33	4	80	L	ND	ND	ND	ND	ND	ND
COMP 34	4	80	L	ND	ND	ND	ND	ND	ND
COMP 35	4	240	L	ND	ND	ND	ND	ND	ND
COMP 36	4	240	L	ND	ND	ND	ND	ND	ND
COMP 37	4	80	L	ND	ND	ND	ND	ND	ND
COMP 38	4	80	L	ND	ND	ND	ND	ND	ND
COMP 39	4	80	L	ND	ND	ND	ND	ND	ND
COMP 40	4	80	L	ND	ND	ND	ND	ND	ND
COMP 41	4	80	L	ND	ND	ND	ND	ND	ND
COMP 42	4	80	L	ND	ND	ND	ND	ND	ND
COMP 43	4	80	L	ND	ND	ND	ND	ND	ND
COMP 45	4	80	L	ND	ND	ND	ND	ND	ND

COMP 46	4	80	L	ND	ND	ND	ND	ND	ND
COMP 47	4	80	L	ND	ND	ND	ND	ND	ND
COMP 48	4	80	L	ND	ND	ND	ND	ND	ND
COMP 49	4	160	L	ND	ND	ND	ND	ND	ND
COMP 50	4	160	L	ND	ND	ND	ND	ND	ND
COMP 51	4	160	L	ND	ND	ND	ND	ND	ND
COMP 52	4	160	L	ND	ND	ND	ND	ND	ND
COMP 53	4	80	L	ND	ND	ND	ND	ND	ND
COMP 54	4	80	L	ND	ND	ND	ND	ND	ND
COMP 55	4	80	L	ND	ND	ND	ND	ND	ND
COMP 56	4	80	L	ND	ND	ND	ND	ND	ND
COMP 57	4	320	L	ND	ND	ND	ND	ND	ND
COMP 58	4	320	L	ND	ND	ND	ND	ND	ND
COMP 59	4	320	L	ND	ND	ND	ND	ND	ND
COMP 60	4	320	L	ND	ND	ND	ND	ND	312
COMP 61	4	240	L	ND	ND	ND	ND	ND	ND
COMP 62	4	240	Ĺ	ND	ND	ND	ND	ND	ND
COMP 63	4	80	L	ND	ND	ND	ND	ND	ND
COMP 64	4	80	L	ND	ND	ND	ND	ND	ND
COMP 65	4	80	L	ND	ND	ND	ND	ND	ND
COMP 66	4	80	L	ND	ND	ND	ND	ND	ND
COMP 67	4	80	L	ND	ND	ND	ND	ND	ND
COMP 68	4	80	L	ND	ND	ND	ND	ND	ND
COMP 69	4	160	L	ND	ND	ND	ND	ND	ND
COMP 70	4	160	L	ND	ND	ND	ND	ND	ND
COMP 71	4	240	L	ND	ND	ND	ND	ND	ND
COMP 72	4	240	L	ND	ND	ND	ND	ND	ND
COMP 73	4	240	L	ND	ND	ND	ND	ND	ND
COMP 74	4	320	L	ND	ND	ND	ND	ND	ND
COMP 75	4	320	L	ND	ND	ND	ND	ND	ND
COMP 76	4	80	L	ND	ND	ND	ND	ND	ND
COMP 77	4	80	L	ND	ND	ND	ND	ND	ND
COMP 78	4	80	L	ND	ND	ND	ND	ND	ND
COMP 79	4	80	L	ND	ND	ND	ND	ND	ND
COMP 80	4	80	L	ND	ND	ND	ND	ND	ND
COMP 81	4	80	L	ND	ND	ND	ND	ND	ND
COMP 82	4	80	L	ND	ND	ND	ND	ND	ND
COMP 83	4	80	L	ND	ND	ND	ND	ND	ND

COMP 84	4	80	L	ND	ND	ND	ND	ND	ND
SWC1	2	80	L	ND	ND	ND	ND	ND	ND
SWC2	2	80	L	ND	ND	ND	ND	ND	ND
SWC3	2	80	L	ND	ND	ND	ND	ND	ND
SWC4	2	80	L	ND	ND	ND	ND	ND	ND
SWC5	2	80	L	ND	ND	ND	ND	ND	ND
SWC6	2	80	L	ND	ND	ND	ND	ND	ND
SWC7	2	80	L	ND	ND	ND	ND	ND	ND
SWC8	2	80	L	ND	ND	ND	ND	ND	ND
SWC9	2	80	L	ND	ND	ND	ND	ND	ND
SWC10	2	80	L	ND	ND	ND	ND	ND	ND
SWC11	2	80	L	ND	ND	ND	ND	ND	ND
SWC12	2	80	L	ND	ND	ND	ND	ND	ND
SWC13	2	80	L	ND	ND	ND	ND	ND	ND
SWC14	2	80	L	ND	ND	ND	ND	ND	ND
SWC15	2	80	L	ND	ND	ND	ND	ND	ND
SWC16	2	80	L	ND	ND	ND	ND	ND	ND
SWC17	2	80	L	ND	ND	ND	ND	ND	ND
SWC18	2	80	L	ND	ND	ND	ND	ND	ND
SWC19	2	80	L	ND	ND	ND	ND	ND	ND
SWC20	2	80	L	ND	ND	ND	ND	ND	ND
SWC21	2	80	L	ND	ND	ND	ND	ND	ND
SWC22	2	80	L	ND	ND	ND	ND	ND	ND
SWC23	2	80	L	ND	ND	ND	ND	ND	ND
SWC24	2	80	L	ND	ND	ND	ND	ND	ND

#### Composite Data and Mapping Attachments – Requested 06/10/2025

Please find the corrected spreadsheet with the composite data (as requested on 06/10/2025) attached to this report. Also included are zoomed-in maps for the following composite locations: C8, C49, C52, C58, C75, and C78.

Regarding C15, the GPS coordinates are accurate. Please see the attached map illustrating the placement of this composite.

The conditions of approval for the remediation plan submitted by BBC specified excavation to 3' Bgs; however, the OCD requested an additional foot of depth. All composites were therefore collected by ESS at 4' Bgs, with the exception of C14, which was taken at 6' Bgs.

Additionally, ESS obtained a 5-point composite sample of the backfill material used by BBC at the site.

Please note that all composites collected by ESS were obtained using a cored hand auger to reach the specified depths of 4' and 6', as previously discussed with Mike Bratcher in 2024. ESS was not responsible for the excavation activities and was only brought in to collect missed composite samples originally required of BBC.

Please find the remediation and final photos attached herein.

The impacted area of the Klondike measured 16,800 square feet. During the remediation phase, a total of 1,220 cubic yards of contaminated soil was excavated and hauled to Gandy's Disposal by Bullseye Construction. A total of 1,586 cubic yards of caliche and topsoil were hauled from Gandy's Disposal and Mack's Bogel's Pit for backfill of this site by Bullseye Construction. Backfilling and seeding procedures were completed on December 5<sup>th</sup>, 2024, by Bullseye Construction.

#### **Closure Request**

On behalf of Mack Energy, ESS request that the incident (2RP-4446/NAB1729158101), be closed for the release that occurred on the lease road of the Klondike State Lease. Mack Energy and ESS certifies that all of the information provided and that is detailed in this report is true and correct. We have also complied with all of the applicable closure requirements for the release that occurred on the Klondike 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 <a href="mailto:natalie@energystaffingllc.com">natalie@energystaffingllc.com</a>.

Sincerely,

Director of Environmental and Regulatory Services

**Energy Staffing Services, LLC.** 

2724 NW County Road Hobbs, NM 88240

Cell: 575-390-6397 Office: 575-393-9048

Email: natalie@energystaffingllc.com



#### **Attachments**

Initial C141

Impact Map

Site Map

Rangeland and Vegetation Classification

Soil Map

FEMA National Flood Hazard Layer Map

**Karst Geology Map** 

Watercourse Map

**Groundwater Information** 

**Groundwater Map** 

**OSE POD Map** 

**Workplan Notification** 

BBC, INC. Workplan

**Workplan Approval Notification** 

**Composite Notification** 

**Site Photos** 

**Composite Sample Data** 

Composite Sample Map and GPS Log

Composite Lab Analysis

Remediation and Final Photos

Final C141

From: Weaver, Crystal, EMNRD

To: "Matt Buckles"; Bratcher, Mike, EMNRD; agroves@slo.state.nm.us

Cc: Lee Livingston; Jerry Sherrell

Subject: RE: C-141 on the Klondike Release

Date: Monday, November 20, 2017 1:49:00 PM

Attachments: 1. 4446 - COAs and signed C-141 Initial.pdf

RE: Mack Energy \* Klondike State Lease \* 30-005-64295 \* 2RP-4446

Matt,

I have included a scanned copy of the signed Initial C-141 Remediation Permit along with an attached Conditions of Approval. The OCD tracking number for this event is 2RP-4446. Please remit a site characterization plan or advise OCD of plan of action by no later than 11/30/17.

Thank you,

### **Crystal Weaver**

Environmental Specialist OCD – Artesia District II

811 S. 1<sup>st</sup> Street Artesia, NM 88210

Office: 575-748-1283 ext. 101

Cell: 575-840-5963 Fax: 575-748-9720

**From:** Matt Buckles [mailto:mattbuckles@mec.com]

Sent: Tuesday, October 17, 2017 4:52 PM

To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD

<Crystal.Weaver@state.nm.us>; agroves@slo.state.nm.us

**Cc:** Lee Livingston <leel@mec.com>; Jerry Sherrell <jerrys@mec.com>

**Subject:** RE: C-141 on the Klondike Release

From: Matt Buckles

Sent: Tuesday, October 17, 2017 4:51 PM

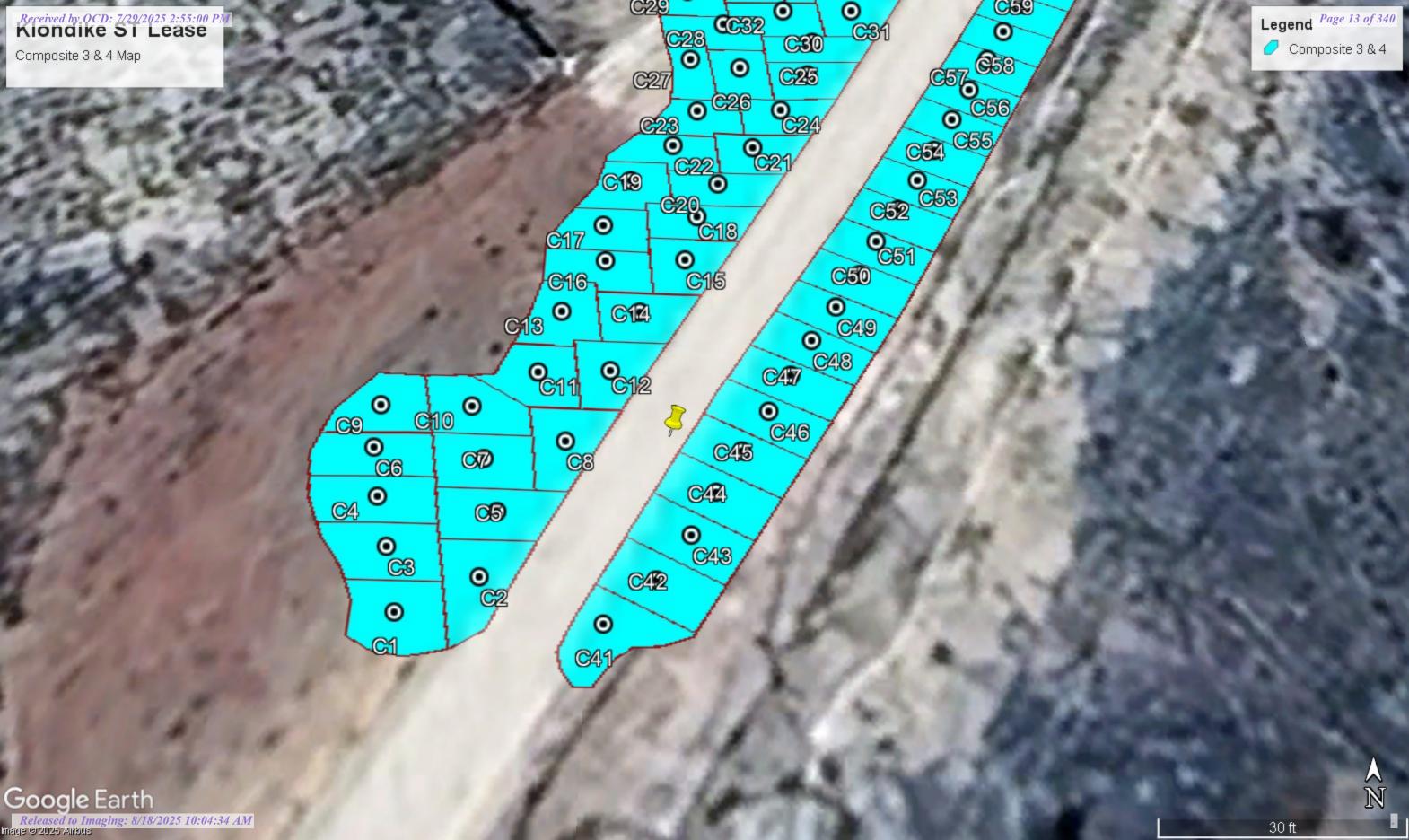
To: 'Bratcher, Mike, EMNRD'; <a href="mailto:crystal.Weaver@state.nm.us">crystal.Weaver@state.nm.us</a>; 'agroves@slo.state.nm.us'

Cc: Lee Livingston; Jerry Sherrell

**Subject:** C-141 on the Klondike Release

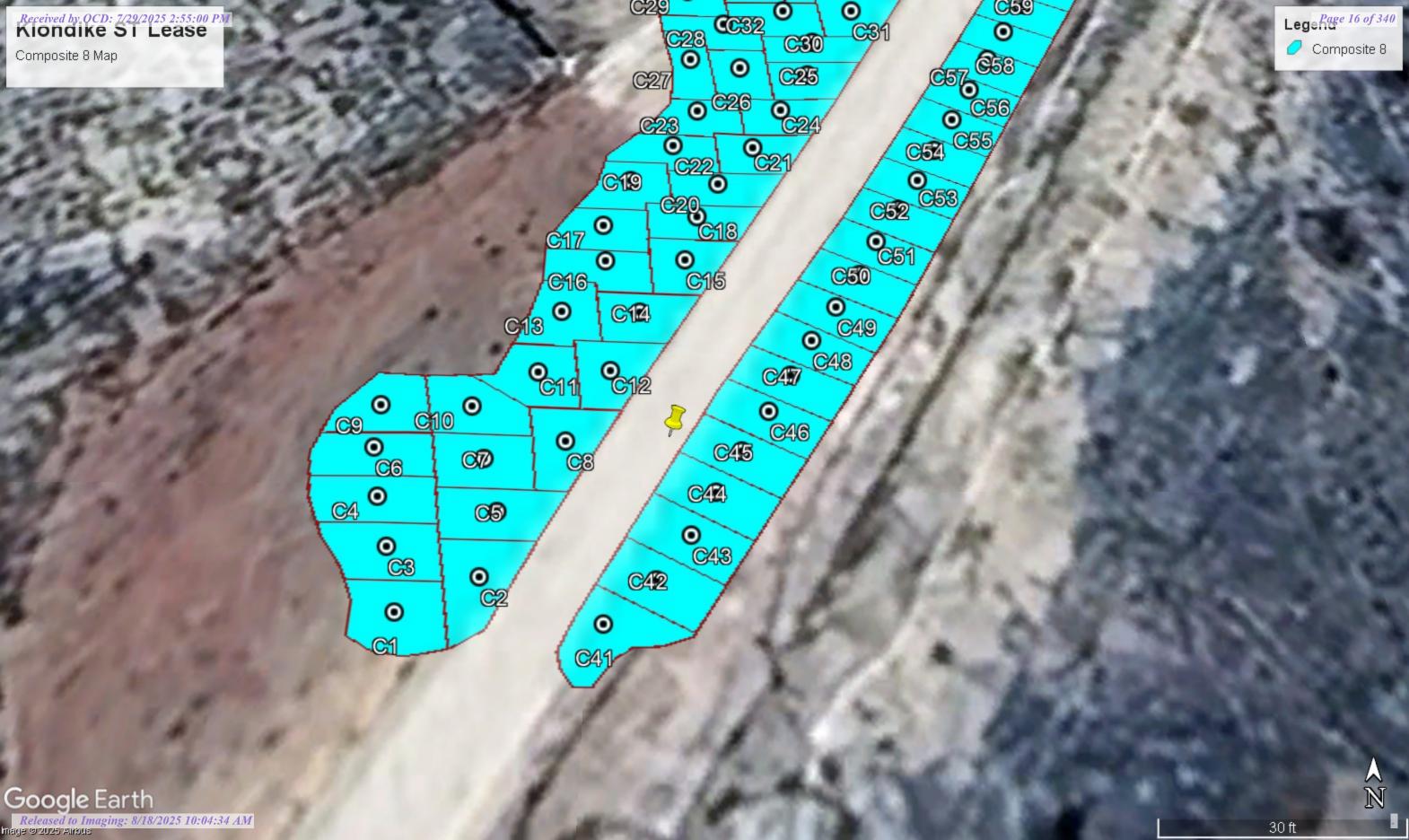
Here is the completed C-141. Let me know if you have any questions or concerns.











#### Thanks,

#### Matt Buckles

From: Matt Buckles

**Sent:** Monday, October 16, 2017 3:51 PM

To: 'Bratcher, Mike, EMNRD'; <a href="mailto:crystal.Weaver@state.nm.us">crystal.Weaver@state.nm.us</a>; 'agroves@slo.state.nm.us'

Cc: Lee Livingston; Jerry Sherrell

Subject: Immediate Notice on the Klondike Release

Good Afternoon,

Mack Energy had a release on the Klondike State Lease in Chaves County of approximately 200 Bbls of produced water. The release was discovered this morning 10/16/2017 at approximately 7:30am. We will be submitting a C-141 shortly.

Thanks,

Matt Buckles Mack Energy Corporation 11344 Lovington Highway Artesia NM 88210

575-748-1288 Office 575-703-1958 Mobile 575-746-5508 Fax

Email:mattbuckles@mec.com

http://www.mec.com

#### **NM OIL CONSERVATION**

ARTESIA DISTRICT

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 OCT 17 2017

Form C-141 Revised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 special appropriate District Office in accordance with 19.15.29 NMAC.

			Rel	ease Notific	ation	and Co	rrective A	ction	1	···		
	29158					OPERA?	ΓOR			l Report		Final Report
Name of Co		ack Energy		13837		Contact Ma		20				
Address PO Facility Nar		ike State Lea	ise	<del></del>		Facility Typ	No. 575-748- <u>128</u> le. Well	38				
									1 . 5-5:	20.005.6	120.5	
Surface Ow	ner NMS	LO		Mineral C	wner N	IMSLO			API No	. 30-005-6	4295	
						OF RE						
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/\	West Line	County		
1	26	15S	28E	2350	South		1330		East	Chaves		
		La	atitude_	32.986131	Lo	ngitude	104.098172	N	AD83			
				NAT	URE	OF REL	EASE					
Type of Rele							Release 200 Bbl		Volume F	Recovered (	)	
Source of Re	lease Trans	sfer Line				Date and H 10/15/17 @	Iour of Occurrenc	e	Date and 10/16/17	Hour of Dis @ 7:30am	scovery	
Was Immedia	ate Notice (					If YES, To	Whom?					
			Yes _	No Not Re	equired	<u> </u>	cher, Crystal Wear		ber Groves			
By Whom? N Was a Water							lour 10/16/17 4pn					
was a water	course Read		Yes 🛭	No No		II YES, VO	olume Impacting t	ne wat	ercourse.			
If a Watercou	irse was Im	pacted, Descr	ibe Fully.	*		<u> </u>				<del></del>		
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D	CD 11	1.0	* 1 4	T.1 -								
Describe Cau	ise of Probl	em and Reme	dial Actio	on Taken.*								
A leak occur	red in a trar	nsfer line, will	begin ren	nediation by remo	ving cor	ntaminated so	il.					
Describe Are	a Affected	and Cleanup	Action Ta	ken.*								
The release of	ccurred on	the road. The	produced	d water gathered o	n both si	ides of the ro	ad and pooled up	in a low	spot, The	area is appi	roximate	ely 4,000
square feet st	ırface area.	We will fully	delineate	e and discuss reme	diation	plans.						
I hereby certi	fy that the	information g	iven abov	e is true and comp	lete to th	ne best of my	knowledge and u	ındersta	nd that purs	suant to NM	IOCD r	ules and
				nd/or file certain r ce of a C-141 repo								
should their o	perations h	nave failed to	adequatel	y investigate and r	emediate	e contaminat	ion that pose a thre	eat to g	round water	, surface w	ater, hu	man health
		addition, NMC ws and/or regi		ptance of a C-14I	report d	oes not reliev	e the operator of	respons	ibility for c	ompliance v	with any	other
icuciai, state	or local la	ws and/or regi	ilations.				OIL CON	SERV	ATION	DIVISIO	ON	
Gi	D. 11						012 00111	<u>SEIC</u>	11	.1	<u> </u>	
Signature: M	latt Buckles	<u> </u>				Annroyad by	Environmental's	By	Alle &	September	874	ec.
Printed Name	e: Matt Buc	kles					Lawnoninonal 5	PCCIAITS				
Title: Enviro	nmental					Approval Da	te: 10/18/	17	Expiration	Date: N	IA	
E mail A J I	agi matil	aldaa@a-										
E-mail Addre	ss: mattou	ckles@mec.co	on 1			Conditions 0	f Approval:	011	achan	Attached	DET.	2-4446
	6/2017			Phone: 575-748-	1288		<u> </u>	יומי	nunc		CNI	4416
* Attach Addi	tional She	ets II Necess	ary									

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/17/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number that has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 11/17/2017 If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- •Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.
- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.
- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

#### Bratcher, Mike, EMNRD

From: Matt Buckles <mattbuckles@mec.com>

**Sent:** Tuesday, October 17, 2017 4:52 PM

To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; agroves@slo.state.nm.us

Cc: Lee Livingston; Jerry Sherrell

Subject: RE: C-141 on the Klondike Release

Attachments: Klondike Lease.pdf

From: Matt Buckles

Sent: Tuesday, October 17, 2017 4:51 PM

To: 'Bratcher, Mike, EMNRD'; Crystal.Weaver@state.nm.us; 'agroves@slo.state.nm.us'

**Cc:** Lee Livingston; Jerry Sherrell **Subject:** C-141 on the Klondike Release

Here is the completed C-141. Let me know if you have any questions or concerns.

Thanks,

**Matt Buckles** 

From: Matt Buckles

Sent: Monday, October 16, 2017 3:51 PM

To: 'Bratcher, Mike, EMNRD'; Crystal.Weaver@state.nm.us; 'agroves@slo.state.nm.us'

**Cc:** Lee Livingston; Jerry Sherrell

Subject: Immediate Notice on the Klondike Release

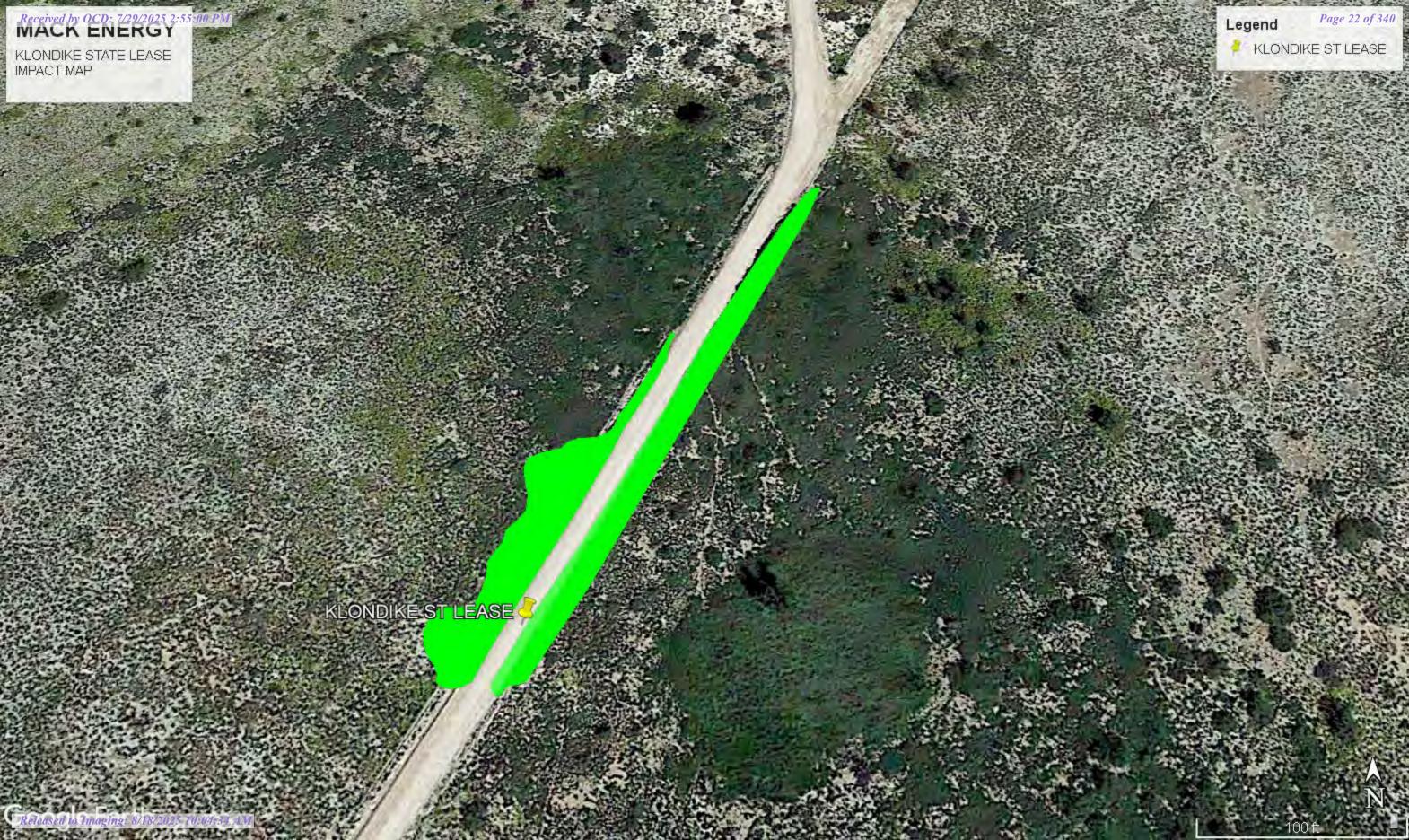
Good Afternoon,

Mack Energy had a release on the Klondike State Lease in Chaves County of approximately 200 Bbls of produced water. The release was discovered this morning 10/16/2017 at approximately 7:30am. We will be submitting a C-141 shortly.

Thanks,

Matt Buckles
Mack Energy Corporation
11344 Lovington Highway
Artesia NM 88210
575-748-1288 Office
575-703-1958 Mobile
575-746-5508 Fax
Email:mattbuckles@mec.com
http://www.mec.com

1





KLONDIKE STATE LEASE

# 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.

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

KLONDIKE STATE LEASE

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

Map unit symbol and soil		Total d	lry-weight prod	luction	Characteristic rangeland	Compositio		
name	Association, or Habitat Type	Favorable year	Normal year	Unfavorable year	or forest understory vegetation	n	Rangeland	Forest understory
		Lb/ac	Lb/ac	Lb/ac		Pct dry wt	Pct dry wt	
Aa—Alama loam								
Alama	Loamy (R070BC007NM)	1,200	-	650	Adonis blazingstar	30		
					black grama	15		
					other perennial grasses	15	+	
					blue grama	10		
					bush muhly	5		
					little bluestem	5		
					other shrubs	5		
					other perennial forbs	5		
					rabo de ardilla	5		
					threeawn	5		
					yucca	5		

Map unit symbol and soil	Ecological Site, Plant	Total d	ry-weight proc	luction	Characteristic rangeland	Compositio		
name	Association, or Habitat Type	Favorable year	Normal year	Unfavorable year	or forest understory vegetation	n	Rangeland	Forest understory
		Lb/ac	Lb/ac	Lb/ac		Pct dry wt	Pct dry wt	
3f—Berino-Pintura complex								
Berino	Sandy (R070BD004NM)	1,200	_	600	black grama	35		
					dropseed	15		
					other perennial forbs	10		
					other perennial grasses	10		
					blue grama	5		
					bush muhly	5		
					little bluestem	5		
					other shrubs	5		
					soaptree yucca	5		
					threeawn	5		
Pintura	Deep Sand	600	400	250	Indian ricegrass	20		
	(R070BD005NM)				Pleuraphis rigida	20		
					other shrubs	15		
					mesa dropseed	10		
					Nevada jointfir	10		
					other perennial grasses	10		
					other perennial forbs	5		
		Place I			sand sagebrush	5		
					threadleaf snakeweed	5		

Map unit symbol and soil	Ecological Site, Plant	Total d	ry-weight prod	duction	Characteristic rangeland	Compositio		
name	Association, or Habitat Type	Favorable year	Normal year	Unfavorable year	or forest understory vegetation	n	Rangeland	Forest understory
		Lb/ac	Lb/ac	Lb/ac		Pct dry wt	Pct dry wt	
HrC—Holloman-Gypsum land complex, 3 to 5 percent slopes								
Holloman	Gyp Upland	800	600	375	alkali sacaton	45		
	(R070BB006NM)				black grama	10		
					coldenia	10		
					blue grama	5		
					fourwing saltbush	5		
					gyp dropseed	5		
					gypsum grama	5		
					other shrubs	5		
					other perennial forbs	5		
					other perennial grasses	5		
Gypsum land								

Map unit symbol and soil	Ecological Site, Plant	Total d	lry-weight prod	duction	Characteristic rangeland	Compositio		
name	Association, or Habitat Type	Favorable year	Normal year	Unfavorable year	or forest understory vegetation	n	Rangeland	Forest understory
		Lb/ac	Lb/ac	Lb/ac		Pct dry wt	Pct dry wt	
Pb—Pajarito-Pintura complex								
Pajarito	Sandy (R070BD004NM)	1,200	-	600	black grama	35		
					dropseed	15		
					other perennial forbs	10		
					blue grama	5		
					bush muhly	5		
					little bluestem	5		
					other shrubs	5		
					other perennial grasses	5		
					rabo de ardilla	5		
					threeawn	5		
					yucca	5		
Pintura	Deep Sand	600	400	250	Indian ricegrass	20		
	(R070BD005NM)				Pleuraphis rigida	20		
					other shrubs	15		
					mesa dropseed	10		
			The Control		Nevada jointfir	10		
					other perennial grasses	10		
				4-76-1	other perennial forbs	5		
					sand sagebrush	5		
				100	threadleaf snakeweed	5		

Map unit symbol and soil	Ecological Site, Plant	Total d	ry-weight prod	luction	Characteristic rangeland	Compositio		
name	Association, or Habitat Type	Favorable year	Normal year	Unfavorable year	or forest understory vegetation	n	Rangeland	Forest understory
		Lb/ac	Lb/ac	Lb/ac		Pct dry wt	Pct dry wt	
So—Sotim fine sandy loam								
Sotim	Sandy (R070BD004NM)	1,200	1-	600	black grama	35		
					dropseed	15		
					other perennial forbs	10		
					blue grama	5		
					bush muhly	5		
					little bluestem	5		
					other shrubs	5		
					other perennial grasses	5		
					plains lovegrass	5		
					threeawn	5		
					yucca	5		
TOF—Torriorthents, very steep								
Torriorthents	-	_		-	_			

Map unit symbol and soil		Total o	dry-weight prod	luction	Characteristic rangeland	Compositio		
name	Association, or Habitat Type	Favorable year	Normal year	Unfavorable year	or forest understory vegetation		Rangeland	Forest understory
		Lb/ac	Lb/ac	Lb/ac		Pct dry wt	Pct dry wt	

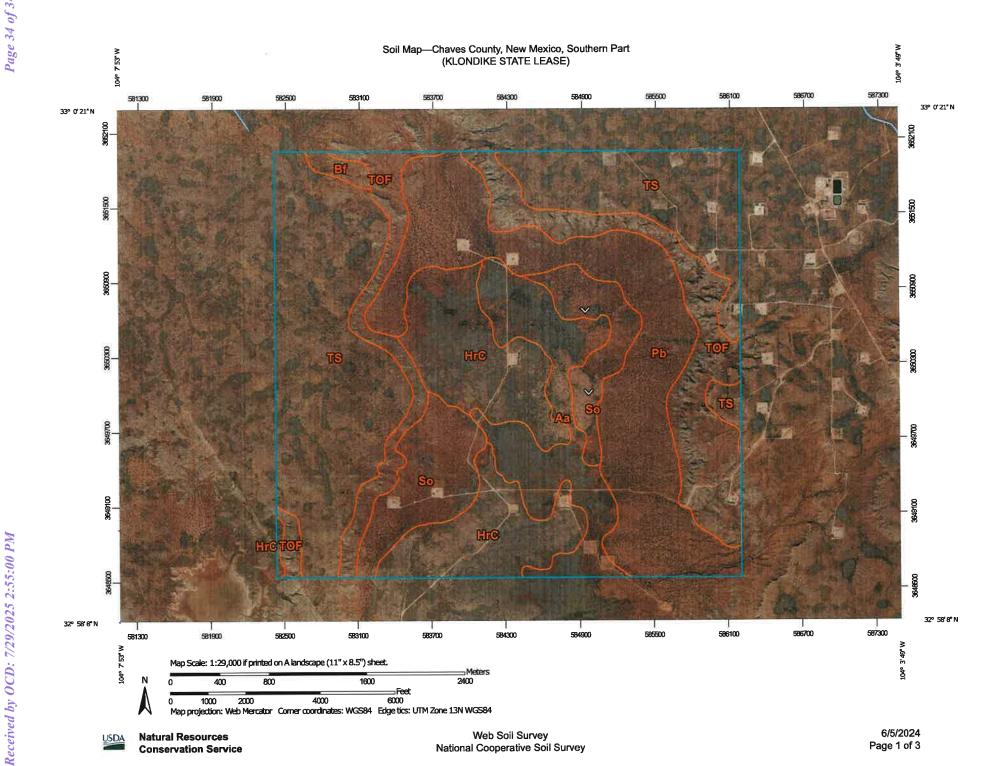
Map unit symbol and soil name	Ecological Site, Plant Association, or Habitat Type	Total dry-weight production			Characteristic rangeland	Compositio		
		Favorable year	Normal year	Unfavorable year	or forest understory vegetation	n	Rangeland	Forest understory
		Lb/ac	Lb/ac	Lb/ac		Pct dry wt	Pct dry wt	
Tencee	Shallow (R070BC025NM)	500	375	125	black grama	20		
					bush muhly	20		
					creosotebush	10		
					other perennial forbs	10		
					other perennial grasses	10		
					broom snakeweed	5		
					Eriogonum	5		
					low woollygrass	5		
					mariola	5		
					rabo de ardilla	5		
					sand dropseed	5		
					crown of thorns	3		
					fourwing saltbush	3		
					javelina brush	2		
					Nevada jointfir	2		
Sotim	Sandy (R070BD004NM)	1,200		600	black grama	35		
					dropseed	15		IS BITTE
					other perennial forbs	10		
					blue grama	5		
					bush muhly	5		
					little bluestem	5		
					other shrubs	5	TO MAIN	MAIN N
					other perennial grasses	5		
					plains lovegrass	5		
					threeawn	5		
USDA Natural Resources Web Soil Sun			eb Soil Survey	yucca	5	38,015	6/5/20	

### **Data Source Information**

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

Survey Area Data: Version 18, Sep 7, 2023

Received by OCD: 7/29/2025 2:55:00 PM



7/29/2025 2:55:00 PM

Received by OCD:

6/5/2024

Page 2 of 3

Released to Imaging: 8/18/2025 10:04:34 AM

### Soil Map—Chaves County, New Mexico, Southern Part (KLONDIKE STATE LEASE)

# MAP LEGEND

0

Δ

**Water Features** 

Transportation

**Background** 

Spoil Area

Stony Spot

Wet Spot

Other

Rails

**US Routes** 

Major Roads

Local Roads

Very Stony Spot

Special Line Features

Streams and Canals

Interstate Highways

Aerial Photography

Web Soil Survey

National Cooperative Soil Survey

#### Area of Interest (AOI)

, 100 0

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

~

Soil Map Unit Lines

Soil

Soil Map Unit Points

**Special Point Features** 

**(b)** Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Maisir of Swarry

Mine or Quarry

Miscellaneous Water

Perennial Water

✓ Rock Outcrop

→ Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

#### MAP INFORMATION

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

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

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

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

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

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

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



# **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
Aa	Alama loam	302.9	9.5%	
Bf	Berino-Pintura complex	21.4	0.7%	
HrC	Holloman-Gypsum land complex, 3 to 5 percent slopes	476.5	14.9%	
Pb	Pajarito-Pintura complex	663.3	20.7%	
So	Sotim fine sandy loam	300.6	9.4%	
TOF	Torriorthents, very steep	485.9	15.2%	
TS	Tencee-Sotim association	949.3	29.7%	
Totals for Area of Interest		3,200.1	100.0%	

# OCD: by

500

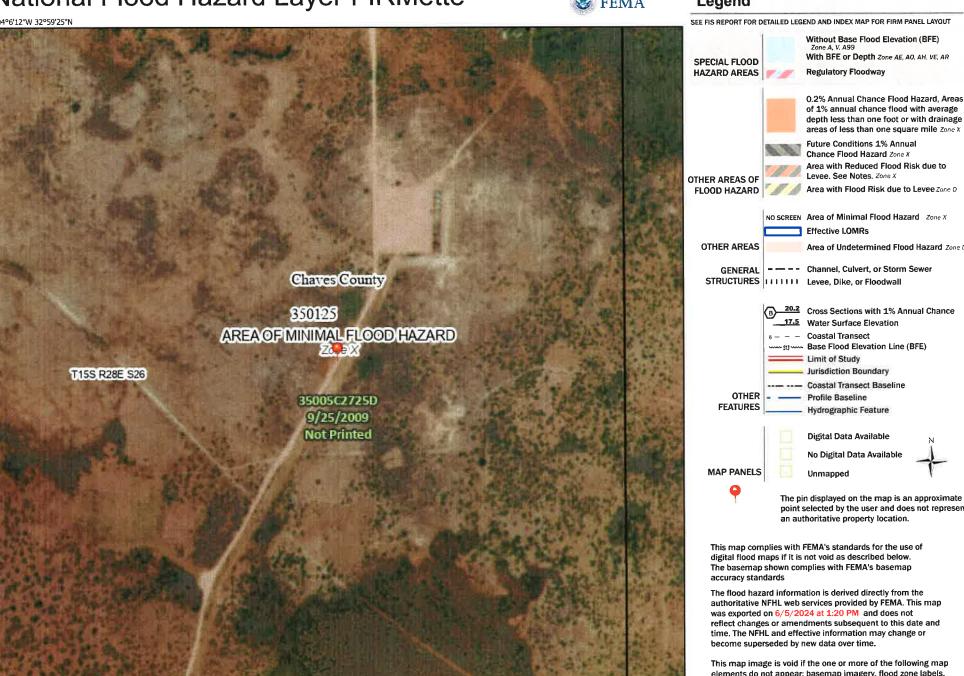
1.000

1.500

## National Flood Hazard Layer FIRMette







Feet

2.000

1:6,000

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

Without Base Flood Elevation (BFE) With BFE or Depth Zone AE, AO, AH, VE, AR Regulatory Floodway 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

Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

Area of Undetermined Flood Hazard Zone D

- - - Channel, Culvert, or Storm Sewer

17.5 Water Surface Elevation ----- Base Flood Elevation Line (BFE) **Jurisdiction Boundary** 

--- Coastal Transect Baseline

Hydrographic Feature

No Digital Data Available



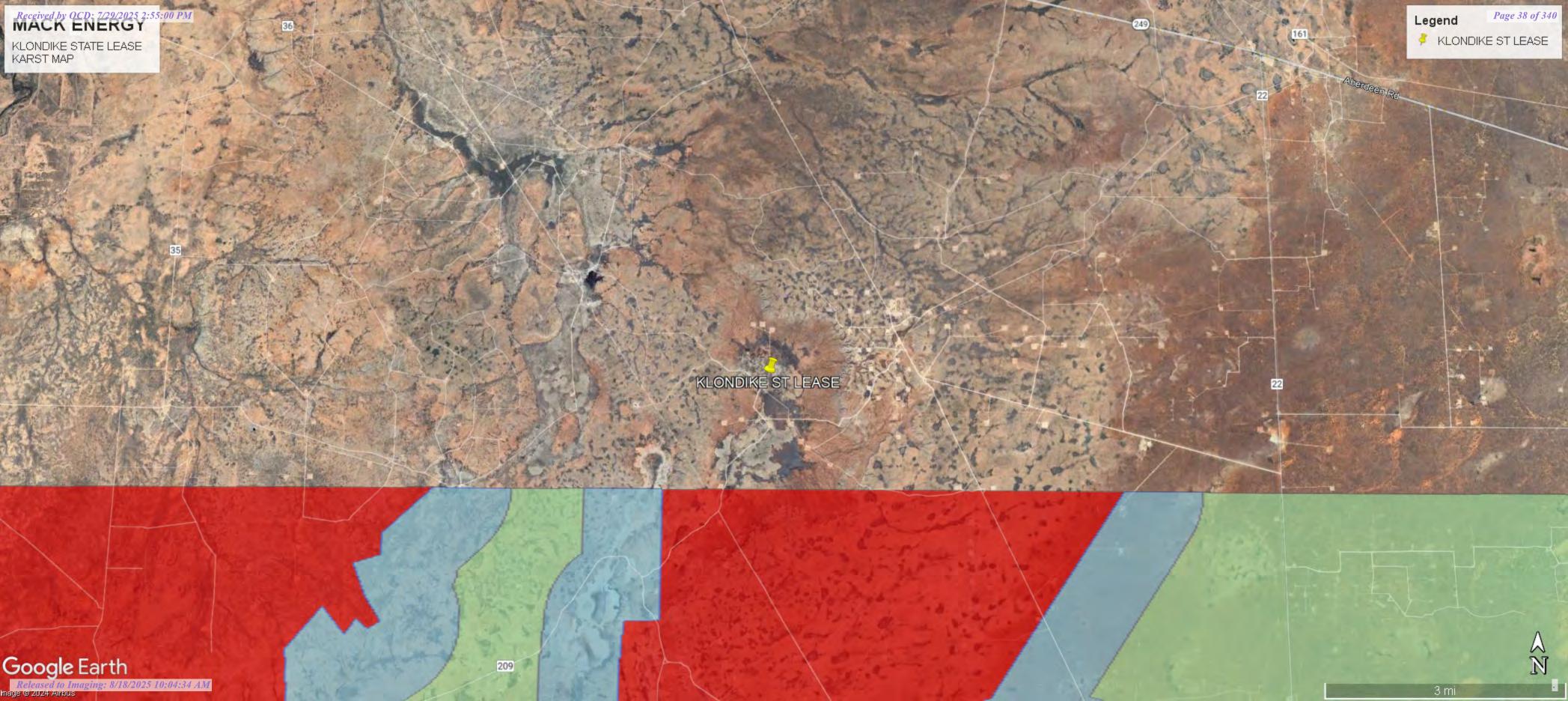
point selected by the user and does not represent an authoritative property location.

digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/5/2024 at 1:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or

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.

104°5'35"W 32°58'55"N





Received by OCD: 7/29/2025 2:55:00 PM Page 40 of 340



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

No wells found.

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

**Easting (X):** 584259.62 Northing (Y): 3650110.47 Radius: 1000

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

Received by OCD: 7/29/2025 2:55:00 PM Page 41 of 340



## 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** 

Subqqq

Code basin County Source 6416 4 Sec Tws Rng

Distance Start Date Finish Date Date

Log File

Depth Depth Well Water Driller License

**POD Number** RA 12428

125 DONALD KUEHN III

Number

CH Shallow 4 2 1 21 15S 28E

580579

3652317

4291 07/28/2016 08/04/2016 08/08/2016

1058

**Record Count: 1** 

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

**Easting (X):** 584259.62

Northing (Y): 3650110.47

Radius: 5000

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

6/13/24 2:22 PM

Received by OCD: 7/29/2025 2:55:00 PM



## 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

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

closed) (quarters are smallest to largest)

(NAD83 UTM in meters) (in feet)

	0.0000)	(-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			(		,		(	/	
POD Number	POD Sub- Code basin Co	ounty Source	q q q 6416 4		Tws Rng	X	Y	Distance Start Date	Log File Finish Date Date	Depth Well	Depth Water Driller	License Number
RA 12428	RA	CH Shallow	421	21	15S 28E	580579	3652317 🌕	4291 07/28/2016	08/04/2016 08/08/2016	170	125 DONALD KUEHN III	1058
RA 12429 POD1	RA	CH Shallow	114	32	15S 28E	579093	3648401 🎒	5442 11/17/2016	11/17/2016 11/28/2016	62	27 EADES, ALAN	1044
RA 09248	RA	CH Shallow	1 4 3	17	15S 28E	578704	3652884*	6209 07/10/1996	07/13/1996 07/25/1996	150	45 RAYMOND ANDERSON	l 1344
RA 10280	RA	CH Shallow	433	17	15S 28E	578501	3652680*	6305 06/20/2002	07/15/2002 04/23/2003	70	40 CARREON, FERNANDO	1490
RA 09059	RA	CH Shallow	244	18	15S 28E	578099	3652875*	6752 11/13/1995	01/15/1996 02/08/1997	110	35 RAYMOND ANDERSON	l 1344
RA 05736	RA	CH Shallow	321	24	15S 27E	575467	3652244*	9047	04/30/1973			
RA 09342	RA	ED Shallow	443	19	16S 29E	582737	3640640*	9592 05/02/1998	05/03/1998 05/08/1998	220	110 DELFORD MARTIN	1064

**Record Count: 7** 

UTMNAD83 Radius Search (in meters):

Easting (X): 584259.62 Northing (Y): 3650110.47 Radius: 10000

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

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

6/13/24 2:22 PM Page 1 of 1 WELLS WITH WELL LOG INFORMATION



## New Mexico Office of the State Engineer **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**Well Tag POD Number**  Q64 Q16 Q4 Sec Tws Rng

Υ X

RA 12428

21 15S 28E

580579

3652317

**Driller License:** 1058 **Driller Company:** KEY'S DRILLING & PUMP SERVICE

**Driller Name:** DONALD KUEHN III

**Drill Start Date:** 07/28/2016

08/08/2016

**Drill Finish Date:** 

Plug Date: 08/04/2016

> Source: Shallow

Log File Date: **Pump Type:** 

**PCW Rcv Date:** 

Pipe Discharge Size:

Estimated Yield: 15 GPM

**Casing Size:** 4.50 **Depth Well:** 170 feet

**Depth Water:** 

125 feet

**Top Bottom Description** Water Bearing Stratifications:

> 140 Sandstone/Gravel/Conglomerate 125 140 160 Sandstone/Gravel/Conglomerate

160

Sandstone/Gravel/Conglomerate

**Casing Perforations:** 

**Top Bottom** 

125



## **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**Well Tag POD Number**  Q64 Q16 Q4 Sec Tws Rng

X

RA 12429 POD1

32 15S 28E

579093

**Driller License: 1044** 

**Driller Company:** EADES WELL DRILLING & PUMP SERVICE

**Driller Name:** EADES, ALAN

**Drill Start Date: 11/17/2016** 

11/28/2016

**Drill Finish Date:** 

Plug Date: 11/17/2016

Shallow

Log File Date: **Pump Type:** 

**PCW Rcv Date:** Pipe Discharge Size:

**Estimated Yield:** 

Source:

**Casing Size:** 5.13 **Depth Well:** 

62 feet

**Depth Water:** 27 feet

Water Bearing Stratifications: **Top Bottom Description** 

27

33 Sandstone/Gravel/Conglomerate

33

Sandstone/Gravel/Conglomerate

**Casing Perforations:** 

Top Bottom

22



## **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number Q64 Q16 Q4 Sec Tws Rng

X

RA 09248 1 4 3 17 15S 28E

578704 3652884\*

4\* 🆷

Driller License: 1344 Driller Company: ANDERSON, RAYMOND

**Driller Name:** RAYMOND ANDERSON

Drill Start Date: 07/10/1996 Drill Finish Date: 07/13/1996 Plug Date:

Log File Date:07/25/1996PCW Rcv Date:Source:ShallowPump Type:Pipe Discharge Size:Estimated Yield: 2 GPMCasing Size:4.50Depth Well:150 feetDepth Water:45 feet

Water Bearing Stratifications: Top Bottom Description

50 60 Sandstone/Gravel/Conglomerate

Casing Perforations: Top Bottom



## **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**Well Tag POD Number**  Q64 Q16 Q4 Sec Tws Rng

X

RA 10280

17 15S 28E 3

578501 3652680\*



Driller License: 1490 **Driller Company:** FERNANDO'S WATER WELL

**Depth Well:** 

**Driller Name:** CARREON, FERNANDO

**Drill Start Date:** 06/20/2002

**Drill Finish Date:** 

Plug Date: 07/15/2002

Source:

Shallow

Log File Date:

04/23/2003

PCW Rcv Date:

**Pump Type: Casing Size:**  **SUBMER** 

Pipe Discharge Size: 1.25

**Depth Water:** 

Estimated Yield: 10 GPM 40 feet

Water Bearing Stratifications:

5.00

**Top Bottom Description** 

70 feet

70 Sandstone/Gravel/Conglomerate 1

Casing Perforations:

Top Bottom



## **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

**Well Tag POD Number** 

Q64 Q16 Q4 Sec Tws Rng

X

RA 09059

18 15S 28E

578099 3652875\*

**Depth Water:** 



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

**Driller Name:** RAYMOND ANDERSON

4.50

**Drill Start Date: 11/13/1995** 

**Drill Finish Date:** 01/15/1996

Plug Date:

Log File Date: 02/08/1997 **PCW Rcv Date:** 

**Depth Well:** 

Source:

Shallow

**Pump Type: Casing Size:**  Pipe Discharge Size:

**Estimated Yield:** 

35 feet

Water Bearing Stratifications:

**Top Bottom Description** 

90

110 feet

60

65 Sandstone/Gravel/Conglomerate

Casing Perforations:

Top Bottom

30

\*UTM location was derived from PLSS - see Help

POD SUMMARY - RA 09059

nmwrrs.ose.state.nm.us/ReportDispatcher?type=PODGHTML&name=PodGroundSummaryHTML.jrxml&basin=RA&nbr=08333&s...



6/13/24, 3:13 PM

## New Mexico Office of the State Engineer

## **Point of Diversion Summary**

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number**  Q64 Q16 Q4 Sec Tws Rng

 $\mathbf{X}$ 

RA 08333

584050

3650815\*

**Driller License:** 

**Driller Company:** 

**Driller Name:** 

**Drill Start Date:** Log File Date:

**Drill Finish Date: PCW Rcv Date:** 

**Plug Date:** Source:

**Pump Type:** 

Pipe Discharge Size:

**Estimated Yield:** 

**Casing Size:** 

Depth Well:

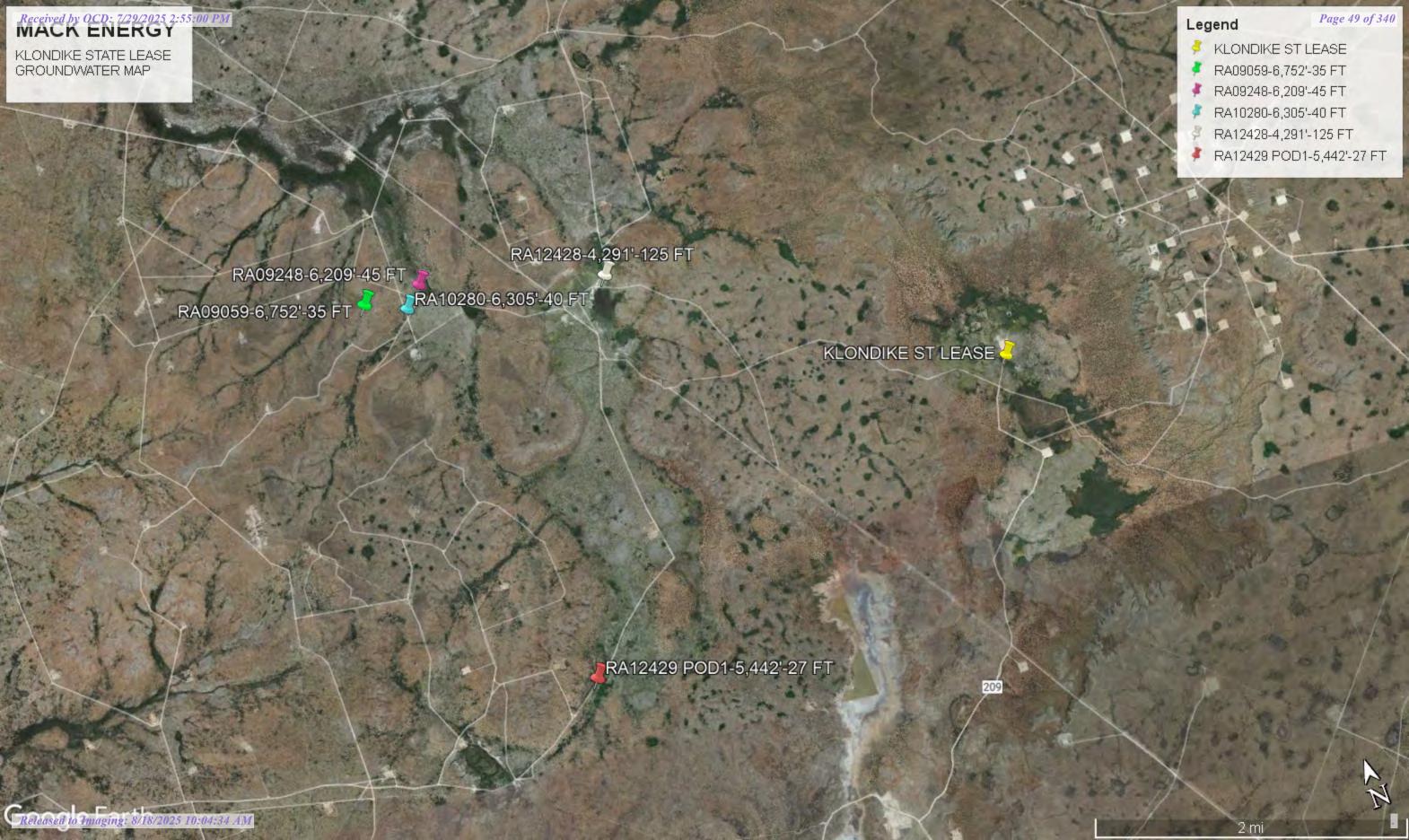
**Depth Water:** 

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, or suitability for any particular purpose of the data.

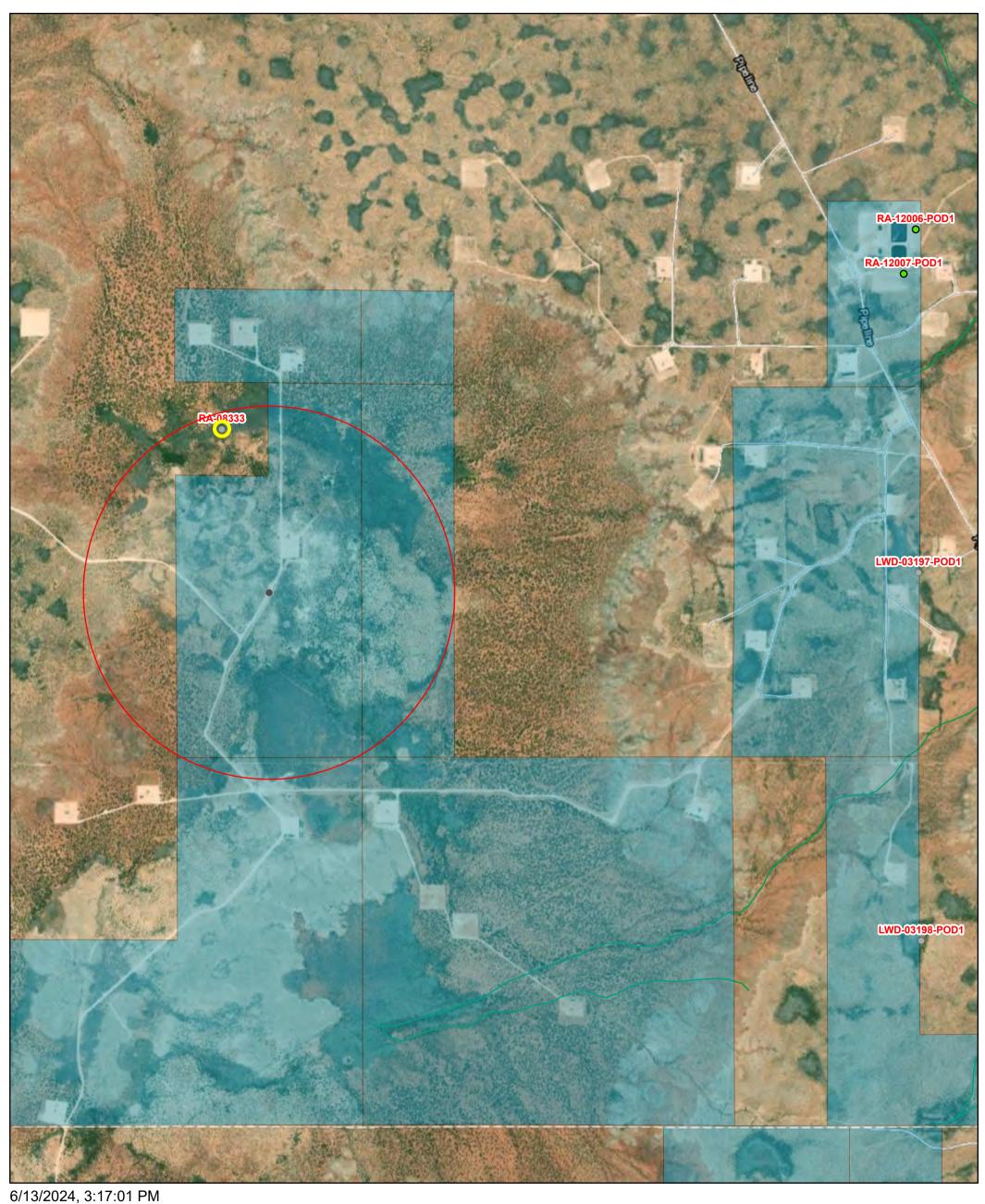
6/13/24 3:13 PM

POINT OF DIVERSION SUMMARY

<sup>\*</sup>UTM location was derived from PLSS - see Help



## **OSE POD Location Map**



GIS WATERS PODs New
Pending
NHD

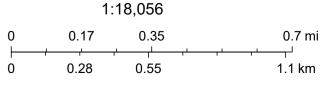
**OSE District Boundary** 

New Mexico State Trust Lands

Both Estates
NHD Flowlines

\_\_\_\_ Artificial Path

Stream River



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

#### **Bratcher, Mike, EMNRD**

From: Matt Buckles <mattbuckles@mec.com>
Sent: Monday, November 20, 2017 3:00 PM

**To:** Weaver, Crystal, EMNRD

**Cc:** Bratcher, Mike, EMNRD; agroves@slo.state.nm.us; Lee Livingston; Jerry Sherrell; Cliff Brunson

**Subject:** Re: C-141 on the Klondike Release 2RP-4446

**Attachments:** Delineation Workplan, Klondike State Lease.pdf; ATT00001.htm

Attached is the site characterization plan and work plan. Please let me know if you have any questions or concerns.

Thanks,

**Matt Buckles** 



PHONE (575) 397-6388 • FAX (575) 397-0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805 E-MAIL: cbrunson@bbcinternational.com

#### **DELINEATION WORKPLAN**

## MACK ENERGY – KLONDIKE STATE LEASE (Leak Date: 10/15/17)

RP # 2RP-4446 API NO. 30-005-64295

This delineation workplan and remediation proposal addresses the release associated with RP # 2RP-4446.

The following information includes:

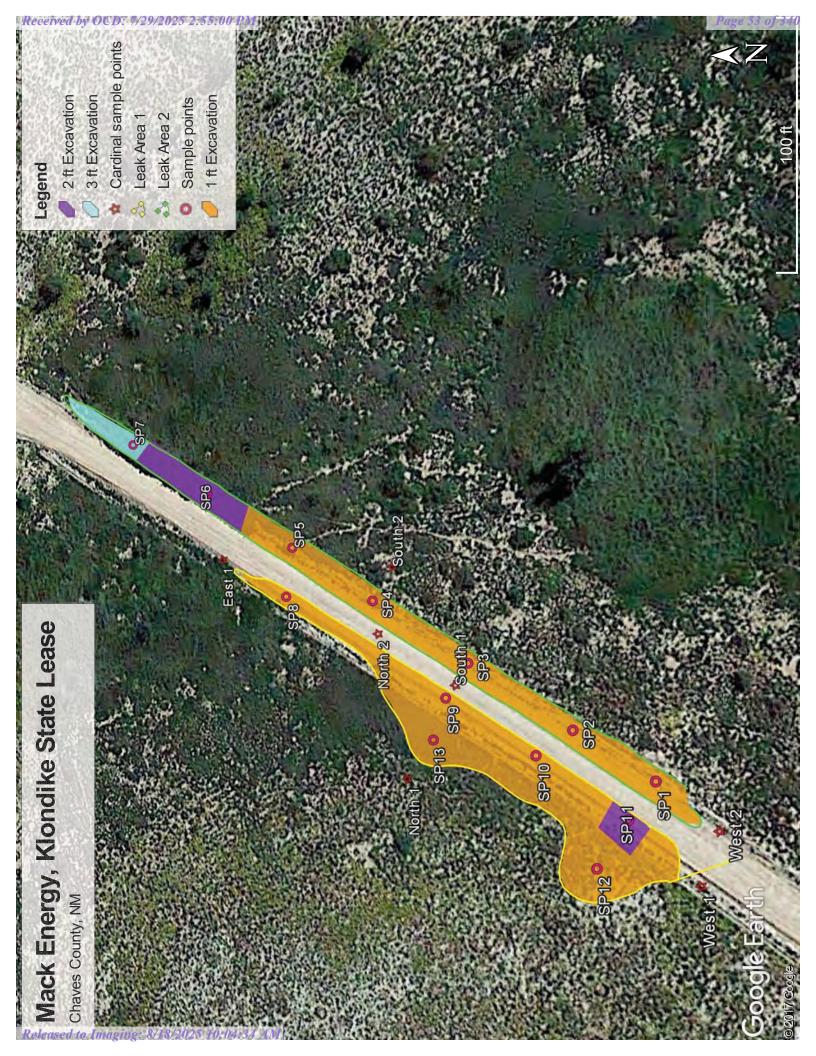
- 1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
- 2. GPS information for sample points and sample methodology
- 3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
- 4. Laboratory analysis results summary table and original laboratory analysis reports
- 5. A copy of the initial C-141
- 6. Potentially other pertinent information as necessary for site specific purposes.

Based on the information included in this package and the NMOCD guidelines, the following remediation is proposed:

Mack Energy will excavate the spill area as depicted on the following site diagram. The area near SP1 – SP5, SP8 – SP10, SP12, and SP13 (yellow shade on diagram) will be excavated to a depth of 1 foot. The area near SP6 and SP11 (purple shade on diagram) will be excavated to a depth of 2 feet. The area near SP7 (blue shade on diagram) will be excavated to a depth of 3 feet.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.



#### Mack Energy, Klondike State Lease

Sample points, hand auger/backhoe

SP1, N 32.98606 W-104.09817

SP2, N 32.98616 W-104.09811

SP3, N 32.98629 W-104.09802

SP4, N 32.98642 W-104.09794

SP5, N 32.98654 W-104.09786

SP6, N 32.98667 W-104.09777

SP7, N 32.98679 W-104.09769

SP8, N 32.98655 W-104.09793

SP9, N 32.98632 W-104.09808

SP10, N 32.98620 W-104.09815

SP11, N 32.98609 W-104.09822

SP12, N 32.98613 W-104.09829

SP13, N 32.98634 W-104.09814

N1, N 32.98637 W-104.09820

E1, N 32.98664 W-104.09788

W1, N 32.98601 W-104.09830

S1, N 32.98631 W-104.09806

N2, N 32.98641 W-104.09799

E2, N 32.98693 W-104.09758

W2, N 32.98599 W-104.09822

S2, N 32.98639 W-104.09788



## New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

No records found.

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

Easting (X): 584061 **Northing (Y):** 3650003 **Radius:** 1700

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

10/23/17 12:25 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

0	Public Land Survey System (PLSS)           Q64:         Q16:         1         Q4:         4         Sec:         26         Tws:         15S         Rng:         28E
0	State Plane Coordinate System - NAD27  X: 0 ft Y: 0 ft Zone:
0	State Plane Coordinate System - NAD83  X: 0 ft Y: 0 ft Zone:
0	Degrees/Minutes/Seconds  Longitude (X):  Degrees: 0 ° Minutes: 0 ' Seconds: 0 "  Latitude (Y):  Degrees: 0 ° Minutes: 0 ' Seconds: 0 "
0	UTM - NAD27  Easting (X): 0 mtrs Northing (Y): 0 mtrs Zone:
	SUBMIT
	All Conversion Results are displayed as NAD 1983 UTM Zone 13  Easting (X): 584061.0 mtrs Northing (Y): 3650003.0 mtrs  ~~ Please keep screen open to copy UTM values for Reports. ~~

# Laboratory Analytical Results Summary

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9	

		Sample ID SP8 @ 1'	SP8 @ 1'	SP8@2'	SP8@7'	SP8 @ 12'
Analyte	Method	Date	10/18/17	10/25/17	10/25/17	10/25/17
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	e/u	u/a	e/u
Toluene	BTEX 8021B		<0.050	e/u	u/a	u/a
Ethylbenzene BTEX 8021B	BTEX 8021B		<0.050	e/u	u/a	e/u
Total Xylenes BTEX 8021B	BTEX 8021B		<0.150	n/a	n/a	u/a
Total BTEX	BTEX 8021B		<0.300	e/u	e/u	u/a
Chloride	SM4500CI-B		7730	32	48	48
GRO	TPH 8015M		<10.0	u/a	u/a	u/a
DRO	TPH 8015M		<10.0	u/a	u/a	u/a
EXT DRO	<b>TPH 8015M</b>		<10.0	e/u	u/a	e/u

		Sample ID	SP9 @ 1'	Sample ID SP9 @ 1' SP9 @ 2'	SP9 @ 7'	SP9 @ 12'
Analyte Method	po	Date	10/18/17	10/25/17	10/25/17	10/25/17
			mg/kg	mg/kg	mg/kg	mg/kg
Chloride SM4500CI-B	OCI-B		8400	160	48	48

		Sample ID	Sample ID SP10 @ 1'	SP10 @ 2'		SP10 @ 7' SP10 @ 12'
Analyte	Method	Date	10/18/17	10/25/17	10/25/17	10/25/17
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene BTEX 8021B	BTEX 8021B		<0.050	n/a	u/a	n/a
Total Xylenes BTEX 8021B	BTEX 8021B		<0.150	n/a	u/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500CI-B		11200	16	32	32
GRO	TPH 8015M		<10.0	n/a	e/u	n/a
DRO	TPH 8015M		<10.0	n/a	u/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	e/u	n/a

10/25/17 10/25/17 mg/kg mg/kg 192			Sample ID	SP11@1	Sample ID SP11@1' SP11@2' SP11@3' SP11@8' SP11@13'	SP11 @ 3'	SP11@8	SP11 @ 13
SM4500Cl-B 10600 1140 192	Analyte	Method	Date	10/18/17	10/25/17	10/25/17	10/25/17	10/25/17
SM4500CI-B 10600 1140 192				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	Chloride	SM4500CI-B		10600	1140	192	32	32

		Sample ID	SP12@1	Sample ID SP12@1' SP12@2' SP12@7' SP12@12'	SP12 @ 7	SP12 @ 12'
Analyte	Method	Date	10/18/17	10/25/17	10/25/17	10/25/17
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xylenes BTEX 8021B	BTEX 8021B		<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500CI-B		0006	16	<16.0	<16.0
GRO	TPH 8015M		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample ID	SP1 @ 1'	SP1@2	SP1@3	SP1 @8.	SP1@13
Analyte	Method	Date	10/18/17	10/24/17	10/24/17	10/24/17	10/24/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		050.0>	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a
Total Xylenes	otal Xylenes BTEX 8021B		<0.150	u/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		1960	224	336	112	112
GRO	<b>TPH 8015M</b>		<10.0	n/a	n/a	n/a	n/a
DRO	<b>TPH 8015M</b>		<10.0	u/a	n/a	n/a	n/a
EXT DRO	<b>TPH 8015M</b>		<10.0	e/u	n/a	n/a	n/a

		Sample ID SB2 @ 1.	SD2 @ 1'	.6 @ 6dS	.€ @ 6dS	SD2 @ 8'	SD2 @ 13'
		Sample ID	352 @ 1		3F2 (2) 3	3F 2 (20 0	3F2 @ 13
Analyte	Method	Date	10/18/17	10/24/17	10/24/17	10/24/17	10/24/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B		8530	526	336	128	112
		Sample ID SP3 @ 1'	SP3 @ 1.	SP3@2	SP3@3		SP3 @8' SP3 @ 13'
Analyte	Method	Date	10/18/17	10/24/17	10/24/17	10/24/17	10/24/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B		12500	224	160	144	192

		Sample ID	SP4 @ 1.	SP4@2'	SP4@7"	SP4 @ 12.
Analyte	Method	Date	10/18/17	10/24/17	10/24/17	10/24/17
			mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xylenes BTEX 8021B	BTEX 8021B		<0.150	n/a	u/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	u/a	n/a
Chloride	SM4500CI-B		0863	64	96	96
GRO	<b>TPH 8015M</b>		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	e/u	n/a
EXT DRO	TPH 8015M		<10.0	n/a	e/u	n/a
						l

		Sample ID SP5 @ 1'	SP5 @ 1'	SP5@2'	SP5@7"	SP5 @ 12'
Analyte	Method	Date	10/18/17	10/24/17	10/24/17	10/24/17
			mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B		0009	64	96	32

		Sample ID Show	920	3000	3F0@2 3F0@3	310(0)	310	
Analyte	Method	Date	10/18/17	10/24/17	10/24/17	10/24/17	10/24/17	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Chloride	SM4500CI-B		8400	2160	16	32	16	
		Sample ID	SP7 @ 1'	SP7@2'	SP7@3'	SP7 @ 4'	SP7 @ 9'	SP7 @ 14'
Analyte	Method	Date	10/18/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	e/u	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	u/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	u/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500CI-B		8660	2360	1800	80	32	16
GRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a	n/a
EXT DRO	TPH 8015M		<10.0	e/u	u/a	n/a	e/u	n/a

		Sample ID	N2 @ Surface
Analyte	Method	Date	10/18/17
			mg/kg
Benzene	BTEX 8021B	IB	090'0>
Toluene	BTEX 8021B	B	090'0>
Ethylbenz	Ethylbenz BTEX 8021B	B	<0.050
Total Xyle	Fotal Xyle BTEX 8021B	IB	<0.150
Total BTE	Fotal BTE BTEX 8021B	IB	<0.300
Chloride	SM4500CI-B	ф	08
GRO	<b>TPH 8015M</b>	5	<10.0
DRO	TPH 8015M	N	<10.0
<b>EXT DRO</b>	EXT DRO TPH 8015M	N	<10.0

		Sample ID	E2 @ Surface
Analyte	Method	Date	10/18/17
			mg/kg
Chloride	SM4500CI-B	в	64

		Sample ID	W2 @ Surface
Analyte	Method	Date	10/18/17
			mg/kg
Chloride	SM4500CI-B	ф	160

		Sample ID	S2 @ Surface
Analyte	Method	Date	10/18/17
			mg/kg
Benzene	BTEX 8021B	B	<0.050
Toluene	BTEX 8021B	B	<0.050
Ethylbenz	Ethylbenz BTEX 8021B	IB	<0.050
Total Xyle	otal Xyle BTEX 8021B	IB	<0.150
Total BTE	otal BTE BTEX 8021B	B	<0.300
Chloride	SM4500CI-B	ф	208
GRO	TPH 8015M	<b>N</b>	<10.0
DRO	TPH 8015M	N	<10.0
<b>EXT DRO</b>	<b>EXT DRO</b> TPH 8015M	N	<10.0

		Sample ID	Sample ID   SP13 @ 1'   SP13 @ 2'   SP13 @ 7'   SP13 @ 12'	SP13 @ 2'	SP13 @ 7"	SP13 @ 12
Analyte	Method	Date	10/18/17	10/25/17	10/25/17	10/25/17
			mg/kg	mg/kg	mg/kg	mg/kg
Chloride	SM4500CI-B		13600	112	192	176

			@ IN
		Sample ID	Surface
Analyte	Method	Date	10/18/17
			mg/kg
Benzene	BTEX 8021B		<0.050
Toluene	BTEX 8021B		<0.050
Ethylbenzene	BTEX 8021B		<0.050
Total Xylenes	BTEX 8021B		<0.150
Total BTEX	BTEX 8021B		<0.300
Chloride	SM4500CI-B		64
GRO	TPH 8015M		<10.0
DRO	TPH 8015M		<10.0
EXT DRO	TPH 8015M		<10.0

Analyte Method Chloride SM4500CI-B	Date -B	10/18/17 mg/kg <b>80</b>
	84	mg/kg 80
	-B	80
		@ P/W
	Clolames	Surface
	ognilone ID	Sulace
Analyte Method	l Date	10/18/17
		mg/kg
Chloride SM4500CI-B	-B	208

Analyte	Method	Date	10/18
			/6m
Chloride	SM4500CI-B		8
			W
		Sample ID	Surf
Analyte	Method	Date	10/18
			/bu
Chloride	SM4500CI-R		20

Sample ID   Surface				
### Method Date   Date			Sample ID	S1@ Surface
### BTEX 8021B	Analyte	Method	Date	10/18/17
### BTEX 8021B #### BTEX 8021B ######### BTEX 8021B ####################################				mg/kg
BTEX 8021B   Steps   Steps	Benzene	BTEX 8021B		<0.050
Xylenes         BTEX 8021B           STEX         BTEX 8021B           BTEX         BTEX 8021B           ride         BTEX 8021B           SM4500Cl-B         TPH 8015M           TPH 8015M         TPH 8015M           DRO         TPH 8015M	Toluene	BTEX 8021B		<0.050
Xylenes         BTEX 8021B           BTEX         BTEX 8021B           Ide         SIM4500Cl-B           TPH 8015M         TPH 8015M           DRO         TPH 8015M	Ethylbenzene	BTEX 8021B		<0.050
New Year   New Year	<b>Total Xylenes</b>	BTEX 8021B		<0.150
Ide         SM4500Cl-B           TPH 8015M         TPH 8015M           TPH 8015M         TPH 8015M	Total BTEX	BTEX 8021B		<0.300
TPH 8015M TPH 8015M DRO TPH 8015M	Chloride	SM4500CI-B		802
TPH 8015M TPH 8015M	GRO	TPH 8015M		<10.0
TPH 8015M	DRO	TPH 8015M		<10.0
	EXT DRO	TPH 8015M		<10.0



November 02, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: KLONDIKE STATE LEASE

Enclosed are the results of analyses for samples received by the laboratory on 10/26/17 17:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keene

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Applymed By MC

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 1 @ 1' (H702951-01)

DTEV 0021D

BTEX 8021B	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/30/2017	ND	1.98	99.1	2.00	1.64	
Toluene*	<0.050	0.050	10/30/2017	ND	2.00	100	2.00	0.412	
Ethylbenzene*	<0.050	0.050	10/30/2017	ND	2.06	103	2.00	0.883	
Total Xylenes*	<0.150	0.150	10/30/2017	ND	6.26	104	6.00	1.13	
Total BTEX	<0.300	0.300	10/30/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 72-148							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1960	16.0	10/31/2017	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
DRO >C10-C28	<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
EXT DRO >C28-C36	<10.0	10.0	10/29/2017	ND					
Surrogate: 1-Chlorooctane	83.8	% 28.3-16-	4						
Surrogate: 1-Chlorooctadecane	86.9	% 34.7-15	7						

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#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/24/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 1 @ 2' (H702951-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	10/31/2017	ND	448	112	400	0.00	
Sample ID: SP 1 @ 3' (H7	02951-03)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	10/31/2017	ND	448	112	400	0.00	
Sample ID: SP 1 @ 8' (H7	02951-04)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/31/2017	ND	448	112	400	0.00	
Sample ID: SP 1 @ 13' (H	702951-05)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/31/2017	ND	448	112	400	0.00	
Sample ID: SP 2 @ 1' (H7	02951-06)								
Chloride, SM4500Cl-B	-	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8530	16.0	10/31/2017	ND	448	112	400	0.00	

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#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/24/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 2 @ 2' (H702951-07)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 2 @ 3' (H702	2951-08)								
Chloride, SM4500Cl-B	mg	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 2 @ 8' (H702	2951-09)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 2 @ 13' (H70	02951-10)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 3 @ 1' (H702	2951-11)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12500	16.0	10/31/2017	ND	432	108	400	7.69	

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#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/24/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 3 @ 2' (H702951-12)

mg/kg		Analyzed By: AC						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
224	16.0	10/31/2017	ND	432	108	400	7.69	
2951-13)								
mg/kg		Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
160	16.0	10/31/2017	ND	432	108	400	7.69	
2951-14)								
mg/kg		Analyzed By: AC						
mg,	/kg	Analyze	d By: AC					
Result	Reporting Limit	Analyze Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
		-	<u> </u>	BS 432	% Recovery	True Value QC 400	RPD 7.69	Qualifier
Result	Reporting Limit	Analyzed	Method Blank		,	·		Qualifier
Result	Reporting Limit	Analyzed 10/31/2017	Method Blank		,	·		Qualifier
Result 144 02951-15)	Reporting Limit	Analyzed 10/31/2017	Method Blank ND		,	·		Qualifier
	Result 224 2951-13) mg, Result 160 2951-14)	Result Reporting Limit 224 16.0  2951-13)  mg/kg  Result Reporting Limit 160 16.0  2951-14)	Result         Reporting Limit         Analyzed           224         16.0         10/31/2017           2951-13)         mg/kg         Analyzed           Result         Reporting Limit         Analyzed           160         16.0         10/31/2017           2951-14)         2951-14)	Result         Reporting Limit         Analyzed         Method Blank           224         16.0         10/31/2017         ND           2951-13)         mg/kg         Analyzed By: AC           Result         Reporting Limit         Analyzed         Method Blank           160         16.0         10/31/2017         ND           2951-14)	Result Reporting Limit Analyzed Method Blank BS  224 16.0 10/31/2017 ND 432  2951-13)  mg/kg Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS  160 16.0 10/31/2017 ND 432  2951-14)	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           224         16.0         10/31/2017         ND         432         108           2951-13)           mg/kg         Analyzed By: AC           Result         Reporting Limit         Analyzed Method Blank         BS         % Recovery           160         16.0         10/31/2017         ND         432         108           2951-14)         Colspan="6">Colspa	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           224         16.0         10/31/2017         ND         432         108         400           2951-13)           mg/kg         Analyzed By: AC           Result         Reporting Limit         Analyzed Method Blank         BS         % Recovery         True Value QC           160         16.0         10/31/2017         ND         432         108         400	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           224         16.0         10/31/2017         ND         432         108         400         7.69           2951-13)           mg/kg         Analyzed By: AC           Result         Reporting Limit         Analyzed Method Blank         BS         % Recovery         True Value QC         RPD           160         16.0         10/31/2017         ND         432         108         400         7.69

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#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: MACK ENERGY - CHAVES CO NM

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#### Sample ID: SP 4 @ 1' (H702951-16)

RTFY 8021R

Result <0.050 <0.050 <0.050 <0.050 <0.150 <0.300	Reporting Limit  0.050  0.050  0.050  0.150  0.300	Analyzed 10/30/2017 10/30/2017 10/30/2017 10/30/2017 10/30/2017	Method Blank  ND  ND  ND  ND  ND	BS 1.98 2.00 2.06 6.26	% Recovery 99.1 100 103	True Value QC 2.00 2.00 2.00	RPD 1.64 0.412 0.883	Qualifier
<0.050 <0.050 <0.150 <0.300	0.050 0.050 0.150	10/30/2017 10/30/2017 10/30/2017	ND ND ND	2.00 2.06	100 103	2.00	0.412	
<0.050 <0.150 <0.300	0.050 0.150	10/30/2017	ND ND	2.06	103			
<0.150 <0.300	0.150	10/30/2017	ND			2.00	0.883	
<0.300				6.26	104			
	0.300	10/30/2017			104	6.00	1.13	
		-,,	ND					
99.5	% 72-148							
mg	/kg	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
8930	16.0	10/31/2017	ND	432	108	400	7.69	
mg	/kg	Analyzed By: MS						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
<10.0	10.0	10/29/2017	ND					
87.0	% 28.3-164	4						
91.5	% 34.7-157	7						
	Result  8930  mg  Result  <10.0  <10.0  <87.0	99.5 % 72-148 mg/ky  Result Reporting Limit  8930 16.0 mg/ky  Result Reporting Limit  <10.0 10.0  <10.0 10.0  <10.0 10.0  <87.0 % 28.3-16.0	99.5 % 72-148  mg/ky Analyzed  Result Reporting Limit Analyzed  8930 16.0 10/31/2017  mg/ky Analyzed  Result Reporting Limit Analyzed  <10.0 10.0 10/29/2017  <10.0 10.0 10/29/2017  <10.0 10.0 10/29/2017  <87.0 % 28.3-164	99.5 % 72-148  mg/ky Analyzed By: AC  Result Reporting Limit Analyzed Method Blank  8930 16.0 10/31/2017 ND  mg/ky Analyzed By: MS  Result Reporting Limit Analyzed Method Blank  <10.0 10.0 10/29/2017 ND  <10.0 10.0 10/29/2017 ND  <10.0 10.0 10/29/2017 ND  <10.0 10.0 10/29/2017 ND  <87.0 % 28.3-164	99.5 %       72-148         mg/ky       Analyzed By: AC         Result       Reporting Limit       Analyzed By: MS         Result       Reporting Limit       Analyzed Method Blank       BS         <10.0	99.5 % 72-148  mg   kg	99.5 % 72-148         mg/ky       Analyzed By: AC         Result Reporting Limit Analyzed Nethod Blank BS % Recovery True Value QC         8930 16.0 10/31/2017 ND 432 108 400         mg/ky       Analyzed By: MS         Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC         <10.0 10.0 10/29/2017 ND 188 93.8 200	99.5 % 72-148         mg/ky       Analyzed By: AC         Result Reporting Limit Analyzed Nethod Blank BS % Recovery True Value QC RPD 10/31/2017 ND 432 108 400 7.69         mg/ky       Analyzed By: MS         Result Reporting Limit Analyzed Nethod Blank BS % Recovery True Value QC RPD 10.0 10.0 10/29/2017 ND 188 93.8 200 3.24         <10.0 10.0 10/29/2017 ND 200 100 200 5.92

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Celeg D. Freene



#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/24/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 4 @ 2' (H702951-17)

Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 4 @ 7' (H70	2951-18)								
Chloride, SM4500Cl-B	mg	mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 4 @ 12' (H70	02951-19)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 5 @ 1' (H70)	2951-20)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 5 @ 2' (H70)	2951-21)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/31/2017	ND	432	108	400	7.69	

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Celeg D. Kreine

Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/24/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 5 @ 7' (H702951-22)

Chloride, SM4500Cl-B	mg	mg/kg		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 5 @ 12' (H	702951-23)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 6 @ 1' (H7	02951-24)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 6 @ 2' (H7	02951-25)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2160	16.0	10/31/2017	ND	432	108	400	7.69	
Sample ID: SP 6 @ 3' (H7	02951-26)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/31/2017	ND	432	108	400	7.69	

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#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/24/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

Sample ID: SP 6 @ 8' (H702951-27)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 11/01/2017 ND 416 400 3.77 32.0 16.0 104

Sample ID: SP 6 @ 13' (H702951-28)

Chloride, SM4500Cl-B Analyzed By: AC mg/kg Reporting Limit Analyzed BS True Value QC RPD Qualifier Analyte Result Method Blank % Recovery Chloride 16.0 16.0 11/01/2017 416 400 3.77 ND 104

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#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 7 @ 1' (H702951-29)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/31/2017	ND	1.91	95.4	2.00	2.78	QR-03
Toluene*	<0.050	0.050	10/31/2017	ND	1.92	95.9	2.00	1.31	
Ethylbenzene*	< 0.050	0.050	10/31/2017	ND	1.94	96.9	2.00	1.92	
Total Xylenes*	<0.150	0.150	10/31/2017	ND	6.18	103	6.00	2.13	
Total BTEX	<0.300	0.300	10/31/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 72-148	,						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8660	16.0	11/01/2017	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
DRO >C10-C28	<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
EXT DRO >C28-C36	<10.0	10.0	10/29/2017	ND					
Surrogate: 1-Chlorooctane	79.6	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	83.6	% 34.7-15	7						

#### Cardinal Laboratories \*=Accredited Analyte

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#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/24/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 7 @ 2' (H702951-30)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	2360	16.0	11/01/2017	ND	416	104	400	3.77	
Sample ID: SP 7 @ 3' (H7	702951-31)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	1800	16.0	11/01/2017	ND	416	104	400	3.77	
Sample ID: SP 7 @ 4' (H7	702951-32)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	80.0	16.0	11/01/2017	ND	416	104	400	3.77	
Sample ID: SP 7 @ 9' (H7	702951-33)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	32.0	16.0	11/01/2017	ND	416	104	400	3.77	
Sample ID: SP 7 @ 14' (H	1702951-34)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Oualifie

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/01/2017	ND	416	104	400	3.77	

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Celeg & Keine

Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: Sampling Type: Soil 11/02/2017

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 8 @ 1' (H702951-35)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/31/2017	ND	1.91	95.4	2.00	2.78	
Toluene*	<0.050	0.050	10/31/2017	ND	1.92	95.9	2.00	1.31	
Ethylbenzene*	<0.050	0.050	10/31/2017	ND	1.94	96.9	2.00	1.92	
Total Xylenes*	<0.150	0.150	10/31/2017	ND	6.18	103	6.00	2.13	
Total BTEX	<0.300	0.300	10/31/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 72-148	,						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7730	16.0	11/01/2017	ND	416	104	400	3.77	
TPH 8015M	mg,	'kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
DRO >C10-C28	<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
EXT DRO >C28-C36	<10.0	10.0	10/29/2017	ND					
Surrogate: 1-Chlorooctane	88.7	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	91.9	% 34.7-15	7						

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Celeg D. Keine



#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/25/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

#### Sample ID: SP 8 @ 2' (H702951-36)

mg/kg		Analyzed By: AC						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
32.0	16.0	11/01/2017	ND	416	104	400	3.77	
2951-37)								
mg	/kg	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
48.0	16.0	11/01/2017	ND	416	104	400	3.77	
)2951-38)								
mg	/kg	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
48.0	16.0	11/01/2017	ND	416	104	400	3.77	
2951-39)								
mg	/kg	Analyze	Analyzed By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
8400	16.0	11/01/2017	ND	416	104	400	3.77	
2951-40)								
mg	/kg	Analyze	d By: AC					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
160	16.0	11/01/2017	ND	416	104	400	3.77	
	32.0 2951-37) mg Result 48.0 2951-38) mg Result 48.0 2951-39) mg Result 8400 2951-40) mg Result	32.0 16.0  2951-37)  mg/kg  Result Reporting Limit  48.0 16.0  2951-38)  mg/kg  Result Reporting Limit  48.0 16.0  2951-39)  mg/kg  Result Reporting Limit  8400 16.0  2951-40)  mg/kg  Result Reporting Limit  Reporting Limit  Reporting Limit  Reporting Limit  Reporting Limit	32.0 16.0 11/01/2017  2951-37)  mg/kg  Result Reporting Limit Analyzed  48.0 16.0 11/01/2017  2951-38)  mg/kg  Result Reporting Limit Analyzed  48.0 16.0 11/01/2017  2951-39)  mg/kg  Result Reporting Limit Analyzed  48.0 16.0 11/01/2017  2951-39)  mg/kg  Analyze  Result Reporting Limit Analyzed  48.0 16.0 11/01/2017  Analyzed  Result Reporting Limit Analyzed  8400 16.0 11/01/2017	32.0 16.0 11/01/2017 ND  2951-37)  mg/ky  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank  48.0 16.0 11/01/2017 ND  2951-38)  mg/ky  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank  48.0 16.0 11/01/2017 ND  2951-39)  mg/ky  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank  48.0 16.0 11/01/2017 ND  2951-40)  mg/ky  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank  8400 16.0 11/01/2017 ND  2951-40)  mg/ky  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank  Analyzed By: AC	32.0 16.0 11/01/2017 ND 416  2951-37)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS  48.0 16.0 11/01/2017 ND 416  2951-38)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS  48.0 16.0 11/01/2017 ND 416  2951-39)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS  48.0 16.0 11/01/2017 ND 416  2951-40)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS  8400 16.0 11/01/2017 ND 416	32.0 16.0 11/01/2017 ND 416 104  2951-37)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery  48.0 16.0 11/01/2017 ND 416 104  2951-38)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery  48.0 16.0 11/01/2017 ND 416 104  2951-39)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery  48.0 16.0 11/01/2017 ND 416 104  2951-40)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery  8400 16.0 11/01/2017 ND 416 104  2951-40)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery  8400 16.0 11/01/2017 ND 416 104	32.0 16.0 11/01/2017 ND 416 104 400  2951-37)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC  48.0 16.0 11/01/2017 ND 416 104 400  202951-38)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC  48.0 16.0 11/01/2017 ND 416 104 400  2951-39)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC  48.0 16.0 11/01/2017 ND 416 104 400  2951-40)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC  8400 16.0 11/01/2017 ND 416 104 400  2951-40)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC  4800 400 400	32.0 16.0 11/01/2017 ND 416 104 400 3.77  2951-37)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 48.0 16.0 11/01/2017 ND 416 104 400 3.77  202951-38)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 48.0 16.0 11/01/2017 ND 416 104 400 3.77  202951-39)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 48.0 16.0 11/01/2017 ND 416 104 400 3.77  202951-39)  mg/kg  Analyzed By: AC  Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 416 104 400 3.77  202951-40)  mg/kg  Analyzed By: AC

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#### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/25/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

Sample ID: SP 9 @ 7' (H702951-41)

Chloride, SM4500Cl-B mg/kg Analyzed By: AC Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 48.0 11/01/2017 ND 416 400 16.0 104 3.77

Sample ID: SP 9 @ 12' (H702951-42)

Chloride, SM4500Cl-B Analyzed By: AC mg/kg Reporting Limit Analyzed BS True Value QC RPD Qualifier Analyte Result Method Blank % Recovery Chloride 48.0 16.0 11/01/2017 416 400 3.77 ND 104

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Celey D. Keine



### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: Sampling Type: Soil 11/02/2017

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

### Sample ID: SP 10 @ 1' (H702951-43)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/31/2017	ND	1.91	95.4	2.00	2.78	
Toluene*	<0.050	0.050	10/31/2017	ND	1.92	95.9	2.00	1.31	
Ethylbenzene*	<0.050	0.050	10/31/2017	ND	1.94	96.9	2.00	1.92	
Total Xylenes*	<0.150	0.150	10/31/2017	ND	6.18	103	6.00	2.13	
Total BTEX	<0.300	0.300	10/31/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 72-148	,						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11200	16.0	11/01/2017	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
DRO >C10-C28	<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
EXT DRO >C28-C36	<10.0	10.0	10/29/2017	ND					
Surrogate: 1-Chlorooctane	92.0	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	93.6	% 34.7-15	7						

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### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/25/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

### Sample ID: SP 10 @ 2' (H702951-44)

Chloride, SM4500CI-B	mg	mg/kg		ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/01/2017	ND	416	104	400	3.77	
Sample ID: SP 10 @ 7' (H	H702951-45)								
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/01/2017	ND	416	104	400	3.77	
Sample ID: SP 10 @ 12'	(H702951-46)								
Chloride, SM4500CI-B	mg	mg/kg		ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/01/2017	ND	416	104	400	3.77	
Sample ID: SP 11 @ 1' (F	1702951-47)								
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10600	16.0	11/01/2017	ND	432	108	400	0.00	
Sample ID: SP 11 @ 2' (H	1702951-48)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1140	16.0	11/01/2017	ND	432	108	400	0.00	QM-07

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Celeg D. Keine



### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/25/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

Sample ID: SP 11 @ 3' (H702951-49)

Chloride, SM4500Cl-B mg/kg Analyzed By: HM Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 192 11/01/2017 432 400 0.00 16.0 ND 108

Sample ID: SP 11 @ 8' (H702951-50)

Chloride, SM4500Cl-B Analyzed By: HM mg/kg Analyzed BS True Value QC RPD Analyte Result Reporting Limit Method Blank Qualifier % Recovery Chloride 32.0 16.0 11/01/2017 432 400 0.00 ND 108

Sample ID: SP 11 @ 13' (H702951-51)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/01/2017	ND	432	108	400	0.00	

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Celleg T. Freene



### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MS

Project Location: MACK ENERGY - CHAVES CO NM

mg/kg

### Sample ID: SP 12 @ 1' (H702951-52)

BTEX 8021B

	9,	9	7	,					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/31/2017	ND	1.91	95.4	2.00	2.78	
Toluene*	<0.050	0.050	10/31/2017	ND	1.92	95.9	2.00	1.31	
Ethylbenzene*	<0.050	0.050	10/31/2017	ND	1.94	96.9	2.00	1.92	
Total Xylenes*	<0.150	0.150	10/31/2017	ND	6.18	103	6.00	2.13	
Total BTEX	<0.300	0.300	10/31/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 72-148	,						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9000	16.0	11/01/2017	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
DRO >C10-C28	<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
EXT DRO >C28-C36	<10.0	10.0	10/29/2017	ND					
Surrogate: 1-Chlorooctane	90.5	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	96.1	% 34.7-15	7						

### Cardinal Laboratories \*=Accredited Analyte

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### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/25/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/01/2017	ND	432	108	400	0.00	
Sample ID: SP 12 @ 7' (H	702951-54)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/01/2017	ND	432	108	400	0.00	
Sample ID: SP 12 @ 12' (	H702951-55)								
	mg	/kg	Analyze	d By: HM					
Chloride, SM4500Cl-B									
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

Chloride, SM4500Cl-B mg/kg			Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13600	16.0	11/01/2017	ND	432	108	400	0.00	

### Sample ID: SP 13 @ 2' (H702951-57)

Chloride, SM4500Cl-B	mg/kg		Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	11/01/2017	ND	432	108	400	0.00	

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### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/25/2017

Reported: Sampling Type: Soil 11/02/2017

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

Sample ID: SP 13 @ 7' (H702951-58)

Chloride, SM4500Cl-B mg/kg Analyzed By: HM Analyte Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD Qualifier Chloride 192 16.0 11/01/2017 ND 432 108 400 0.00

Sample ID: SP 13 @ 12' (H702951-59)

Chloride, SM4500Cl-B	mg/kg			d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/01/2017	ND	432	108	400	0.00	

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### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Applyzod By: MC

Project Location: MACK ENERGY - CHAVES CO NM

### Sample ID: N1 @ SURFACE (H702951-60)

RTFY 8021R

Result <0.050	Reporting Limit	Analyzed	Method Blank	DC.	0.4			
<0.050			riculou blank	BS	% Recovery	True Value QC	RPD	Qualifier
	0.050	10/31/2017	ND	1.91	95.4	2.00	2.78	
<0.050	0.050	10/31/2017	ND	1.92	95.9	2.00	1.31	
<0.050	0.050	10/31/2017	ND	1.94	96.9	2.00	1.92	
<0.150	0.150	10/31/2017	ND	6.18	103	6.00	2.13	
<0.300	0.300	10/31/2017	ND					
101	% 72-148							
mg,	/kg	Analyzed By: HM						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
64.0	16.0	11/01/2017	ND	432	108	400	0.00	
mg,	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
<10.0	10.0	10/29/2017	ND					
86.0	% 28.3-16-	4						
87.6	% 34.7-15	7						
	<0.050 <0.050 <0.050 <0.150 <0.300  101  mg/  Result 64.0  mg/  Color = 10.0 <10.0 <86.0	<0.050 <0.050 <0.050 <0.150 <0.300 101 % 72-148 mg/kg Result Reporting Limit 64.0 16.0 mg/kg Result Reporting Limit <0.0 10.0 <10.0 <10.0 <10.0 <28.3-16	County   County	<0.050	<0.050	<0.050	<0.050	<0.050

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Celeg & Keine



### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

### Sample ID: E1 @ SURFACE (H702951-61)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/01/2017	ND	432	108	400	0.00	

### Sample ID: W1 @ SURFACE (H702951-62)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	11/01/2017	ND	432	108	400	0.00	

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Celley D. Keine



### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MS

Project Location: MACK ENERGY - CHAVES CO NM

### Sample ID: S1 @ SURFACE (H702951-63)

BTEX 8021B

	9/	9	7	y : : : •					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/31/2017	ND	1.91	95.4	2.00	2.78	
Toluene*	<0.050	0.050	10/31/2017	ND	1.92	95.9	2.00	1.31	
Ethylbenzene*	<0.050	0.050	10/31/2017	ND	1.94	96.9	2.00	1.92	
Total Xylenes*	<0.150	0.150	10/31/2017	ND	6.18	103	6.00	2.13	
Total BTEX	<0.300	0.300	10/31/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 72-148	?						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	11/01/2017	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
DRO >C10-C28	<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
EXT DRO >C28-C36	<10.0	10.0	10/29/2017	ND					
Surrogate: 1-Chlorooctane	82.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	91.3	% 34.7-15	7						

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### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Applyzod By: MC

Project Location: MACK ENERGY - CHAVES CO NM

### Sample ID: N2 @ SURFACE (H702951-64)

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/31/2017	ND	1.91	95.4	2.00	2.78	
Toluene*	<0.050	0.050	10/31/2017	ND	1.92	95.9	2.00	1.31	
Ethylbenzene*	<0.050	0.050	10/31/2017	ND	1.94	96.9	2.00	1.92	
Total Xylenes*	<0.150	0.150	10/31/2017	ND	6.18	103	6.00	2.13	
Total BTEX	<0.300	0.300	10/31/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 72-148							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/01/2017	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
DRO >C10-C28	<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
EXT DRO >C28-C36	<10.0	10.0	10/29/2017	ND					
Surrogate: 1-Chlorooctane	83.0	% 28.3-16-	4						
Surrogate: 1-Chlorooctadecane	87.8	% 34.7-157	7						

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Celley D. Keine



### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Project Location: MACK ENERGY - CHAVES CO NM

### Sample ID: E2 @ SURFACE (H702951-65)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/01/2017	ND	432	108	400	0.00	

### Sample ID: W2 @ SURFACE (H702951-66)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	11/01/2017	ND	432	108	400	0.00	

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Celegy T. Keene



### Analytical Results For:

BBC International, Inc.

Cliff Brunson P.O. Box 805 Hobbs NM, 88241

Fax To: (575) 397-0397

Received: 10/26/2017 Sampling Date: 10/18/2017

Reported: 11/02/2017 Sampling Type: Soil

Project Name: KLONDIKE STATE LEASE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Tamara Oldaker

Analyzed By: MC

Project Location: MACK ENERGY - CHAVES CO NM

### Sample ID: S2 @ SURFACE (H702951-67)

RTFY 8021R

B1EX 8021B	mg/	кд	Anaiyze	а ву: м5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/31/2017	ND	1.91	95.4	2.00	2.78	
Toluene*	< 0.050	0.050	10/31/2017	ND	1.92	95.9	2.00	1.31	
Ethylbenzene*	< 0.050	0.050	10/31/2017	ND	1.94	96.9	2.00	1.92	
Total Xylenes*	<0.150	0.150	10/31/2017	ND	6.18	103	6.00	2.13	
Total BTEX	<0.300	0.300	10/31/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/28/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2017	ND	188	93.8	200	3.24	
DRO >C10-C28	<10.0	10.0	10/29/2017	ND	200	100	200	5.92	
EXT DRO >C28-C36	<10.0	10.0	10/29/2017	ND					
Surrogate: 1-Chlorooctane	84.2 9	% 28.3-16-	4						
Surrogate: 1-Chlorooctadecane	89.1 9	% 34.7-15	7						

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### **Notes and Definitions**

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

accepted based of tecs and/or tecso recovery and/or KFD values.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

ecovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg & Keine

Project Owner: MaCKGWW   Phone #:   Project Owner: MaCKGWW   Phone #:   Project Owner: MaCKGWW   Phone #:	State: NM Zip: 88241   Attn:   Company: 28C   Com	State: NM   Zip: 88241   Attn:	Zip:
P.O. #:   State: NM Zip: 88241   Attn:   Fax #: 575-397-0397   Address:     Project Owner: Mat/CAUCa, City:   State: Zip:     Project Owner: Mat/CAUCa, City:   State: Zip:     Phone #:   Fax #:     State: Zip:   State: Zip:     State: Zip:   State: Zip:   State: Zip:   State: Zip:     State: Zip: Zip:   State: Zip: Zip:   State: Zip: Zip:   State: Zip: Zip:   State: Zip: Zip: Zip: Zip: Zip: Zip: Z	Project Owner:   MaCLGLUCA    Attn:   Company:   Address:   Project Owner:   MaCLGLUCA    Attn:   City:   State:   Zip:   Project Owner:   MaCLGLUCA    City:   City:   Project Owner:   MaCLGLUCA    City:	State: NM Zip: 88241 Attn:  Fax #: 575-397-0397 Address: ease  Project Owner: MaCCGUAGU  Project Owner: MaCCGUAGU  Project Owner: MaCCGUAGU  State: State: State: AATRIX  PRESER  Fax #:  MATRIX  PRESER  PLO. #:  PRODING #:  PRESER  PRESER  PRESER  PRESER  PRESER  PRESER  PRESER  PRODING #:  PRESER  PRODING #:  PRESER  PRESER  PRODING #:  PRESER  PRESER  PRESER  PRESER  PRODING #:  PRESER  PRESER  PRESER  PRESER  PRODING #:  PRESER  PRESER  PRODING #:  PRESER  PRESER  PRESER  PRODING #:  PRESER  PRESER  PRODING #:  PRESER	Zip Zip
Project Owner: MaCCCLUCA   Attn:   Project Owner: MaCCCLUCA   Attn:   Project Owner: MaCCCLUCA   State: Zip:   Project Owner: MaCCCLUCA   State: Zip:   Phone #:   Fax #:	State: NIM zip: 88241   Attn:   Fax #: 575-397-0397   Address:   State: Zip:   State	State: NM Zip: 88241 Attn:  Fax #: 575-397-0397 Address:  Project Owner: MaCCGUUQU City:  By, NM  Project Owner: MaCCGUUQU  State:  State:  Address:  State:  Address:  Address:  State:  Address:	Z Zi
State: NM Zip: 88241 Attn:  Fax #: 575-397-0397 Address:  State Lease  From the color of the col	State: NM Zip: 88241   Attr:   Project Owner: MaUCAUU (a)   City:   State: Zip:   State: Zip:	State: NM Zip: 88241 Attn:  Fax #: 575-397-0397  Project Owner: Mattletter Lease s County, NM Trielas  Sample I.D.  State: State	l ii l
State   Stat	State   Stat	State:  Klondike State Lease  Klondike State Lease  City:  Klondike State Lease  State:  Address:  Fax #:  Fax #:  Sample I.D.  SP1 @ 1'  Fax #:  SP1 @ 1'	İŻ
State: Lease Scounty, NM Troelas  County, NM  Fax #:	State   Lease   State   Zip:   Zip:   State   Zip:	State: St	JiZ
State:   Zip:   Phone #:   State   Lease   Phone #:     Phone #:   Phone	State: Zip:   Phone #:   Phone	State:  Coation: Chaves County, NM  Aame: Jeff Ornelas  Conty  Cool  Coo	iz
Phone #:   Fax #:	Phone #:   Fax #:	MATRIX  MATRIX  GROUNDWATER  GROUNDWATER  WASTEWATER  SOIL  OIL  SLUBGE  SLUBGE  ACID/BASE:  RA  RA  RA  RA  RESS  TOE / COOL  RESS	
Sample I.D.   Sp.	Deff Ornelas   Fax #:   PRESERV   SAMPLING	Sample I.D. Sample I.D. Sp1 @ 1.	
Sample I.D.   R   E   E   E   E   E   E   E   E   E	Sample I.D.	Sample I.D.  Sample I.D.  (G)RAB OR (C)OMP.  # CONTAINERS  GROUNDWATER  GROUNDWATER  GROUNDWATER  OIL  SOIL  OIL  SOIL  ATRIX  ACID/BASE:	
Sample I.D.   READ NOTE   SPT   SP	Sample I.D.	Sample I.D. Sample I.D.  (G)RAB OR (C)OMP  (G)RAB OR (C)OMP  (G)RAB OR (C)OMP  (C)RAB OR (C)OMP	7
SP1 @ 1'         Ø 2 Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø	SP1 @ 1'   SP1 @ 1'   SP1 @ 1'   SP1 @ 1   SP2 @ 1   SP2   SP3 AM	SP1@11	) J
SP1 @ 1'         G 1         10124/17 9:33           SP1 @ 2'         G 1         1024/17 9:33           SP1 @ 3'         G 1         1024/17 9:45           SP1 @ 13'         G 1         1024/17 10:1           SP2 @ 1'         G 1         10/24/17 10:1           SP2 @ 2'         G 1         10/24/17 10:4           SP2 @ 3'         G 1         10/24/17 10:4           SP2 @ 8'         G 1         10/24/17 10:4           SP2 @ 13'         G 1         10/24/17 10:7           SP2 @ 15'         10/24/17 10:7         10/24/17 11:3           SP2 @ 13'         G 1         10/24/17 11:3           SP2 @ 15'         G 1         10/24/17 11:3           SP2 @ 15'         G 1         10/24/17 11:3 </td <td>  SP1 @ 1'   10/24/17   9:33 AM   V   SP1 @ 2'   10/24/17   9:35 AM   V   SP1 @ 2'   10/24/17   9:35 AM   V   SP1 @ 3'   V   V   V   V   V   V   V   V   V  </td> <td>SP1@1'</td> <td>DATE 10/10/17</td>	SP1 @ 1'   10/24/17   9:33 AM   V   SP1 @ 2'   10/24/17   9:35 AM   V   SP1 @ 2'   10/24/17   9:35 AM   V   SP1 @ 3'   V   V   V   V   V   V   V   V   V	SP1@1'	DATE 10/10/17
11 (@ 2') 11 (@ 3') 12 (@ 1') 13 (@ 1') 14 (@ 13') 15 (@ 1') 15 (@ 1') 16 (@ 1') 16 (@ 1') 17 (@ 1') 18 (@ 1') 19 (@ 1') 19 (@ 1') 19 (@ 1') 19 (@ 1') 19 (@ 1') 19 (@ 1') 19 (@ 1') 19 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 10 (@ 1') 11 (@ 1') 12 (@ 1') 13 (@ 1') 14 (@ 1') 15 (@ 1') 16 (@ 1') 16 (@ 1') 17 (@ 1') 18 (@ 1') 19 (@	21		_
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10(24/17 10:3) 12 @ 1' 22 @ 2' 22 @ 3' 22 @ 8' 22 @ 1   10(24/17 10:4) 22 @ 3' 22 @ 3' 23 @ 8' 24   10(24/17 10:4) 25 @ 8' 26   1   10(24/17 10:4) 26   1   10(24/17 10:4) 26   1   10(24/17 10:4) 27 @ 8' 28   10(24/17 11:3) 28   10(24/17 11:3) 29   10(24/17 11:3) 20   10(24/17 11:3) 20   10(24/17 11:3) 20   10(24/17 11:3) 20   10(24/17 11:3) 20   10(24/17 11:3) 21   10(24/17 11:3) 22   10(24/17 11:3) 23   10(24/17 11:3) 24   10(24/17 11:3) 25   10(24/17 11:3) 25   10(24/17 11:3) 26   10(24/17 11:3) 27   10(24/17 11:3) 28   10(24/17 11:3) 39   10(24/17 11:3) 30	13    10	٦.	
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22 @ 3' 22 @ 8' 22 @ 10/24/17 11:3 22 @ 13' 22 @ 13' 23 @ 13' 24 @ 15' 25 @ 15' 25 @ 15' 26   15' 27 @ 15' 27 @ 15' 28   10/24/17 11:3	8  13:  (S) 1  (S) 2  (S) 2  (S) 3  (S) 3  (S) 3  (S) 4  (	SP2 @ 2	_
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22 @ 13' mages. Cardinat's liability and client's exclusive remedy for any client control curvers and received to the amount paid by the mages. Cardinate's liability, and client's exclusive remedy for any client control co	13?  The standard standard serobative remody for any claim artering whether based in contract or tool, shall be limited to the amount paid by the cleant for the applicable standard standard unless made in witing and received by Cauchinal waterin 30 days after completion of the applicable agency or any other causes whatsoever shall be deemed waved unless instructions, tose of use, or loss of profits incurred by cleant, its subsidiaries.  Not	.8	_
THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN THE PE	igence and any other Clase whatevers some the contraction business interruptions, loss of use, or loss of profits incurred by Centr, as subscename.  For incidental or consequental damages, including without lemisation, business such claim is based upoperly of the above stated reasons or otherwise.	ioni's exclusive remedy for any claim arising whether based	the amount paid by the
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Time: Option Received By:    Mark   Park Result:   Time: Option   Perceived By:   Date:   Perceived By:   Date:   Perceived By:   Perceived By	Date:	Time: Sample Condition	
Time:    Circle One   0.3   2   3   3   3   4   4   4   4   4   4   4	Time:  Sample Condition  Circle One)	The street of th	o. #15 dos, mad Spor n. Severe

Page 29 of 34

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES	101 East Marland, Hobbs, NM 88240	JEDE 1202 2226 EAY (505) 393-2476

State: NM zip: 88241   Attn:   Company:   BBC	e: NM zip: 88241 :: 575-397-0397 ct Owner: Mall (Mulay)	# E		-	ANALISIS NEGOLO	-
e: NM zip: 88241  Company: Ct Owner: GCOMPany: Ct Owner: GCONTERS  Company: Ct Owner: GCOMPany: Ct Owner: GCOMPany: Ct Owner: GCOMPany:	e: NM Zip: 88241 :: 575-397-0397 ct Owner: Mall (Mulgu)	.o.#: :ompany: BBC				
Sp3 @ 2'   Sp3 @ 3'	Herold	company: BBC			_	
State: NM Zip: 88241 Attn:  -397-6388 Fax#: 575-397-0397 Address:	Treated	uttn:				
SP3 @ 2'   SP3 @ 3'   SP3 @ 1'	Horan					
Tate Lease  County, NM  Thelas   Transpy	vddress:					
State:  MATRIX  GROUNDWATER  GROUNDWATER  AND CONCENTRINERS  AND CONCENTRIA  SOIL  SOIL  SOIL  AND CONCENTRIA  SOIL  SOIL  SOIL  AND CONCENTRIA  STATE  TAX  TAX  TAX  TAX  TAX  TAX  TAX	,	Sity:				
Phone  A CONTRINERS  ### ### ### ### ####################						
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Sample I.D.         MATRIX           SP3 @ 1'         ФОО О О О О О О О О О О О О О О О О О О			1	1		
SP3 @ 13         SP3 @ 2         SP3 @ 2         SP3 @ 8         SP3 @ 13         SP4 @ 1         SP4 @ 1         SP4 @ 1         SP4 @ 1	MATRIX		S	_)		
SP3@1' SP3@2' SP3@3' SP3@8' SP3@13' SP4@1'	GONTERS OR (C)OMP. CONTRIBES OR (C)OMP. CONTRIBES ON COUNTRIBE OF COUNTRIBES OF COUNTR	CID/BASE:	T)	X918		
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SP3 @ 2" SP3 @ 3" SP3 @ 8" SP3 @ 13" SP4 @ 1" SP4 @ 1"	>	10/24/17	10:24 AM			
SP3 @ 3' SP3 @ 8' SP3 @ 13' SP4 @ 1'		10/24/17				
		10/24/17	11:45 AM			
		10/24/17	12:12 PM 🗸			
		71/8/17	11:11 AM 🗸	<i>&gt;</i>		
C 60 103 C		10/24/17	10/24/17 1:01 PM 🗸			
, 8 SD4 @ 7" (5) 1:11 PM	(5)	10/24/17	1:11 PM 🗸			
SDA @ 12"	- 9	10/24/17	1:19 PM 🗸			
10/18/17	( )	71/81/01	11:33 AM 🗸			-

in writing and received by Cardinal within 30 days after completion of the appli

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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ompany Name:	ompany Name: RRC International, Inc.						1.696			718	BILL TO		199	1	ł	I	1	ANALYSIS	إز	200		計	KEGUESI	ŀ	ŀ	ŀ	T
roject Manager:	rolect Manager: Cliff Brunson						_	P.O. #:	**			1	_	_					_			_	_		_	_	
Adress P.O. Box 805	Box 805						J	mo	Company:	-	8	X	T	_									_		_		
Hobbs	State: NM	NM Zip: 88241	œ	824	=			Attn:					_						_					_			
hone #: 575-397-6388		575-397-0397	-03	397				Address:	ess:				-	_					_					_	_		
roject #:		Project Owner: Mack	3	9	3	2		City:					_												_		
roject Name: K	Project Name: Klondike State Lease					3		State:	242	14	Zip:		_	_					_					_	_	_	
roject Location	Project Location: Chaves County, NM							Phone #:	1e #:					_					_					-	_		
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sampler Name.	000000000000000000000000000000000000000	F	Γ	L	2	MATRIX	×	-	PRESERV.	RV.	SAM	SAMPLING		_					_		_	_			_		
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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mmayers. All claims including those for negligence and any other cause whatboever shall be service. In no event shall Cardinal be lable for incidental or consequental damages, including

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Page 31 of 34

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

ARDINAL LABORATORIES

Nome: DDC Internal	COO International Inc	BILL TO	ANALYSIS REQUEST
company value. BBC International, Inc.	ational, inc.		
Project Manager: Cliff Brunson	uc	P.O. #:	
Address P.O. Box 805		Company: BBC	
City: Hobbs	State: NM Zip: 88241	Attn:	
Phone #: 575-397-6388	Fax#: 575-397-0397	Address:	
Project #:	Project Owner: Mack Grandy	City:	
Project Name: Klondike State Lease	Lease	State: Zip:	
Project   Chaves County, NM	Inty, NM	Phone #:	
right Location	S	Fax #:	
Sampler Name: John Office	MATRIX	PRESERV   SAMPLING	
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10/25/17 8:50 AM

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SP7 @ 3' SP7 @ 4' SP7 @ 9'

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Lab I.D.

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TIME CITY

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### Page 32 of 34

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST 10/25/17 11:11 AM 10/25/17 11:39 AM 10/25/17 11:59 AM 10/25/17 12:44 PM 10/25/17 10:55 AM 10/18/17 2:15 PM 10/25/17 10:15 AM 10/25/17 10:40 AM 10/18/17 1:59 PM 1:11 PM TIME 10/25/17 DATE BILL TO Zip: **DIHER** Company: ICE / COOF Address: Phone #: P.O. #: State: Fax #: ACID/BASE Attn: City: **ABHTO** STADGE OIL Project Owner: Mack Craftly TIOS **MASTEWATER** Zip: 88241 Fax #: 575-397-0397 GROUNDWATER 0 0 5 (G)RAB OR (C)OMP. 0 (505) 393-2326 FAX (505) 393-2476 State: NM Company Name: BBC International, Inc. Sample I.D. Project Location: Chaves County, NM Project Name: Klondike State Lease Jeff Ornelas Project Manager: Cliff Brunson SP10 @ 12' SP11@3 SP11@1 SP10 @ 7" SP11 @ 2' SP10 @ 2' SP9 @ 12' SP10@1 SP9 @ 7' Phone #: 575-397-6388 Address: P.O. Box 805 Sampler Name: 4702951 City: Hobbs FOR LAB USE ONLY Lab I.D. Project #:

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within 30 days after cor

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loss of use, or loss of profits

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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01 East Marland, Hobbs, NM 88240

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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company Nam	company Name: BBC International, Inc.		1					18	1				H	-	H	H	H	_								_
roject Manage	Project Manager: Cliff Brunson							P.O. #:	#		100		T	_	_		_	_							_	_
Address: P.O. Box 805	). Box 805							Con	Company:		9	1	T	_	_	_	_					_			_	
City: Hobbs		State: NM Zip: 88241	8	185	41			Attn:					T	_	_	_	_									_
Phone #: 575-397-6388		Fax #: 575-397-0397	9	397				Add	Address:	***					_	_										_
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200	SP13 @ 7"	0	-			1				1	10/2		PM	,		1	1			+	+	+	+	-	+	T
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service. In no event sh.	tall Cardinal be liable for incidental of corresponding	Castrages, shoulding wighted a	-									A PERSON NAMED IN CO. OF THE OWNER, WHEN PERSON NAMED IN CO. OF THE OWNER, WHEN PERSON NAMED IN CO. OF THE OWNER, THE OWN	- in succession													

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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101 East Marland, Hobbs, NM 88240

### Page 34 of 34

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST 10/18/17 3:11 PM 10/18/17 3:21 PM 10/18/17 3:25 PM 10/18/17 3:08 PM 10/18/17 3:15 PM 10/18/17 3:18 PM 10/18/17 3:05 PM TIME SAMPLING DATE BILL TO Zip: **ЯЗНТО** PRESERV Company: ICE / COOF Address: Phone #: P.O. #: Fax #: ACID/BASE State: Attn: City: OTHER STADGE Project Owner: Mack Griendy TIOS MASTEWATER Zip: 88241 Fax #: 575-397-0397 GROUNDWATER (G)RAB OR (C)OMP. 0 0 505) 393-2326 FAX (505) 393-2476 State: NM ENTIPOLOGICAL Company Name: BBC International, Inc. Sample I.D. Project Location: Chaves County, NM Project Name: Klondike State Lease W2 @ SURFACE W1 @ SURFACE N2 @ SURFACE E2 @ SURFACE S1 @ SURFACE S2 @ SURFACE E1 @ SURFACE Jeff Ornelas Project Manager: Cliff Brunson Address: P.O. Box 805 Phone #: 575-397-6388 Sampler Name: FOR LAB USE ONLY 4702951 city: Hobbs Lab I.D. roject #:

Fax Result: REMARKS: in no event shall Card elinquist

ed by Cardinal within 30 days after

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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

01 East Marland, Hobbs, NM 88240

### NM OIL CONSERVATION

ARTESIA DISTRICT

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

Santa Fe, NM 87505

DCT 17 2017

Form C-141 TRevised April 3, 2017

Oil Conservation Division 1220 South St. Francis Dr. saccordance with 19.15.29 NMAC.

	29/58 ompany M	ack Energy		13831		OPERA' Contact Ma				al Report  Final Re
Address PC		2111.67		10031		A CONTRACTOR OF THE PARTY OF TH	No. 575-748-12	88		
Facility Na	me Klondi	ike State Lea	ase		I I	Facility Typ	e Well			
Surface Ov	vner NMS	LO		Mineral O	wner N	IMSLO			API No	o. 30-005-64295
				LOCA	TION	OF RE	LEASE			
Jnit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East	West Line	County
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vas immed	iate Notice (		Yes [	No □ Not Re	equired		cher, Crystal Wes	aver, A	mber Grove	8
	Matt Buckle						Hour 10/16/17 4p			
Vas a Water	rcourse Read		Yes 🗵	7 No		If YES, Ve	olume Impacting	the Wa	itercourse.	
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Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/17/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 11/17/2017 If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- •Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.
- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.
- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring
  wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit
  either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should
  not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location
  and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

### Bratcher, Mike, EMNRD

From: Matt Buckles <mattbuckles@mec.com>

Sent: Tuesday, October 17, 2017 4:52 PM

To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; agroves@slo.state.nm.us

Cc: Lee Livingston; Jerry Sherrell

Subject: RE: C-141 on the Klondike Release

Attachments: Klondike Lease.pdf

From: Matt Buckles

Sent: Tuesday, October 17, 2017 4:51 PM

To: 'Bratcher, Mike, EMNRD'; Crystal.Weaver@state.nm.us; 'agroves@slo.state.nm.us'

Cc: Lee Livingston; Jerry Sherrell Subject: C-141 on the Klondike Release

Here is the completed C-141. Let me know if you have any questions or concerns.

Thanks,

Matt Buckles

From: Matt Buckles

Sent: Monday, October 16, 2017 3:51 PM

To: 'Bratcher, Mike, EMNRD'; Crystal.Weaver@state.nm.us; 'agroves@slo.state.nm.us'

Cc: Lee Livingston; Jerry Sherrell

Subject: Immediate Notice on the Klondike Release

Good Afternoon,

Mack Energy had a release on the Klondike State Lease in Chaves County of approximately 200 Bbls of produced water. The release was discovered this morning 10/16/2017 at approximately 7:30am. We will be submitting a C-141 shortly.

Thanks,

Matt Buckles
Mack Energy Corporation
11344 Lovington Highway
Artesia NM 88210
575-748-1288 Office
575-703-1958 Mobile
575-746-5508 Fax
Email:mattbuckles@mec.com
http://www.mec.com

### **Bratcher, Mike, EMNRD**

From:

Weaver, Crystal, EMNRD

Sent:

Monday, December 11, 2017 3:41 PM

To:

**Matt Buckles** 

Cc:

Bratcher, Mike, EMNRD; agroves@slo.state.nm.us; Lee Livingston; Jerry Sherrell; Cliff Brunson

**Subject:** 

RE: C-141 on the Klondike Release 2RP-4446

RE: Mack Energy \* Klondike State Lease \* 30-005-64295 \* 2RP-4446

Matt/Cliff,

The site characterization/work plan is approved with the following conditions:

- It states in the proposal that "The area near SP1 SP5, SP8 SP10, SP12, and SP13 (yellow shade on diagram) will be excavated to a depth of 1 foot. The area near SP6 and SP11 (purple shade on diagram) will be excavated to a depth of 2 feet. The area near SP7 (blue shade on diagram) will be excavated to a depth of 3 feet." OCD will require that all of these areas will be excavated through the interval they state i.e. SP-7 area will be excavated through to the 4ft depth etc. Otherwise bottom hole lab confirmation samples will be required every 50 ft. in every cardinal direction within the spill plume. OCD has reason to believe that within the area that this release occurred in that shallow ground water may be likely to be encountered. Therefore, OCD would prefer that this release get remediated to the full extent practicable.
- Please provide representative sidewall lab tested samples of the excavated areas that are demarked on your map as the 2' and 3' areas.

Please notify OCD once remedial activities have been scheduled.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact Mike Bratcher and/or myself in the District II Office.

### **Crystal Weaver**

Environmental Specialist OCD – Artesia District II 811 S. 1<sup>st</sup> Street Artesia, NM 88210

Office: 575-748-1283 ext. 101

Cell: 575-840-5963 Fax: 575-748-9720 ----Original Message-----

From: Matt Buckles [mailto:mattbuckles@mec.com]

Sent: Monday, November 20, 2017 3:00 PM

To: Weaver, Crystal, EMNRD < Crystal. Weaver@state.nm.us>

Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; agroves@slo.state.nm.us; Lee Livingston <leel@mec.com>;

Jerry Sherrell <jerrys@mec.com>; Cliff Brunson <cbrunson@bbcinternational.com>

Subject: Re: C-141 on the Klondike Release 2RP-4446

Attached is the site characterization plan and work plan. Please let me know if you have any questions or concerns.

Thanks, Matt Buckles



FW: The Oil Conservation Division (OCD) has accepted the application, Application ID: 429653

From Natalie Gladden <natalie@energystaffingllc.com>

Date Tue 2/11/2025 12:11 PM

To Brittney Corral <bri>hrittney@energystaffingllc.com>

### Natalie Gladden

**Director of Environmental and Regulatory Services** 

**Energy Staffing Services, LLC.** 

2724 NW County Road Hobbs, NM 88240

Cell: 575-390-6397 Office: 575-393-9048

Email: <u>natalie@energystaffingllc.com</u>



From: OCDOnline@state.nm.us < OCDOnline@state.nm.us >

Sent: Tuesday, February 11, 2025 12:07 PM

To: Natalie Gladden <natalie@energystaffingllc.com>

Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 429653

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

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAB1729158101.

The sampling event is expected to take place:

**When:** 10/03/2022 @ 07:00

Where: O-23-15S-28E 700 FSL 2285 FEL (32.99617,-104.10134)

**Additional Information: ESS 5753939048** 

**Additional Instructions: KLONDIKE** 

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC.

Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

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

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

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

### MACK ENERGY: KLONDIKE STATE LEASE SITE PHOTOS











CLIENT: MACK ENERGY LOCATION: KLONDIKE STATE LEASE

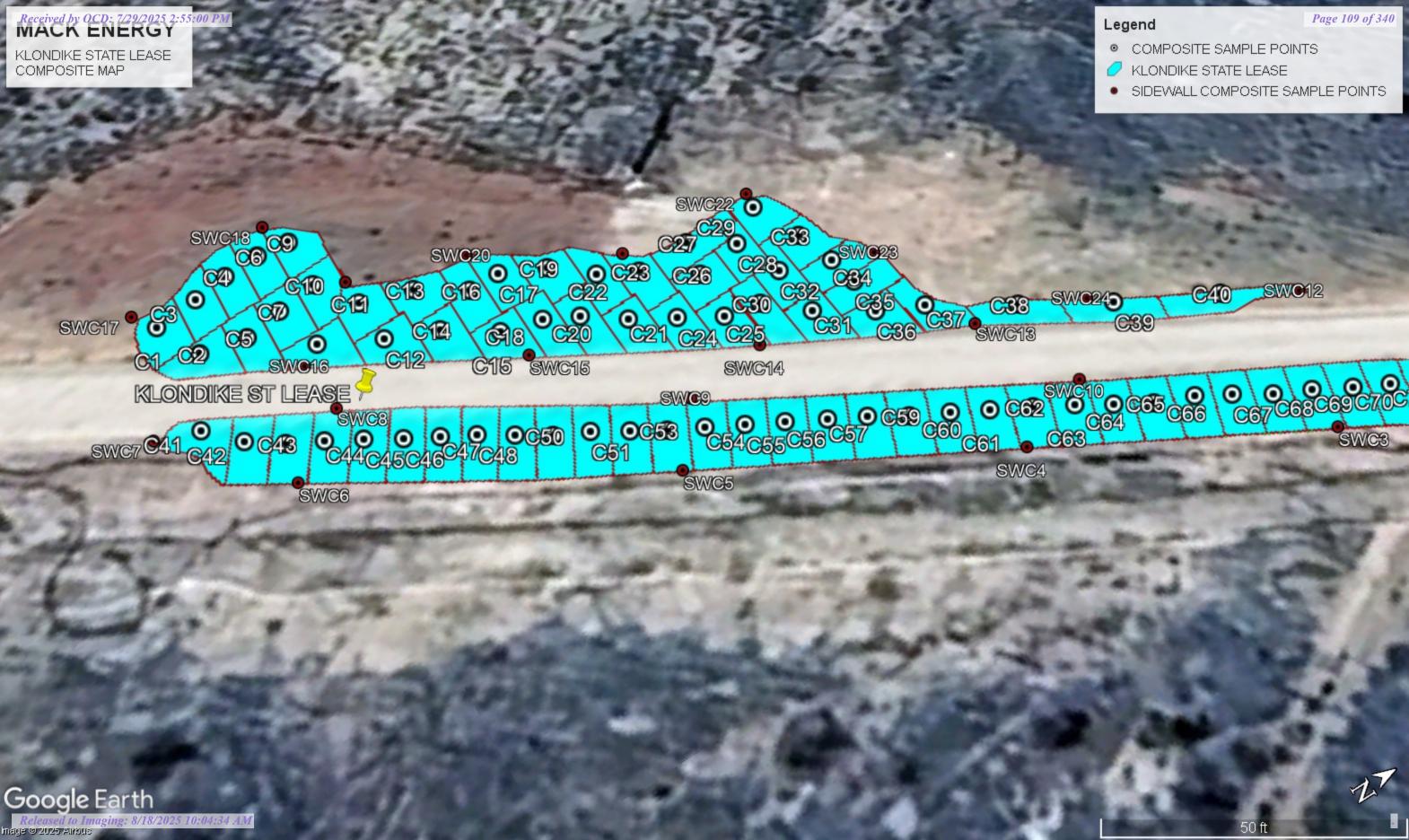
SP ID	Depth	Titr	PID	L-BTEX	L-GRO	L-DRO	L-ORO	L-TPH	L-CHL
COMP 1	4	20	L	ND	ND	ND	ND	ND	ND
COMP 2	4	20	L	ND	ND	ND	ND	ND	ND
COMP 3	4	20	L	ND	ND	ND	ND	ND	ND
COMP 4	4	220	L	ND	ND	ND	ND	ND	219
COMP 5	4	320	L	ND	ND	ND	ND	ND	327
COMP 6	4	20	L	ND	ND	ND	ND	ND	ND
COMP 7	4	20	L	ND	ND	ND	ND	ND	ND
COMP 8	4	220	L	ND	ND	ND	ND	ND	222
COMP 9	4	400	L	ND	ND	ND	ND	ND	398
COMP 10	4	500	L	ND	ND	ND	ND	ND	496
COMP 11	4	240	L	ND	ND	ND	ND	ND	233
COMP 12	4	80	L	ND	ND	ND	ND	ND	75.3
COMP 13	4	20	L	ND	ND	ND	ND	ND	21
COMP 14	4	400	L	ND	ND	ND	ND	ND	682
COMP14A	6	80	L	ND	ND	ND	ND	ND	41.9
COMP 15	4	320	L	ND	ND	ND	ND	ND	ND
COMP 16	4	160	L	ND	ND	ND	ND	ND	ND
COMP 17	4	80	L	ND	ND	ND	ND	ND	ND
COMP 18	4	80	L	ND	ND	ND	ND	ND	ND
COMP 19	4	160	L	ND	ND	ND	ND	ND	ND
COMP 20	4	80	L	ND	ND	ND	ND	ND	ND
COMP 21	4	80	L	ND	ND	ND	ND	ND	ND
COMP 22	4	80	L	ND	ND	ND	ND	ND	ND
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COMP 28	4	80	L	ND	ND	ND	ND	ND	ND
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COMP 33	4	80	L	ND	ND	ND	ND	ND	ND
COMP 34	4	80	L	ND	ND	ND	ND	ND	ND
COMP 35	4	240	L	ND	ND	ND	ND	ND	ND
COMP 36	4	240	L	ND	ND	ND	ND	ND	ND
COMP 37	4	80	L	ND	ND	ND	ND	ND	ND
COMP 38	4	80	L	ND	ND	ND	ND	ND	ND
COMP 39	4	80	L	ND	ND	ND	ND	ND	ND
COMP 40	4	80	L	ND	ND	ND	ND	ND	ND
COMP 41	4	80	L	ND	ND	ND	ND	ND	ND
COMP 42	4	80	L	ND	ND	ND	ND	ND	ND
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COMP 45	4	80	L	ND	ND	ND	ND	ND	ND
COMP 46	4	80	L	ND	ND	ND	ND	ND	ND
COMP 47	4	80	L	ND	ND	ND	ND	ND	ND
COMP 48	4	80	L	ND	ND	ND	ND	ND	ND
COMP 49	4	160	L	ND	ND	ND	ND	ND	ND
COMP 50	4	160	L	ND	ND	ND	ND	ND	ND
COMP 51	4	160	L	ND	ND	ND	ND	ND	ND
COMP 52	4	160	L	ND	ND	ND	ND	ND	ND
COMP 53	4	80	L	ND	ND	ND	ND	ND	ND
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COMP 59	4	320	L	ND	ND	ND	ND	ND	ND

COMP 60	4	320	L	ND	ND	ND	ND	ND	312
COMP 61	4	240	L	ND	ND	ND	ND	ND	ND
COMP 62	4	240	L	ND	ND	ND	ND	ND	ND
COMP 63	4	80	L	ND	ND	ND	ND	ND	ND
COMP 64	4	80	L	ND	ND	ND	ND	ND	ND
COMP 65	4	80	L	ND	ND	ND	ND	ND	ND
COMP 66	4	80	L	ND	ND	ND	ND	ND	ND
COMP 67	4	80	L	ND	ND	ND	ND	ND	ND
COMP 68	4	80	L	ND	ND	ND	ND	ND	ND
COMP 69	4	160	L	ND	ND	ND	ND	ND	ND
COMP 70	4	160	L	ND	ND	ND	ND	ND	ND
COMP 71	4	240	L	ND	ND	ND	ND	ND	ND
COMP 72	4	240	L	ND	ND	ND	ND	ND	ND
COMP 73	4	240	L	ND	ND	ND	ND	ND	ND
COMP 74	4	320	L	ND	ND	ND	ND	ND	ND
COMP 75	4	320	L	ND	ND	ND	ND	ND	ND
COMP 76	4	80	L	ND	ND	ND	ND	ND	ND
COMP 77	4	80	L	ND	ND	ND	ND	ND	ND
COMP 78	4	80	L	ND	ND	ND	ND	ND	ND
COMP 79	4	80	L	ND	ND	ND	ND	ND	ND
COMP 80	4	80	L	ND	ND	ND	ND	ND	ND
COMP 81	4	80	L	ND	ND	ND	ND	ND	ND
COMP 82	4	80	L	ND	ND	ND	ND	ND	ND
COMP 83	4	80	L	ND	ND	ND	ND	ND	ND
COMP 84	4	80	L	ND	ND	ND	ND	ND	ND
SWC1	2	80	L	ND	ND	ND	ND	ND	ND
SWC2	2	80	L	ND	ND	ND	ND	ND	ND
SWC3	2	80	L	ND	ND	ND	ND	ND	ND
SWC4	2	80	L	ND	ND	ND	ND	ND	ND
SWC5	2	80	L	ND	ND	ND	ND	ND	ND
SWC6	2	80	L	ND	ND	ND	ND	ND	ND

SWC7	2	80	L	ND	ND	ND	ND	ND	ND
SWC8	2	80	L	ND	ND	ND	ND	ND	ND
SWC9	2	80	L	ND	ND	ND	ND	ND	ND
SWC10	2	80	L	ND	ND	ND	ND	ND	ND
SWC11	2	80	L	ND	ND	ND	ND	ND	ND
SWC12	2	80	L	ND	ND	ND	ND	ND	ND
SWC13	2	80	L	ND	ND	ND	ND	ND	ND
SWC14	2	80	L	ND	ND	ND	ND	ND	ND
SWC15	2	80	L	ND	ND	ND	ND	ND	ND
SWC16	2	80	L	ND	ND	ND	ND	ND	ND
SWC17	2	80	L	ND	ND	ND	ND	ND	ND
SWC18	2	80	L	ND	ND	ND	ND	ND	ND
SWC19	2	80	L	ND	ND	ND	ND	ND	ND
SWC20	2	80	L	ND	ND	ND	ND	ND	ND
SWC21	2	80	L	ND	ND	ND	ND	ND	ND
SWC22	2	80	L	ND	ND	ND	ND	ND	ND
SWC23	2	80	L	ND	ND	ND	ND	ND	ND
SWC24	2	80	L	ND	ND	ND	ND	ND	ND







CLIENTS: MACK ENERGY
LOCATION: KLONDIKE STATE LEASE

SAMPLE ID	LATITUDE	LONGITUDE
C1	32.986053°	-104.098286°
C2	32.986067°	-104.098252°
C3	32.986078°	-104.098293°
C4	32.986098°	-104.098300°
C5	32.986093°	-104.098247°
C6	32.986119°	-104.098305°
C7	32.986115°	-104.098255°
C8	32.986124°	-104.098219°
C9	32.986138°	-104.098305°
C10	32.986138°	-104.098263°
C11	32.986155°	-104.098234°
C12	32.986157°	-104.098200°
C13	32.986185°	-104.098225°
C14	32.986186°	-104.098187°
C15	32.986214°	-104.098165°
C16	32.986212°	-104.098205°
C17	32.986231°	-104.098207°
C18	32.986238°	-104.098159°
C19	32.986257°	-104.098194°
C20	32.986257°	-104.098148°
C21	32.986279°	-104.098129°
C22	32.986279°	-104.098172°
C23	32.986301°	-104.098159°
C24	32.986303°	-104.098113°
C25	32.986326°	-104.098097°
C26	32.986330°	-104.098135°
C27	32.986335°	-104.098163°
C28	32.986360°	-104.098144°
C29	32.986383°	-104.098165°
C30	32.986348°	-104.098093°
C31	32.986370°	-104.098069°
C32	32.986370°	-104.098109°
C33	32.986394°	-104.098127°
C34	32.986400°	-104.098097°
C35	32.986402°	-104.098074°
C36	32.986400°	-104.098046°
C37	32.986426°	-104.098032°
C38	32.986471°	-104.097999°
C39	32.986518°	-104.097966°
C40	32.986574°	-104.097933°

C41	32.986050°	-104.098198°
C42	32.986067°	-104.098176°
C43	32.986085°	-104.098161°
C44	32.986103°	-104.098150°
C45	32.986121°	-104.098138°
C46	32.986139°	-104.098125°
C47	32.986156°	-104.098114°
C48	32.986173°	-104.098103°
C49	32.986190°	-104.098090°
C50	32.986207°	-104.098077°
C51	32.986225°	-104.098067°
C52	32.986243°	-104.098054°
C53	32.986260°	-104.098042°
C54	32.986278°	-104.098031°
C55	32.986297°	-104.098019°
C56	32.986316°	-104.098007°
C57	32.986336°	-104.097994°
C58	32.986355°	-104.097982°
C59	32.986374°	-104.097968°
C60	32.986394°	-104.097956°
C61	32.986413°	-104.097944°
C62	32.986434°	-104.097931°
C63	32.986454°	-104.097918°
C64	32.986472°	-104.097905°
C65	32.986491°	-104.097892°
C66	32.986513°	-104.097882°
C67	32.986531°	-104.097870°
C68	32.986550°	-104.097856°
C69	32.986570°	-104.097845°
C70	32.986590°	-104.097832°
C71	32.986609°	-104.097821°
C72	32.986627°	-104.097809°
C73	32.986645°	-104.097795°
C74	32.986665°	-104.097783°
C75	32.986685°	-104.097770°
C76	32.986705°	-104.097756°
C77	32.986726°	-104.097742°
C78	32.986746°	-104.097731°
C79	32.986769°	-104.097717°
C80	32.986792°	-104.097700°
C81	32.986814°	-104.097682°
C82	32.986839°	-104.097666°
C83	32.986863°	-104.097647°
C84	32.986897°	-104.097626°

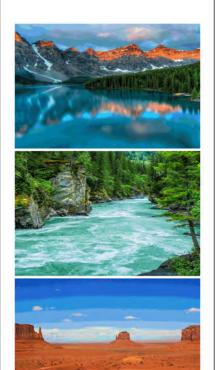


COMPANY: MACK ENERGY LOCATION: KLONDIKE ST LEASE

POINT	LATITUDE	LONGITUDE
SWC1	32.986917°	-104.097609°
SWC2	32.986750°	-104.097700°
SWC3	32.986565°	-104.097818°
SWC4	32.986416°	-104.097912°
SWC5	32.986255°	-104.098014°
SWC6	32.986082°	-104.098133°
SWC7	32.986027°	-104.098209°
SWC8	32.986117°	-104.098170°
SWC9	32.986282°	-104.098056°
SWC10	32.986468°	-104.097933°
SWC11	32.986707°	-104.097781°
SWC12	32.986615°	-104.097908°
SWC13	32.986443°	-104.098004°
SWC14	32.986333°	-104.098067°
SWC15	32.986221°	-104.098141°
SWC16	32.986113°	-104.098210°
SWC17	32.986044°	-104.098305°
SWC18	32.986130°	-104.098329°
SWC19	32.986155°	-104.098256°
SWC20	32.986222°	-104.098234°
SWC21	32.986300°	-104.098180°
SWC22	32.986386°	-104.098180°
SWC23	32.986425°	-104.098089°
SWC24	32.986508°	-104.097980°

Report to:

Natalie Gladden





5796 U.S. Hwy 64 Farmington, NM 87401

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





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Practical Solutions for a Better Tomorrow

## **Analytical Report**

Mack Energy

Project Name: Klondike State Com 1H

Work Order: E210021

Job Number: 20046-0001

Received: 10/5/2022

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 10/6/22

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. Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 10/6/22

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike State Com 1H

Workorder: E210021

Date Received: 10/5/2022 10:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/5/2022 10:30:00AM, under the Project Name: Klondike State Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike State Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881

Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

**Alexa Michaels** 

Sample Custody Officer Office: 505-632-1881

labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area Lynn Jarboe

Technical Representative/Client Services

Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

Rayny Hagan Technical Representative

West Texas Midland/Odessa Area

Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com



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## Sample Summary

Mack Energy	Project Name:	Klondike State Com 1H	Donoutode
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/06/22 13:56

Client Sample ID	Lab Sample ID Matrix	Sampled	Received	Container
CP1 - 4'	E210021-01A Soil	10/03/22	10/05/22	Glass Jar, 4 oz.
CP2 - 4'	E210021-02A Soil	10/03/22	10/05/22	Glass Jar, 4 oz.
CP3 - 4'	E210021-03A Soil	10/03/22	10/05/22	Glass Jar, 4 oz.
CP4 - 4'	E210021-04A Soil	10/03/22	10/05/22	Glass Jar, 4 oz.
CP5 - 4'	E210021-05A Soil	10/03/22	10/05/22	Glass Jar, 4 oz.



Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/6/2022 1:56:58PM

#### CP1 - 4' E210021-01

		E210021-01				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Allaryte	Resuit	Limit	Dilution	Frepared	Ananyzeu	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	/st: IY		Batch: 2241050
Benzene	ND	0.0250	1	10/04/22	10/05/22	
Ethylbenzene	ND	0.0250	1	10/04/22	10/05/22	
Toluene	ND	0.0250	1	10/04/22	10/05/22	
o-Xylene	ND	0.0250	1	10/04/22	10/05/22	
p,m-Xylene	ND	0.0500	1	10/04/22	10/05/22	
Total Xylenes	ND	0.0250	1	10/04/22	10/05/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	/st: IY		Batch: 2241050
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/04/22	10/05/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.4 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	/st: JL		Batch: 2241059
Diesel Range Organics (C10-C28)	ND	25.0	1	10/05/22	10/05/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/05/22	10/05/22	
Surrogate: n-Nonane		116 %	50-200	10/05/22	10/05/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	/st: RAS		Batch: 2241064
Chloride	ND	200	10	10/05/22	10/06/22	



Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/6/2022 1:56:58PM

CP2 - 4'

#### E210021-02

		Reporting				
Analyte	Result	Limit	Dilutio	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	An	alyst: IY		Batch: 2241050
Benzene	ND	0.0250	1	10/04/22	10/05/22	
Ethylbenzene	ND	0.0250	1	10/04/22	10/05/22	
Toluene	ND	0.0250	1	10/04/22	10/05/22	
o-Xylene	ND	0.0250	1	10/04/22	10/05/22	
p,m-Xylene	ND	0.0500	1	10/04/22	10/05/22	
Total Xylenes	ND	0.0250	1	10/04/22	10/05/22	
Surrogate: 4-Bromochlorobenzene-PID		101 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	An	alyst: IY		Batch: 2241050
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/04/22	10/05/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.2 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	An	alyst: JL		Batch: 2241059
Diesel Range Organics (C10-C28)	ND	25.0	1	10/05/22	10/05/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/05/22	10/05/22	
Surrogate: n-Nonane		101 %	50-200	10/05/22	10/05/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	An	alyst: RAS		Batch: 2241064
Chloride	ND	100	5	10/05/22	10/06/22	



Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/6/2022 1:56:58PM

CP3 - 4'

E210021-03	
Reporting	

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2241050
Benzene	ND	0.0250	1	10/04/22	10/05/22	
Ethylbenzene	ND	0.0250	1	10/04/22	10/05/22	
Toluene	ND	0.0250	1	10/04/22	10/05/22	
-Xylene	ND	0.0250	1	10/04/22	10/05/22	
o,m-Xylene	ND	0.0500	1	10/04/22	10/05/22	
Cotal Xylenes	ND	0.0250	1	10/04/22	10/05/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2241050
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/04/22	10/05/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		83.3 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: JL		Batch: 2241059
Diesel Range Organics (C10-C28)	ND	25.0	1	10/05/22	10/05/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/05/22	10/05/22	
Surrogate: n-Nonane		110 %	50-200	10/05/22	10/05/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2241064
Chloride	ND	200	10	10/05/22	10/06/22	

Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/6/2022 1:56:58PM

#### CP4 - 4'

#### E210021-04

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: IY		Batch: 2241050
Benzene	ND	0.0250	1	10/04/22	10/05/22	
Ethylbenzene	ND	0.0250	1	10/04/22	10/05/22	
Toluene	ND	0.0250	1	10/04/22	10/05/22	
o-Xylene	ND	0.0250	1	10/04/22	10/05/22	
p,m-Xylene	ND	0.0500	1	10/04/22	10/05/22	
Total Xylenes	ND	0.0250	1	10/04/22	10/05/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	t: IY		Batch: 2241050
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/04/22	10/05/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		82.8 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	t: JL		Batch: 2241059
Diesel Range Organics (C10-C28)	ND	25.0	1	10/05/22	10/05/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/05/22	10/05/22	
Surrogate: n-Nonane		111 %	50-200	10/05/22	10/05/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	t: RAS		Batch: 2241064
Chloride	219	200	10	10/05/22	10/06/22	



Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/6/2022 1:56:58PM

#### CP5 - 4'

#### E210021-05

		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2241050
Benzene	ND	0.0250	1	10/04/22	10/05/22	
Ethylbenzene	ND	0.0250	1	10/04/22	10/05/22	
Toluene	ND	0.0250	1	10/04/22	10/05/22	
o-Xylene	ND	0.0250	1	10/04/22	10/05/22	
o,m-Xylene	ND	0.0500	1	10/04/22	10/05/22	
Total Xylenes	ND	0.0250	1	10/04/22	10/05/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2241050
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/04/22	10/05/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		82.6 %	70-130	10/04/22	10/05/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: JL		Batch: 2241059
Diesel Range Organics (C10-C28)	ND	25.0	1	10/05/22	10/05/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/05/22	10/05/22	
Surrogate: n-Nonane		110 %	50-200	10/05/22	10/05/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2241064
Chloride	327	200	10	10/05/22	10/06/22	



Surrogate: 4-Bromochlorobenzene-PID

## **QC Summary Data**

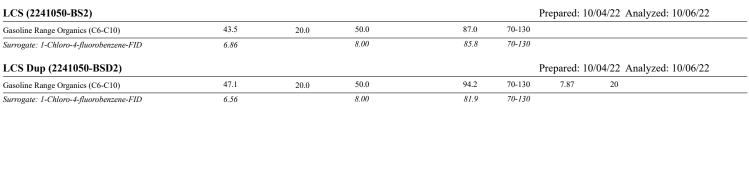
Mack Energy	Project Name:	Klondike State Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/6/2022 1:56:58PM

7 W. Compress Road Artesia NM, 88210		Project Number: Project Manager:		046-0001 atalie Gladden				1	10/6/2022 1:56:58PM			
		Volatile Organics by EPA 8021B										
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit				
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes			
Blank (2241050-BLK1)						I	Prepared: 10	)/04/22 An	alyzed: 10/06/22			
Benzene	ND	0.0250										
Ethylbenzene	ND	0.0250										
Toluene	ND	0.0250										
o-Xylene	ND	0.0250										
o,m-Xylene	ND	0.0500										
Total Xylenes	ND	0.0250										
Surrogate: 4-Bromochlorobenzene-PID	8.17		8.00		102	70-130						
LCS (2241050-BS1)						I	Prepared: 10	0/04/22 An	alyzed: 10/06/22			
Benzene	4.81	0.0250	5.00		96.2	70-130						
Ethylbenzene	4.01	0.0250	5.00		80.2	70-130						
Toluene	4.24	0.0250	5.00		84.8	70-130						
o-Xylene	4.11	0.0250	5.00		82.3	70-130						
p,m-Xylene	8.14	0.0500	10.0		81.4	70-130						
Total Xylenes	12.3	0.0250	15.0		81.7	70-130						
Surrogate: 4-Bromochlorobenzene-PID	8.16		8.00		102	70-130						
LCS Dup (2241050-BSD1)						I	Prepared: 10	)/04/22 An	alyzed: 10/06/22			
Benzene	5.18	0.0250	5.00		104	70-130	7.37	20				
Ethylbenzene	4.32	0.0250	5.00		86.4	70-130	7.48	20				
Toluene	4.56	0.0250	5.00		91.3	70-130	7.39	20				
o-Xylene	4.41	0.0250	5.00		88.3	70-130	7.01	20				
p,m-Xylene	8.75	0.0500	10.0		87.5	70-130	7.17	20				
Total Xylenes	13.2	0.0250	15.0		87.7	70-130	7.12	20				



Mack EnergyProject Name:Klondike State Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden10/6/20221:56:58PM

Artesia NM, 88210		Project Manager	r: Na	atalie Gladden	1				10/6/2022 1:56:58PN
	Non	Analyst: IY							
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
Blank (2241050-BLK1)							Prepared: 1	0/04/22 A	nalyzed: 10/06/22
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.82		8.00		85.3	70-130			
LCS (2241050-BS2)							Prepared: 1	0/04/22 A	nalyzed: 10/06/22



Mack EnergyProject Name:Klondike State Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden10/6/20221:56:58PM

Artesia NM, 88210		Project Manage	r: N	atalie Gladden					10/6/2022 1:56:58PM
	Nonhal	logenated Or	ganics by	EPA 8015D	- DRO	/ORO			Analyst: JL
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2241059-BLK1)							Prepared: 1	0/05/22	Analyzed: 10/05/22
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	55.1		50.0		110	50-200			
LCS (2241059-BS1)							Prepared: 1	0/05/22	Analyzed: 10/05/22
Diesel Range Organics (C10-C28)	266	25.0	250		106	38-132			
urrogate: n-Nonane	55.2		50.0		110	50-200			
Matrix Spike (2241059-MS1)				Source: 1	E <b>210021-</b> 0	04	Prepared: 1	0/05/22	Analyzed: 10/05/22
Diesel Range Organics (C10-C28)	278	25.0	250	ND	111	38-132			
urrogate: n-Nonane	54.9		50.0		110	50-200			
Matrix Spike Dup (2241059-MSD1)				Source: 1	E210021-0	04	Prepared: 1	0/05/22	Analyzed: 10/05/22
Diesel Range Organics (C10-C28)	279	25.0	250	ND	112	38-132	0.359	20	
urrogate: n-Nonane	55.4		50.0		111	50-200			



LCS Dup (2241064-BSD1)

Chloride

Prepared: 10/05/22 Analyzed: 10/05/22

20

## **QC Summary Data**

Mack Energy 7 W. Compress Road Artesia NM, 88210		Project Name: Project Number: Project Manager	20	londike State ( 0046-0001 atalie Gladder				1	<b>Reported:</b> 10/6/2022 1:56:58PM
		Anions	Analyst: RAS						
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2241064-BLK1)						]	Prepared: 1	0/05/22 An	alyzed: 10/05/22
Chloride	ND	20.0							
LCS (2241064-BS1)						]	Prepared: 1	0/05/22 An	alyzed: 10/05/22
Chloride	254	20.0	250		102	90-110			

250

20.0

102

90-110

0.0540

254

#### 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:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/06/22 13:56

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:	mo	>i.7.					Bill To				Lab	Us	e Onl	v				TAT		FPA F	rogram
Project:	chop	OVE	e		A	ttention: ESS			Lab	WO#				lumb	er	1D	2D /		Standard	CWA	SDW
Project M	lanager:		1				NW COUNTY RO	AD	E2	10	150		200	40-	1000		1		- turraura	- CVIII	3577
Address:						City, State, Zip	HOBBS, NM 8824	0		-1-					d Metho	od			1 1 10		RCRA
City, State	e, Zip					hone: 575-393-9															
hone:						MAIL TO: Natalie		c.com	015	115									100	State	
mail:					1	akoatah@energy:	staffingllc.com		)y 80	ογ 8C	27	0	0	0.0		Σ			NM RO	UT AZ	TX
Report du	ie by:								RO	RO	y 80	826	601	le 30		S	×		<b>\</b>		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID				Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		верос	BEDOC			Remarks	5
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(field samp	ler), attest to	the validity	and authent	icity of this sample.	I am awa	are that tampering with o	r intentionally mislabell	ing the sample	e locatio	on, A	12	4	Samples	requiri	ng thermal	preserva	ition must	be receive	ed on ice the day t	hey are samp	led or recei
	2			may be grounds for	-	on. Ample	r intentionally mislabell ed by PUYOCM ature)	ronder	ge	row	10	VI.	packed	in ice at	an avg ten	ip above	0 but less	than 6°C	on subsequent day	/s.	
elinquishe	ed by: (Signa	Kerd	Date	0-3-22 Time				10-4-	2	Time	5.5				on ice:		ab Use	Only			
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				Aqueous, O - Other_				Containe							°C_						

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envirotech Inc.

Printed: 10/5/2022 11:14:26AM

#### **Envirotech Analytical Laboratory**

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:	10/05/22 10:3	30		Work Order ID:	E210021
Phone:	(575) 390-6397		10/05/22 10:3			Logged In By:	Caitlin Christian
Email:	Natalie@energystaffingllc.com	Date Logged In: Due Date:		00 (1 day TAT)		Logged in By:	Cattill Christian
Eman.	ratane@energystamingne.com	Duc Date.	10/00/22 17.0				
Chain of	Custody (COC)						
1. Does th	e sample ID match the COC?		Yes				
2. Does th	e number of samples per sampling site location ma	tch the COC	Yes				
3. Were sa	imples dropped off by client or carrier?		Yes	Carrier: U	JPS		
4. Was the	COC complete, i.e., signatures, dates/times, reques	sted analyses?	No	_			
5. Were al	l samples received within holding time?		Yes				
	Note: Analysis, such as pH which should be conducted in	•				Comment	s/Resolution
Sample T	i.e, 15 minute hold time, are not included in this disucssi- urn Around Time (TAT)	on.		ı			
	COC indicate standard TAT, or Expedited TAT?		Yes		Project ma	anager and tim	ne sampled not
	•		103		provided of	_	r
Sample C	ample cooler received?		Yes		provided	on coc.	
	was cooler received in good condition?		Yes				
• •	e sample(s) received intact, i.e., not broken?						
	• • • •		Yes				
	custody/security seals present?		No				
•	were custody/security seals intact?		NA				
12. Was the	e sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples ar		Yes				
	minutes of sampling	c received w/r 13					
13. If no v	visible ice, record the temperature. Actual sample	temperature: 4°C	<u>2</u>				
Sample C	ontainer						
	jueous VOC samples present?		No				
15. Are V	OC 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 no	on-VOC samples collected in the correct containers	?	Yes				
19. Is the a	ppropriate volume/weight or number of sample contain	ners collected?	Yes				
Field Lab	<u>el</u>						
	field sample labels filled out with the minimum info	ormation:					
	ample ID?		Yes				
	ate/Time Collected? ollectors name?		Yes	•			
	reservation		No				
	the COC or field labels indicate the samples were price.	reserved?	No				
	mple(s) correctly preserved?	reserveu.	NA				
	filteration required and/or requested for dissolved n	netals?	No				
	se Sample Matrix		110				
	the sample waters:	se?	No				
	does the COC specify which phase(s) is to be analy		NA NA				
		yzea:	INA				
	act Laboratory		3.7				
	imples required to get sent to a subcontract laborato	-	No				
29. was a	subcontract laboratory specified by the client and is	r so wno?	NA Sı	ubcontract Lab	o: na		
Client In	<u>struction</u>						

Date

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

**Project Information** 

Chain of Custody

						R
		Page		10	f_Ĺ	Received by OCD: 7/29/2025 2:55:00 PM
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Phone: Email:		<del></del>							gystaffingll	c.com	3015	3015											State	
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Sampled	Sampled	Matrix	Containers	Sample ID						Numbe	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		BGDOC	000	1			Remarks	
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Sample Ma	trix: S - Soil, S	d - Solid, Sg -	Sludge, A - A	Aqueous, O - Oth	her					Contain	er Typ	e: g - s	glass.				ag - ami		SS. V	VOA				
Note: San	ples are dis	carded 30 d	lays after re	sults are repo	orted unl	less other	arrangemen	ts are made.	. Hazardous	samples w	ll be re	turned	to cli	ent or	dispos	sed of	at the cli	ent ex	pense.	Ther	eport	for the anal	sis of the a	bove
samples is	applicable	only to thos	e samples	received by th	e labora	tory with	this COC. The	e liability of	the laborator	y is limited	to the	amoun	t paid	for or	the r	eport.								

to or disposed of at the client expense. The report for the analysis of the above or on the report.

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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: Klondike State Com 1H

Work Order: E210028

Job Number: 20046-0001

Received: 10/7/2022

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 10/10/22

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. Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 10/10/22

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike State Com 1H

Workorder: E210028

Date Received: 10/7/2022 10:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/7/2022 10:30:00AM, under the Project Name: Klondike State Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike State Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881

Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

**Alexa Michaels** 

Sample Custody Officer Office: 505-632-1881

labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area Lynn Jarboe

Technical Representative/Client Services

Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

Rayny Hagan Technical Representative

West Texas Midland/Odessa Area

Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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## **Sample Summary**

ſ	Mack Energy	Project Name:	Klondike State Com 1H	Reported:
1	7 W. Compress Road	Project Number:	20046-0001	Reported:
	Artesia NM, 88210	Project Manager:	Natalie Gladden	10/10/22 16:33

Client Sample ID	Lab Sample ID Matrix	Sampled	Received	Container
CP6 - 4'	E210028-01A Soil	10/04/22	10/07/22	Glass Jar, 4 oz.
CP7 - 4'	E210028-02A Soil	10/04/22	10/07/22	Glass Jar, 4 oz.
CP8 - 4'	E210028-03A Soil	10/04/22	10/07/22	Glass Jar, 4 oz.
CP9 - 4'	F210028-04A Soil	10/04/22	10/07/22	Glass Jar. 4 oz.



Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/10/2022 4:33:18PM

#### CP6 - 4' E210028-01

	E210026-01				
Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Analy	st: IY		Batch: 2241115
ND	0.0250	1	10/07/22	10/08/22	
ND	0.0250	1	10/07/22	10/08/22	
ND	0.0250	1	10/07/22	10/08/22	
ND	0.0250	1	10/07/22	10/08/22	
ND	0.0500	1	10/07/22	10/08/22	
ND	0.0250	1	10/07/22	10/08/22	
	107 %	70-130	10/07/22	10/08/22	
mg/kg	mg/kg	Analy	rst: IY		Batch: 2241115
ND	20.0	1	10/07/22	10/08/22	
	95.1 %	70-130	10/07/22	10/08/22	
mg/kg	mg/kg	Analy	rst: JL		Batch: 2241098
ND	25.0	1	10/07/22	10/08/22	
ND	50.0	1	10/07/22	10/08/22	
	116 %	50-200	10/07/22	10/08/22	
mg/kg	mg/kg	Analy	rst: RAS		Batch: 2241108
ND	200	10	10/07/22	10/07/22	
	mg/kg ND ND ND ND ND ND ND ND ND Mg/kg ND mg/kg	Result         Reporting           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           MD         0.0250           MD         20.0250           MB/kg         mg/kg           MB/kg         mg/kg           ND         20.0           95.1 %         mg/kg           ND         25.0           ND         50.0           116 %         mg/kg           mg/kg         mg/kg	Reporting           Result         Limit         Dilution           mg/kg         mg/kg         Analy           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           MD         0.0250         1           MD         20.0250         1           Mg/kg         mg/kg         Analy           ND         20.0         1           95.1 %         70-130           mg/kg         mg/kg         Analy           ND         25.0         1           ND         50.0         1           116 %         50-200           mg/kg         mg/kg         Analy	Reporting           Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/07/22           ND         0.0250         1         10/07/22           ND         0.0250         1         10/07/22           ND         0.0500         1         10/07/22           ND         0.0250         1         10/07/22           ND         0.0250         1         10/07/22           mg/kg         mg/kg         Analyst: IY           ND         20.0         1         10/07/22           mg/kg         mg/kg         Analyst: JL           ND         25.0         1         10/07/22           ND         50.0         1         10/07/22           ND         50.0         1         10/07/22           ND         50.0         1         10/07/22           Mg/kg         mg/kg         Analyst: RAS	Reporting           Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/07/22         10/08/22           ND         0.0250         1         10/07/22         10/08/22           ND         0.0250         1         10/07/22         10/08/22           ND         0.0500         1         10/07/22         10/08/22           ND         0.0250         1         10/07/22         10/08/22           ND         0.0250         1         10/07/22         10/08/22           mg/kg         mg/kg         Analyst: IY         ND         20.0         1         10/07/22         10/08/22           mg/kg         mg/kg         Analyst: IJ         ND         25.0         1         10/07/22         10/08/22           ND         25.0         1         10/07/22         10/08/22           ND         50.0         1         10/07/22         10/08/22           ND         50.0         1         10/07/22         10/08/22           ND         50.0         1         10/07/22         10/08/22

Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/10/2022 4:33:18PM

#### **CP7 - 4'**

		E210028-02				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: IY		Batch: 2241115
Benzene	ND	0.0250	1	10/07/22	10/08/22	
Ethylbenzene	ND	0.0250	1	10/07/22	10/08/22	
Toluene	ND	0.0250	1	10/07/22	10/08/22	
o-Xylene	ND	0.0250	1	10/07/22	10/08/22	
p,m-Xylene	ND	0.0500	1	10/07/22	10/08/22	
Total Xylenes	ND	0.0250	1	10/07/22	10/08/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/07/22	10/08/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	t: IY		Batch: 2241115
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/07/22	10/08/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.7 %	70-130	10/07/22	10/08/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	t: JL		Batch: 2241098
Diesel Range Organics (C10-C28)	ND	25.0	1	10/07/22	10/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/07/22	10/08/22	
Surrogate: n-Nonane		113 %	50-200	10/07/22	10/08/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	t: RAS		Batch: 2241108
Chloride	ND	200	10	10/07/22	10/07/22	



Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/10/2022 4:33:18PM

#### CP8 - 4'

#### E210028-03

		ъ .:				
		Reporting	<b>5</b> .11			
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: IY		Batch: 2241115
Benzene	ND	0.0250	1	10/07/22	10/08/22	
Ethylbenzene	ND	0.0250	1	10/07/22	10/08/22	
Toluene	ND	0.0250	1	10/07/22	10/08/22	
o-Xylene	ND	0.0250	1	10/07/22	10/08/22	
p,m-Xylene	ND	0.0500	1	10/07/22	10/08/22	
Total Xylenes	ND	0.0250	1	10/07/22	10/08/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/07/22	10/08/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	st: IY		Batch: 2241115
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/07/22	10/08/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.6 %	70-130	10/07/22	10/08/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	st: JL		Batch: 2241098
Diesel Range Organics (C10-C28)	ND	25.0	1	10/07/22	10/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/07/22	10/08/22	
Surrogate: n-Nonane		114 %	50-200	10/07/22	10/08/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: RAS		Batch: 2241108
Chloride	222	200	10	10/07/22	10/07/22	_



Chloride

# **Sample Data**

Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/10/2022 4:33:18PM

CP9 - 4'

E210028-04								
		Reporting						
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes		
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	vst: IY		Batch: 2241115		
Benzene	ND	0.0250	1	10/07/22	10/08/22			
Ethylbenzene	ND	0.0250	1	10/07/22	10/08/22			
Toluene	ND	0.0250	1	10/07/22	10/08/22			
o-Xylene	ND	0.0250	1	10/07/22	10/08/22			
p,m-Xylene	ND	0.0500	1	10/07/22	10/08/22			
Total Xylenes	ND	0.0250	1	10/07/22	10/08/22			
Surrogate: 4-Bromochlorobenzene-PID		101 %	70-130	10/07/22	10/08/22			
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	vst: IY		Batch: 2241115		
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/07/22	10/08/22			
Surrogate: 1-Chloro-4-fluorobenzene-FID		96.4 %	70-130	10/07/22	10/08/22			
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	vst: JL		Batch: 2241098		
Diesel Range Organics (C10-C28)	ND	25.0	1	10/07/22	10/08/22			
Oil Range Organics (C28-C36)	ND	50.0	1	10/07/22	10/08/22			
Surrogate: n-Nonane		111 %	50-200	10/07/22	10/08/22			
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	vst: RAS		Batch: 2241108		

200

398

10/07/22

10/07/22

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Mack Energy	Project Name:	Klondike State Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/10/2022 4:33:18PM

Artesia NM, 88210		Project Number: Project Manager:		atalie Gladden				10	/10/2022 4:33:18P
Volatile Organics by EPA 8021B Analyst: IY									Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2241115-BLK1)							Prepared: 1	0/07/22 Ana	llyzed: 10/08/22
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
o,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.14		8.00		102	70-130			
LCS (2241115-BS1)							Prepared: 10	0/07/22 Ana	lyzed: 10/08/22
Benzene	4.57	0.0250	5.00		91.5	70-130			
Ethylbenzene	4.49	0.0250	5.00		89.7	70-130			
Toluene	4.62	0.0250	5.00		92.5	70-130			
o-Xylene	4.59	0.0250	5.00		91.8	70-130			
p,m-Xylene	9.09	0.0500	10.0		90.9	70-130			
Total Xylenes	13.7	0.0250	15.0		91.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.20		8.00		103	70-130			
LCS Dup (2241115-BSD1)							Prepared: 10	0/07/22 Ana	alyzed: 10/08/22
Benzene	4.58	0.0250	5.00		91.6	70-130	0.139	20	
Ethylbenzene	4.51	0.0250	5.00		90.1	70-130	0.460	20	
Toluene	4.64	0.0250	5.00		92.7	70-130	0.253	20	
o-Xylene	4.61	0.0250	5.00		92.1	70-130	0.273	20	
p,m-Xylene	9.14	0.0500	10.0		91.4	70-130	0.514	20	
Total Xylenes	13.7	0.0250	15.0		91.6	70-130	0.433	20	
Surrogate: 4-Bromochlorobenzene-PID	8.21		8.00		103	70-130			



Mack Energy	Project Name:	Klondike State Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	•
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/10/2022 4:33:18PM

7 W. Compress Road Artesia NM, 88210		Project Number: Project Manager		046-0001 ntalie Gladden					10/10/2022 4:33:18PM
	Non	halogenated (	Organics l	by EPA 801:	5D - G	RO			Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2241115-BLK1)							Prepared: 1	0/07/22 A	nalyzed: 10/08/22
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.4	70-130			
LCS (2241115-BS2)							Prepared: 1	0/07/22 A	nalyzed: 10/10/22
Gasoline Range Organics (C6-C10)	50.4	20.0	50.0		101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.87		8.00		98.4	70-130			
LCS Dup (2241115-BSD2)							Prepared: 1	0/07/22 A	nalyzed: 10/08/22
Gasoline Range Organics (C6-C10)	43.6	20.0	50.0		87.2	70-130	14.6	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		8.00		94.1	70-130			

Mack EnergyProject Name:Klondike State Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden10/10/2022 4:33:18PM

Artesia NM, 88210		Project Manage	r: N	atalie Gladden					10/10/2022 4:33:18PM
Nonhalogenated Organics by EPA 8015D - DRO/ORO  Analyst: JL									
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2241098-BLK1)							Prepared: 1	0/07/22 A	Analyzed: 10/08/22
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	63.3		50.0		127	50-200			
LCS (2241098-BS1)							Prepared: 1	0/07/22 A	Analyzed: 10/08/22
Diesel Range Organics (C10-C28)	228	25.0	250		91.2	38-132			
Surrogate: n-Nonane	53.6		50.0		107	50-200			
Matrix Spike (2241098-MS1)				Source:	E210028-	04	Prepared: 1	0/07/22 A	Analyzed: 10/08/22
Diesel Range Organics (C10-C28)	224	25.0	250	ND	89.7	38-132			
Surrogate: n-Nonane	54.4		50.0		109	50-200			
Matrix Spike Dup (2241098-MSD1)				Source:	E210028-	04	Prepared: 1	0/07/22 A	Analyzed: 10/08/22
Diesel Range Organics (C10-C28)	232	25.0	250	ND	92.8	38-132	3.36	20	
Surrogate: n-Nonane	54.2		50.0		108	50-200			

Mack Energy 7 W. Compress Road		Project Name: Project Number:		londike State	Com 1H				Reported:
Artesia NM, 88210		Project Manager		oo40-0001 Iatalie Gladder	1				10/10/2022 4:33:18PM
		Anions	by EPA	300.0/9056	<b>A</b>				Analyst: RAS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2241108-BLK1)							Prepared:	10/07/22	Analyzed: 10/07/22
Chloride	ND	20.0							
LCS (2241108-BS1)							Prepared:	10/07/22	Analyzed: 10/07/22
Chloride	263	20.0	250		105	90-110			
Matrix Spike (2241108-MS1)				Source:	E210028-0	)1	Prepared:	10/07/22	Analyzed: 10/07/22
Chloride	234	200	250	ND	93.8	80-120			
Matrix Spike Dup (2241108-MSD1)				Source:	E210028-0	)1	Prepared:	10/07/22	Analyzed: 10/07/22
Chloride	251	200	250	ND	100	80-120	6.78	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:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/10/22 16:33

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:	Mack	4				Bill To Lab Use Only				TAT			EPA P	ogram						
Project:	Kkno	sike			At	tention: ESS		Lab	WO#			Job N	lumb	er ,	1D	2D	3D	Standard	CWA	SDWA
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City, Stat	e, Zip					one: 575-393-9048	7						T					(		
Phone:					X .	MAIL TO: Natalie@energystaffingl	lc com	Ŋ	ις				- 1				1 1		State	
mail:						koatah@energystaffingllc.com	ic.com	801	801				0		121			NM CO	10 - 111 -	TX
Report d	ue bv:				<u>D6</u>	ikoatan@energystannighe.com		DRO/ORO by 8015	GRO/DRO by 8015	втех by 8021	VOC by 8260	Metals 6010	Chloride 300.0		N	×			0	
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t or disposed of at the client expense. The report for the analysis of the above or on the report.

Central environment of the analysis of the above or on the report.

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.

Printed: 10/7/2022 11:15:50AM

#### **Envirotech Analytical Laboratory**

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:	10/07/22 10	0:30	Work Order II	D: E210028
Phone:	(575) 390-6397	Date Logged In:	10/06/22 16	:21	Logged In By:	Caitlin Christian
Email:	Natalie@energystaffingllc.com	Due Date:	10/10/22 17	7:00 (1 day TAT)		
Chain of	Custody (COC)					
	the sample ID match the COC?		Yes			
	ne number of samples per sampling site location mat	ch the COC	Yes			
	amples dropped off by client or carrier?		Yes	Carrier: U	IDC	
	e COC complete, i.e., signatures, dates/times, reques	sted analyses?	No	Carrier. <u>o</u>	<u> </u>	
	Il samples received within holding time?		Yes			
	Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssic				<u>Comm</u>	ents/Resolution
Sample T	urn Around Time (TAT)				Daring Manager and	45
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes		Project Manager and	time sampled not
Sample C	<u>Cooler</u>				provided on COC.	
7. Was a s	sample cooler received?		Yes			
8. If yes, v	was cooler received in good condition?		Yes			
9. Was the	e 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			
	e sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples are minutes of sampling visible ice, record the temperature. Actual sample	e received w/i 15	Yes			
		temperature. 4 C	<u> </u>			
Sample C			NI-			
	queous VOC samples present?		No NA			
	OC samples collected in VOA Vials?		NA NA			
	head space less than 6-8 mm (pea sized or less)?					
	trip blank (TB) included for VOC analyses?	•	NA			
	on-VOC samples collected in the correct containers		Yes			
	appropriate volume/weight or number of sample contain	iers collected?	Yes			
Field Lab						
	field sample labels filled out with the minimum info ample ID?	imation.	Yes			
	ate/Time Collected?		Yes	l		
C	ollectors name?		No			
Sample P	reservation_					
21. Does t	the COC or field labels indicate the samples were pr	eserved?	No			
22. Are sa	imple(s) correctly preserved?		NA			
24. Is lab	filteration required and/or requested for dissolved m	etals?	No			
<u>Multipha</u>	se Sample Matrix					
26. Does t	the sample have more than one phase, i.e., multiphas	se?	No			
27. If yes,	does the COC specify which phase(s) is to be analy	zed?	NA			
Subcontr	act Laboratory					
	imples required to get sent to a subcontract laborator	rv?	No			
	subcontract laboratory specified by the client and if	•		Subcontract Lab	: na	
	struction		_			
Chent In	isti uction					

Date

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Custody	Page	of

Project Information Chain	of Custody	1												1	Page	of V
Klondine State Com 1H per client 10/7/22 CC							10000					T.	-		CDA D	
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Address: City, State, Zip HOBBS, NM 8824  City, State, Zip Phone: 575-393-9048	10															
Phone: EMAIL TO: Natalie@energystaffingl	lc.com	15	15												State	
Email: Dakoatah@energystaffingllc.com		y 80	y 80	21	Q	0	0.0	- 3		NN			N	M CO	UT AZ	TX
Report due by:		ROb	ROb	y 80	/ 82€	: 601	de 30	2			¥		~			
Time Date Matrix No. of Containers Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	ВТЕХ Бу 8021	VOC by 8260	Metals 6010	Chloride 300.0	-		верос	BGDOC				Remarks	
1014 5 1 CP6 - 4°						100				<b>/</b>						
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I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislab date or time of collection is considered fraud and may be grounds for legal action.	elling the samp	ge locat	tion,	1 12	201	packe	d in Ice	at an av	g temp	above	0 but le	ess than	6°C on su	bsequent da	ys.	oled or received
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Sample Marring S. Sail Ed. Solid Se. Studge A. Agragous O. Other	Contair	er Typ	oe:g-	glass	, p - I	poly/r	olastic	c, ag -	ambe	er gla	iss, v	- VOA				
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other	us samples w	ill be r	eturne	ed to c	lient o	or disp	osed (	of at th	ne clie	nt ex	pense	. The	report f	or the an	alysis of the	e above
samples is applicable only to those samples received by the laboratory with this COC. The liability of the laborat	tory is limited	to the	amou	int pai	id for	on the	repoi	rt.		-	-			-	and the same	

to or disposed of at the client expense. The report for the analysis of the above or on the report.

Cenvironte cenvirotech

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: Klondike State Com 1H

Work Order: E210051

Job Number: 20046-0001

Received: 10/13/2022

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 10/13/22

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. Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 10/13/22

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike State Com 1H

Workorder: E210051

Date Received: 10/13/2022 10:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/13/2022 10:30:00AM, under the Project Name: Klondike State Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike State Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881

Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

**Alexa Michaels** 

Sample Custody Officer Office: 505-632-1881

labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area Lynn Jarboe

Technical Representative/Client Services

Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

West Texas Midland/Odessa Area Rayny Hagan Technical Representative

Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com



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## Sample Summary

Mack Energy	Project Name:	Klondike State Com 1H	Donoutodi
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/13/22 16:14

Client Sample ID	Lab Sample ID Matrix	Sampled	Received	Container
CP10 - 4'	E210051-01A Soil	10/11/22	10/13/22	Glass Jar, 4 oz.
CP11 - 4'	E210051-02A Soil	10/11/22	10/13/22	Glass Jar, 4 oz.



# Sample Data

Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/13/2022 4:14:08PM

#### CP10 - 4' E210051-01

		E210051-01				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
•				/st: IY		
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Allaly			Batch: 2242035
Benzene	ND	0.0250	1	10/11/22	10/13/22	
Ethylbenzene	ND	0.0250	1	10/11/22	10/13/22	
Toluene	ND	0.0250	1	10/11/22	10/13/22	
o-Xylene	ND	0.0250	1	10/11/22	10/13/22	
p,m-Xylene	ND	0.0500	1	10/11/22	10/13/22	
Total Xylenes	ND	0.0250	1	10/11/22	10/13/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/11/22	10/13/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	/st: IY		Batch: 2242035
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/11/22	10/13/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.5 %	70-130	10/11/22	10/13/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	/st: JL		Batch: 2242038
Diesel Range Organics (C10-C28)	ND	25.0	1	10/13/22	10/13/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/13/22	10/13/22	
Surrogate: n-Nonane		114 %	50-200	10/13/22	10/13/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	/st: KL		Batch: 2242034
Chloride	496	200	10	10/11/22	10/13/22	



# **Sample Data**

Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/13/2022 4:14:08PM

## CP11 - 4'

		E210051-02				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	rst: IY		Batch: 2242035
Benzene	ND	0.0250	1	10/11/22	10/13/22	
Ethylbenzene	ND	0.0250	1	10/11/22	10/13/22	
Toluene	ND	0.0250	1	10/11/22	10/13/22	
o-Xylene	ND	0.0250	1	10/11/22	10/13/22	
p,m-Xylene	ND	0.0500	1	10/11/22	10/13/22	
Total Xylenes	ND	0.0250	1	10/11/22	10/13/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/11/22	10/13/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2242035
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/11/22	10/13/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		97.5 %	70-130	10/11/22	10/13/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	rst: JL		Batch: 2242038
Diesel Range Organics (C10-C28)	ND	25.0	1	10/13/22	10/13/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/13/22	10/13/22	
Surrogate: n-Nonane		139 %	50-200	10/13/22	10/13/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	rst: KL		Batch: 2242034
Chloride	233	200	10	10/11/22	10/13/22	



Surrogate: 4-Bromochlorobenzene-PID

Mack Energy 7 W. Compress Road	Project Name: Project Number:	Klondike State Com 1H 20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/13/2022 4:14:08PM

Artesia NM, 88210		Project Number: Project Manager:		atalie Gladden				1	0/13/2022 4:14:08PM
		Volatile O	rganics b	y EPA 8021	1B				Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2242035-BLK1)						P	repared: 10	0/11/22 Ar	alyzed: 10/13/22
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
o,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.35		8.00		104	70-130			
LCS (2242035-BS1)						P	repared: 10	0/11/22 Ar	alyzed: 10/13/22
Benzene	5.30	0.0250	5.00		106	70-130			
Ethylbenzene	4.13	0.0250	5.00		82.5	70-130			
Toluene	4.45	0.0250	5.00		88.9	70-130			
o-Xylene	4.25	0.0250	5.00		84.9	70-130			
p,m-Xylene	8.41	0.0500	10.0		84.1	70-130			
Total Xylenes	12.7	0.0250	15.0		84.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.38		8.00		105	70-130			
LCS Dup (2242035-BSD1)						P	repared: 10	0/11/22 Ar	alyzed: 10/13/22
Benzene	5.65	0.0250	5.00		113	70-130	6.41	20	
Ethylbenzene	4.44	0.0250	5.00		88.7	70-130	7.19	20	
Toluene	4.76	0.0250	5.00		95.1	70-130	6.72	20	
o-Xylene	4.52	0.0250	5.00		90.4	70-130	6.28	20	
p,m-Xylene	9.01	0.0500	10.0		90.1	70-130	6.97	20	
Total Xylenes	13.5	0.0250	15.0		90.2	70-130	6.74	20	



Mack Energy	Project Name:	Klondike State Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	-
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/13/2022 4:14:08PM

Artesia NM, 88210		Project Manager:		talie Gladden				10/	13/2022 4:14:08PM
	Non	halogenated C	Organics 1	by EPA 801:	5D - G	RO			Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2242035-BLK1)							Prepared: 1	0/11/22 Anal	yzed: 10/13/22
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.78		8.00		84.7	70-130			
LCS (2242035-BS2)							Prepared: 10	0/11/22 Anal	yzed: 10/13/22
Gasoline Range Organics (C6-C10)	46.5	20.0	50.0		93.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.76		8.00		84.5	70-130			
LCS Dup (2242035-BSD2)							Prepared: 10	0/11/22 Anal	yzed: 10/13/22
Gasoline Range Organics (C6-C10)	45.3	20.0	50.0		90.5	70-130	2.77	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.74		8.00		84.2	70-130			

Mack Energy	Project Name:	Klondike State Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	-
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/13/2022 4:14:08PM

Artesia NM, 88210		Project Manage	r: Na	italie Gladder	ı			1	0/13/2022 4:14:08PN
	Nonha	logenated Or	ganics by	EPA 8015I	) - DRO	/ORO			Analyst: JL
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2242038-BLK1)							Prepared: 1	0/13/22 An	alyzed: 10/13/22
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.2		50.0		116	50-200			
LCS (2242038-BS1)							Prepared: 1	0/13/22 An	alyzed: 10/13/22
Diesel Range Organics (C10-C28)	259	25.0	250		104	38-132			
Surrogate: n-Nonane	58.0		50.0		116	50-200			
Matrix Spike (2242038-MS1)				Source:	E210051-	02	Prepared: 1	0/13/22 An	alyzed: 10/13/22
Diesel Range Organics (C10-C28)	162	25.0	250	ND	64.9	38-132			
Surrogate: n-Nonane	46.2		50.0		92.4	50-200			
Matrix Spike Dup (2242038-MSD1)				Source:	E210051-	02	Prepared: 1	0/13/22 An	alyzed: 10/13/22
Diesel Range Organics (C10-C28)	329	25.0	250	ND	132	38-132	68.0	20	R3
Surrogate: n-Nonane	63.8		50.0		128	50-200			



LCS (2242034-BS1)

Prepared: 10/11/22 Analyzed: 10/13/22

### **QC Summary Data**

Mack Energy 7 W. Compress Road Artesia NM, 88210	7 W. Compress Road Project Number: 20046-0001								
		Anions	by EPA	300.0/9056	4				Analyst: KL
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2242034-BLK1)						]	Prepared: 10	0/11/22	Analyzed: 10/13/22
Chloride	ND	20.0							

Chloride	250	20.0	250		100	90-110			
Matrix Spike (2242034-MS1)				Source:	E210048-0	1	Prepared: 10	)/11/22 Anal	yzed: 10/13/22
Chloride	14000	1000	250	14400	NR	80-120			M4
Matrix Spike Dup (2242034-MSD1)	Source:	E210048-0	1	Prepared: 10	)/11/22 Anal	yzed: 10/13/22			
Chloride	19100	1000	250	14400	NR	80-120	30.9	20	M4, R3
Chioride									

#### 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:	Klondike State Com 1H	
l	7 W. Compress Road	Project Number:	20046-0001	Reported:
l	Artesia NM, 88210	Project Manager:	Natalie Gladden	10/13/22 16:14

M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The

associated LCS spike recovery was acceptable.

R3 The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.

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	K				Bill To			No alda	La	ab Us	e On	lv				Т	AT		EPA Pi	ngram
Project: Project N	Kloc Nanager:				Attention: Address:	ESS 2724 NW COUNTY RO	-	Lab E2	WO#		16	Job N	www.	20-0	TOC	) 20			dard	CWA	SDWA
Address: City, Stat Phone:					Phone: 57	Zip HOBBS, NM 882 75-393-9048 Natalie@energystaffing		- 51	15			Analy	sis ar	nd Met	hod					State	RCRA
Email: Report d	ue by:				The state of the s	energystaffingllc.com		DRO/ORO by 8015	GRO/DRO by 8015	ıy 8021	VOC by 8260	6010	Chloride 300.0		NIN	100		NN	/ СО	UT AZ	TX
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID			Lab Number	DRO/C	GRO/E	втех by	VOC b	Metals 6010	Chloric		000	Baboc				Remarks	
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Sample Ma	trix: <b>5</b> - Soil, <b>S</b>	d - Solid, Sg -	Sludge, A -	Aqueous, O - Other	d unless other arrang	ements are made. Hazardou												eport for t	he anal	sis of the a	hove
samples is	applicable	only to thos	se samples	received by the la	boratory with this CC	C. The liability of the laborate	ory is limited t	o the a	moun	t paid	for or	the re	eport.			7-01.50			c unai	isis of the a	0046

or on the report.

Conclusion of at the client expense. The report for the analysis of the above or on the report.

Conclusion of at the client expense. The report for the analysis of the above or on the report.

Printed: 10/13/2022 12:00:46PM

#### **Envirotech Analytical Laboratory**

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:	10/13/22 1	.0:30	Work Order II	D: E210051
Phone:	(575) 390-6397	Date Logged In:	10/11/22 1	6:31	Logged In By	: Caitlin Christian
Email:	Natalie@energystaffingllc.com	Due Date:	10/13/22 1	17:00 (0 day TAT)		
	Custody (COC)					
	ne sample ID match the COC?		Yes			
	ne number of samples per sampling site location mat	ch the COC	Yes			
	amples dropped off by client or carrier?		Yes	Carrier: <u>U</u>	<u>JPS</u>	
	e COC complete, i.e., signatures, dates/times, reques	ted analyses?	No			
5. Were al	Il samples received within holding time? Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssion		Yes		<u>Comm</u>	nents/Resolution
Sample T	<u>urn Around Time (TAT)</u>					
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes		Project Manager and	time sampled not
Sample C	<u>Cooler</u>				provided on COC.	
7. Was a s	sample cooler received?		Yes			
8. If yes,	was cooler received in good condition?		Yes			
9. Was the	e 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			
	e sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples are minutes of sampling visible ice, record the temperature. Actual sample	e received w/i 15	Yes			
		temperature. 4 c	<u>~</u>			
Sample C	queous VOC samples present?		No			
	OC samples collected in VOA Vials?		NA			
	head space less than 6-8 mm (pea sized or less)?		NA			
	trip blank (TB) included for VOC analyses?		NA			
	on-VOC samples collected in the correct containers?	)	Yes			
	appropriate volume/weight or number of sample contain		Yes			
Field Lab		iers conceica.	103			
	field sample labels filled out with the minimum info	rmation:				
	ample ID?	1111411011	Yes			
	ate/Time Collected?		Yes			
C	ollectors name?		No			
Sample P	<u>reservation</u>					
	the COC or field labels indicate the samples were pr	eserved?	No			
	imple(s) correctly preserved?		NA			
24. Is lab	filteration required and/or requested for dissolved m	etals?	No			
	se Sample Matrix					
26. Does	the sample have more than one phase, i.e., multiphas	se?	No			
27. If yes,	does the COC specify which phase(s) is to be analy	zed?	NA			
Subcontr	act Laboratory					
28. Are sa	imples required to get sent to a subcontract laborator	ry?	No			
29. Was a	subcontract laboratory specified by the client and if	so who?	NA	Subcontract Lab	o: na	
Client In	astruction_					
<u>eneme ra</u>	in detroit					

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Project Information	e Con	n H-per Client 10/3/22 CO	of Custod	y										Page L	of _
Client: Mack Project: Klandike		Bill To Attention: ESS					Use O					TAT			rogram
Project: Project Manager: Address:		Address: 2724 NW COUNTY R City, State, Zip HOBBS, NM 882	THE RESERVE TO SERVE THE PARTY OF THE PARTY	E2	W0#	5	20 Ana	Num Vsis a	o-OO	OL	2D	3D	Standard	CWA	SDW
City, State, Zip Phone: Email: Report due by:		Phone: 575-393-9048  EMAIL TO: Natalie@energystaffing  Dakoatah@energystaffingllc.com	llc.com	DRO/ORO by 8015	GRO/DRO by 8015	8021				NM	×		NM CO	State UT AZ	
Time Date Sampled Sampled Sampled Sampled	No. of Containers	Sample ID	Lab Number	DRO/OR	GRO/DR	BTEX by 8021	VOC by 8260 Metals 6010	Chloride 300.0		верос	BGDOC			Remarks	
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Additional Instructions:															
		ticity of this sample. I am aware that tampering with or intentionally mislab	lling the sample	locatio	on,		Sampl	es requi	ring thermal ;	preservat	tion must	be receive	ed on ice the day t	ney are sample	d or receiv
date or time of collection is considered. Relinquished by: (Signature)	Date	Time Received by (Signaruse)	Deth	114	Time la	35)			on ice:		b Us	e Only	on subsequent day	s.	
Relinquished by: (Signature)	Date	4/22 4.15 aliver	10   13     Date	27	Time	30	) T1			<u>T2</u>			<u>T3</u>		
		Sales and the sales are a second as the sale	Container		2 -14		AVG	Tem	p C	10 P. S.					

nt or disposed of at the client expense. The report for the analysis of the above or on the report.

Page 161 of 340

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: Klondike St Com 1H

Work Order: E210080

Job Number: 20046-0001

Received: 10/15/2022

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 10/18/22

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. Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 10/18/22

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike St Com 1H

Workorder: E210080

Date Received: 10/15/2022 11:40:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/15/2022 11:40:00AM, under the Project Name: Klondike St Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike St Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881

Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

**Alexa Michaels** 

Sample Custody Officer Office: 505-632-1881

labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area Lynn Jarboe

Technical Representative/Client Services

Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

West Texas Midland/Odessa Area Rayny Hagan Technical Representative

Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com



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## **Sample Summary**

			The state of the s	
Γ	Mack Energy	Project Name:	Klondike St Com 1H	Reported:
١	7 W. Compress Road	Project Number:	20046-0001	Reported.
١	Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/22 16:01

Client Sample ID	Lab Sample ID Matrix	Sampled Re	eceived Container	
CP12 - 4'	E210080-01A Soil	10/12/22 10/	0/15/22 Glass Jar, 2 oz.	
CP13 - 4'	E210080-02A Soil	10/12/22 10/	0/15/22 Glass Jar, 2 oz.	



# Sample Data

Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/2022 4:01:44PM

#### CP12 - 4' E210080-01

	E210000-01				
P acult	Reporting	Dibuti	ion Prepared	Analyzad	Notes
Result	Limit	Diluti	ion Frepared	Allalyzed	Notes
mg/kg	mg/kg	A	Analyst: RKS		Batch: 2243006
ND	0.0250	1	10/17/22	10/18/22	
ND	0.0250	1	10/17/22	10/18/22	
ND	0.0250	1	10/17/22	10/18/22	
ND	0.0250	1	10/17/22	10/18/22	
ND	0.0500	1	10/17/22	10/18/22	
ND	0.0250	1	10/17/22	10/18/22	
	96.7 %	70-130	10/17/22	10/18/22	
	93.3 %	70-130	10/17/22	10/18/22	
	103 %	70-130	10/17/22	10/18/22	
	105 /0	70-130		10/10/22	
mg/kg	mg/kg		Analyst: RKS	10/10/22	Batch: 2243006
mg/kg ND				10/18/22	Batch: 2243006
	mg/kg		Analyst: RKS		Batch: 2243006
	mg/kg 20.0	A 1	Analyst: RKS 10/17/22	10/18/22	Batch: 2243006
	mg/kg 20.0 96.7 %	70-130	10/17/22 10/17/22	10/18/22	Batch: 2243006
	mg/kg 20.0 96.7 % 93.3 %	70-130 70-130 70-130	10/17/22 10/17/22 10/17/22	10/18/22 10/18/22 10/18/22	Batch: 2243006  Batch: 2243013
ND	mg/kg 20.0 96.7 % 93.3 % 103 %	70-130 70-130 70-130	10/17/22 10/17/22 10/17/22 10/17/22	10/18/22 10/18/22 10/18/22	
ND mg/kg	mg/kg 20.0  96.7 %  93.3 %  103 %  mg/kg	70-130 70-130 70-130	Analyst: RKS 10/17/22 10/17/22 10/17/22 10/17/22 Analyst: JL	10/18/22 10/18/22 10/18/22 10/18/22	
ND  mg/kg  ND	mg/kg 20.0  96.7 %  93.3 %  103 %  mg/kg  25.0	70-130 70-130 70-130	10/17/22 10/17/22 10/17/22 10/17/22 Analyst: JL 10/17/22	10/18/22 10/18/22 10/18/22 10/18/22 10/18/22	
ND  mg/kg  ND	mg/kg 20.0  96.7 %  93.3 %  103 %  mg/kg  25.0  50.0	A 1 70-130 70-130 70-130 A 1 1 50-200	Analyst: RKS  10/17/22  10/17/22  10/17/22  10/17/22  Analyst: JL  10/17/22  10/17/22	10/18/22 10/18/22 10/18/22 10/18/22 10/18/22 10/18/22	
	ND ND ND ND	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           ND         0.0250           96.7 %         93.3 %	Result         Limit         Dilut           mg/kg         mg/kg         A           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           96.7 %         70-130	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0500         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           96.7 %         70-130         10/17/22           93.3 %         70-130         10/17/22	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/17/22         10/18/22           ND         0.0500         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           96.7 %         70-130         10/17/22         10/18/22           93.3 %         70-130         10/17/22         10/18/22



## **Sample Data**

Mack EnergyProject Name:Klondike St Com 1H7 W. Compress RoadProject Number:20046-0001Reported:Artesia NM, 88210Project Manager:Natalie Gladden10/18/2022 4:01:44PM

#### CP13 - 4' E210080-02

	1210000-02				
Result	Limit	Dilut	tion Prepared	Analyzed	Notes
mg/kg	mg/kg	A	Analyst: RKS		Batch: 2243006
ND	0.0250	1	10/17/22	10/18/22	
ND	0.0250	1	10/17/22	10/18/22	
ND	0.0250	1	10/17/22	10/18/22	
ND	0.0250	1	10/17/22	10/18/22	
ND	0.0500	1	10/17/22	10/18/22	
ND	0.0250	1	10/17/22	10/18/22	
	97.5 %	70-130	10/17/22	10/18/22	
	101 %	70-130	10/17/22	10/18/22	
	103 %	70-130	10/17/22	10/18/22	
mg/kg	mg/kg	mg/kg Analyst: RKS			Batch: 2243006
ND	20.0	1	10/17/22	10/18/22	
	97.5 %	70-130	10/17/22	10/18/22	
	101 %	70-130	10/17/22	10/18/22	
	103 %	70-130	10/17/22	10/18/22	
mg/kg	mg/kg	A	Analyst: JL		Batch: 2243013
ND	25.0	1	10/17/22	10/18/22	_
ND	50.0	1	10/17/22	10/18/22	
	93.9 %	50-200	10/17/22	10/18/22	
mg/kg	mg/kg	P	Analyst: RAS		Batch: 2243005
	ND	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           ND         0.0250           97.5 %         101 %           103 %         mg/kg           ND         20.0           97.5 %         101 %           103 %         103 %           mg/kg         mg/kg           ND         25.0           ND         50.0	Reporting           Result         Limit         Dilute           mg/kg         mg/kg         mg/kg           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           97.5 %         70-130         101 %           103 %         70-130         101 %           ND         20.0         1           97.5 %         70-130         101 %           101 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 %           103 %         70-130         101 % <td>Reporting           Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0500         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           101%         70-130         10/17/22           103%         70-130         10/17/22           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/17/22           101%         70-130         10/17/22           103%         70-130         10/17/22           103%         70-130         10/17/22           103%         70-130         10/17/22           103%         70-130         10/17/22           ND         25.0         1         10/17/22           ND         50.0         1         10/17/22</td> <td>Reporting         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0500         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           101%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22           101%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22&lt;</td>	Reporting           Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0500         1         10/17/22           ND         0.0250         1         10/17/22           ND         0.0250         1         10/17/22           101%         70-130         10/17/22           103%         70-130         10/17/22           mg/kg         mg/kg         Analyst: RKS           ND         20.0         1         10/17/22           101%         70-130         10/17/22           103%         70-130         10/17/22           103%         70-130         10/17/22           103%         70-130         10/17/22           103%         70-130         10/17/22           ND         25.0         1         10/17/22           ND         50.0         1         10/17/22	Reporting         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RKS           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0500         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           ND         0.0250         1         10/17/22         10/18/22           101%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22           101%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22           103%         70-130         10/17/22         10/18/22<



#### **QC Summary Data**

Klondike St Com 1H Mack Energy Project Name: Reported: Project Number: 7 W. Compress Road 20046-0001 Artesia NM, 88210 Project Manager: Natalie Gladden 10/18/2022 4:01:44PM **Volatile Organic Compounds by EPA 8260B** Analyst: RKS Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2243006-BLK1) Prepared: 10/17/22 Analyzed: 10/17/22 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 0.0500 ND 0.0250 Total Xylenes Surrogate: Bromofluorobenzene 0.491 0.500 98.1 70-130 Surrogate: 1,2-Dichloroethane-d4 0.478 0.500 95.6 70-130 0.500 103 70-130 Surrogate: Toluene-d8 0.513 LCS (2243006-BS1) Prepared: 10/17/22 Analyzed: 10/17/22 2.56 0.0250 2.50 103 70-130 Benzene 2.58 2.50 103 70-130 Ethylbenzene 0.0250 2.52 0.0250 2.50 101 70-130 2.42 70-130 0.0250 2.50 96.9 o-Xylene 4.82 5.00 96.4 70-130 p,m-Xylene 0.0500 7.24 0.0250 7.50 96.6 70-130 Total Xylenes Surrogate: Bromofluorobenzene 0.494 0.500 98.7 70-130 0.500 95.1 70-130 Surrogate: 1,2-Dichloroethane-d4 0.476 70-130 Surrogate: Toluene-d8 0.500 0.515 Matrix Spike (2243006-MS1) Source: E210077-02 Prepared: 10/17/22 Analyzed: 10/17/22 2.13 0.0250 2.50 ND 85.1 48-131 45-135 Ethylbenzene 2.17 0.0250 2.50 ND 86.9 84.4 48-130 Toluene 2.11 0.0250 2.50 ND 2.08 0.0250 2.50 ND 83.2 43-135 o-Xylene 4.07 5.00 ND 81.4 43-135 p,m-Xylene 0.0500 Total Xylenes 6.15 0.0250 7.50 ND 82.0 43-135 Surrogate: Bromofluorobenzene 0.506 0.500 101 70-130 0.457 0.500 91.3 70-130 Surrogate: 1,2-Dichloroethane-d4 0.500 70-130 0.515 Surrogate: Toluene-d8 Matrix Spike Dup (2243006-MSD1) Source: E210077-02 Prepared: 10/17/22 Analyzed: 10/17/22 2.48 0.0250 2.50 ND 99.0 48-131 15.1 23 2.54 0.0250 2.50 ND 45-135 15.6 27 Ethylbenzene 2.51 ND 48-130 17.5 24 2.50 101 Toluene 0.0250



2.33

4.74

7.08

0.468

0.443

0.523

0.0250

0.0500

0.0250

2.50

5.00

7.50

0.500

0.500

0.500

ND

ND

ND

93.3

94.9

94.4

93.5

88.5

43-135

43-135

43-135

70-130

70-130

70-130

11.5

15.3

14.0

27

27

27

o-Xylene

p,m-Xylene

Total Xylenes

Surrogate: Toluene-d8

Surrogate: Bromofluorobenzene

Surrogate: 1,2-Dichloroethane-d4

Surrogate: 1,2-Dichloroethane-d4

Surrogate: Toluene-d8

## **QC Summary Data**

Mack EnergyProject Name:Klondike St Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden10/18/20224:01:44PM

Artesia NM, 88210		Project Manager	r: Na	atalie Gladden					10/18/2022 4:01:44PM
	Nor	halogenated (	Organics l	by EPA 801	5D - GI	RO			Analyst: RKS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2243006-BLK1)							Prepared: 1	0/17/22	Analyzed: 10/17/22
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.491		0.500		98.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.478		0.500		95.6	70-130			
Surrogate: Toluene-d8	0.513		0.500		103	70-130			
LCS (2243006-BS2)							Prepared: 1	0/17/22	Analyzed: 10/17/22
Gasoline Range Organics (C6-C10)	58.2	20.0	50.0		116	70-130			
Surrogate: Bromofluorobenzene	0.498		0.500		99.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.497		0.500		99.4	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			
Matrix Spike (2243006-MS2)				Source:	E210077-0	)2	Prepared: 1	0/17/22	Analyzed: 10/17/22
Gasoline Range Organics (C6-C10)	54.0	20.0	50.0	ND	108	70-130			
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		94.9	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			
Matrix Spike Dup (2243006-MSD2)				Source:	E210077-0	)2	Prepared: 1	0/17/22	Analyzed: 10/17/22
Gasoline Range Organics (C6-C10)	52.1	20.0	50.0	ND	104	70-130	3.68	20	
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			

0.500

0.500

0.466

0.522

93.1

104

70-130

70-130



Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	-
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/2022 4:01:44PM

Artesia NM, 88210		Project Manage	r: Na	italie Gladder	1			1	10/18/2022 4:01:44PN			
	Nonha	logenated Or	ganics by	EPA 8015I	) - DRO	/ORO		Analyst: JL				
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit				
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes			
Blank (2243013-BLK1)							Prepared: 1	0/17/22 A1	nalyzed: 10/18/22			
Diesel Range Organics (C10-C28)	ND	25.0										
Dil Range Organics (C28-C36)	ND	50.0										
urrogate: n-Nonane	53.5		50.0		107	50-200						
LCS (2243013-BS1)							Prepared: 1	0/17/22 Aı	nalyzed: 10/18/22			
Diesel Range Organics (C10-C28)	262	25.0	250		105	38-132						
urrogate: n-Nonane	52.2		50.0		104	50-200						
Matrix Spike (2243013-MS1)				Source:	E210078-	03	Prepared: 1	0/17/22 Aı	nalyzed: 10/18/22			
Diesel Range Organics (C10-C28)	258	25.0	250	ND	103	38-132						
urrogate: n-Nonane	47.5		50.0		95.1	50-200						
Matrix Spike Dup (2243013-MSD1)				Source:	E210078-	03	Prepared: 1	0/17/22 Aı	nalyzed: 10/18/22			
Diesel Range Organics (C10-C28)	255	25.0	250	ND	102	38-132	0.814	20				
urrogate: n-Nonane	46.2		50.0		92.4	50-200						



### **QC Summary Data**

Mack Energy 7 W. Compress Road		Project Name: Project Number:		Ilondike St Co 0046-0001	m 1H				Reported:
Artesia NM, 88210		Project Manager		Jatalie Gladder	1				10/18/2022 4:01:44PM
		Anions	by EPA	300.0/9056 <i>E</i>	4				Analyst: RAS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2243005-BLK1)							Prepared:	10/17/22 A	nalyzed: 10/17/22
Chloride	ND	20.0							
LCS (2243005-BS1)							Prepared:	10/17/22 A	nalyzed: 10/17/22
Chloride	248	20.0	250		99.2	90-110			
Matrix Spike (2243005-MS1)				Source:	E210076-2	21	Prepared:	10/17/22 A	nalyzed: 10/17/22
Chloride	1430	20.0	250	1090	138	80-120			M2
Matrix Spike Dup (2243005-MSD1)				Source:	E210076-2	21	Prepared:	10/17/22 A	nalyzed: 10/17/22
Chloride	1380	20.0	250	1090	118	80-120	3.47	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**

ſ	Mack Energy	Project Name:	Klondike St Com 1H	
l	7 W. Compress Road	Project Number:	20046-0001	Reported:
١	Artesia NM, 88210	Project Manager:	Natalie Gladden	10/18/22 16:01

M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

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

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



roject Information	Chain of Chain	Custody										Page	of _(
lient: MACK ENCRCY roject: KLONDIKE ST CON roject Manager:	Address: 2/24 NW COUNTY ROAD	Lab WO# Job Num					nly Number DY (0-00) lysis and Met	10	20		and the second s	EPA P	SDWA
ity, State, Zip hone: mail: eport due by:	City, State, Zip HOBBS, NM 88240 Phone: 575-393-9048 EMAIL TO: Natalie@energystaffingllc.c Dakoatah@energystaffingllc.com	om	DRO/ORO by 8015	GRO/DRO by 8015	8021		0	N	1		NM CO	State UT AZ	RCRA
Time Date Matrix No. of Containers Sampled	e ID	Lab Number	DRO/OF	GRO/DR	ВТЕХ by 8021	VOC by 8260 Metals 6010	Chloride 300.0	BGDOC	0000			Remarks	
10/11/22 5 1	P12-4-	1						X					
Kelinin S 1	P12-4-	2	1			_		X					
					4	+		+	+				
			+	+	-	-		+	+				
			+	+	+	-		+	+				
			1	+		+			+				
			1	1				Ť	+				
									T				
									1				
Additional Instructions:													
(field sampler), attest to the validity and authenticity of late or time of collection is considered fraud and may be	is sample. I am aware that tampering with or intentionally mislabelling ounds for legal action.	the sample lo	ocation	n,		Sam	ples requiring ther ked in ice at an avg	mal prese temp abo			ceived on ice the day 6 °C on subsequent da	02.40.0	led or receive
elinguished by: (Signature) Date	Time Received by: (Signature)	Pob	2	Ö2	3	Re	ceived on ic	e: (	Lab	Use On N	ıly		
elinquished by: (Signature)  Date	Time Received by: (Signature)	0/15/ Date	25	Time		T1			)		<u>T3</u>		
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueo	0 - Other C e reported unless other arrangements are made. Hazardous sar		Туре:	g - gl	lass, p		plastic, ag - a		lass,	v - VOA			

Printed: 10/17/2022 8:44:41AM

#### **Envirotech Analytical Laboratory**

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:	10/15/22 1	1:40	Work	Order ID:	E210080
Client:							
Phone:	(575) 390-6397	Date Logged In:	10/15/22 1		Logge	d In By:	Caitlin Christian
Email:	Natalie@energystaffingllc.com	Due Date:	10/16/22 1	7:00 (1 day TAT)			
Chain of	Custody (COC)						
	the sample ID match the COC?		Yes				
	ne number of samples per sampling site location materials.	tch the COC	Yes				
	amples dropped off by client or carrier?		Yes	Carrier: <u>U</u>	TDC		
	e COC complete, i.e., signatures, dates/times, reques	sted analyses?	No	Carrier. <u>c</u>	<u> </u>		
	Il samples received within holding time?	sied analyses.	Yes				
	Note: Analysis, such as pH which should be conducted in	n the field,				<b>.</b>	(D. 1.4)
	i.e, 15 minute hold time, are not included in this disucssion	on.		1		Comment	s/Resolution
	urn Around Time (TAT)				Project Manage	r and tin	na samplad not
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes		* *		ne sampled not
Sample C					provided on CO	C.	
	sample cooler received?		Yes				
•	was cooler received in good condition?		Yes				
	e 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				
	e sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples ar minutes of sampling /isible ice, record the temperature. Actual sample	e received w/i 15	Yes				
		temperature. 4 t	<u>c</u>				
Sample C			Nie				
	queous VOC samples present? OC samples collected in VOA Vials?		No NA				
	head space less than 6-8 mm (pea sized or less)?		NA NA				
			NA NA				
	trip blank (TB) included for VOC analyses?	ก					
	on-VOC samples collected in the correct containers' appropriate volume/weight or number of sample contain		Yes Yes				
Field Lab	· · ·	ners conected?	105				
	field sample labels filled out with the minimum info	ormation:					
	ample ID?	THREE COL	Yes				
	ate/Time Collected?		Yes				
C	ollectors name?		No				
	<u>reservation</u>						
	the COC or field labels indicate the samples were pr	reserved?	No				
	imple(s) correctly preserved?		NA				
24. Is lab	filteration required and/or requested for dissolved n	netals?	No				
	se Sample Matrix						
	the sample have more than one phase, i.e., multipha		No				
27. If yes,	does the COC specify which phase(s) is to be analy	yzed?	NA				
Subcontr	act Laboratory						
	imples required to get sent to a subcontract laborato	ry?	No				
29. Was a	subcontract laboratory specified by the client and in	f so who?	NA	Subcontract Lab	o: na		
Client In	struction						
<u> </u>	<u> </u>						

Date

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: Klondike State Com 1H

Work Order: E210110

Job Number: 20046-0001

Received: 10/20/2022

Revision: 3

Report Reviewed By:

Walter Hinchman Laboratory Director 6/19/24

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.

Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.

Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.

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

Date Reported: 6/19/24

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike State Com 1H

Workorder: E210110

Date Received: 10/20/2022 11:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/20/2022 11:00:00AM, under the Project Name: Klondike State Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike State Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881 Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area Lynn Jarboe

Laboratory Technical Representative Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

Michelle Golzales

Client Representative

Office: 505-421-LABS(5227)

Cell: 505-947-8222

mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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## **Sample Summary**

	Mack Energy	Project Name:	Klondike State Com 1H	Donoutoda
l	7 W. Compress Road	Project Number:	20046-0001	Reported:
l	Artesia NM, 88210	Project Manager:	Natalie Gladden	06/19/24 11:21

Client Sample ID	Lab Sample ID Matrix	Sampled	Received	Container
COMP 14 - 4'	E210110-01A Soil	10/18/22	10/20/22	Glass Jar, 4 oz.
COMP 15 - 4'	E210110-02A Soil	10/18/22	10/20/22	Glass Jar, 4 oz.
COMP 16 - 4'	E210110-03A Soil	10/18/22	10/20/22	Glass Jar, 4 oz.



## **Sample Data**

Mack Energy	Project Name:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/19/2024 11:21:52AM

#### COMP 14 - 4' E210110-01

		Reporting					
Analyte	Result	Limit	Dilu	ıtion	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B		mg/kg	Analyst: IY			Batch: 2243087	
Benzene	ND	0.0250	1	1	10/20/22	10/20/22	
Ethylbenzene	ND	0.0250	1	1	10/20/22	10/20/22	
Toluene	ND	0.0250	1	1	10/20/22	10/20/22	
o-Xylene	ND	0.0250	1	1	10/20/22	10/20/22	
p,m-Xylene	ND	0.0500	1	1	10/20/22	10/20/22	
Total Xylenes	ND	0.0250	1	1	10/20/22	10/20/22	
Surrogate: Bromofluorobenzene		98.4 %	70-130		10/20/22	10/20/22	
Surrogate: 1,2-Dichloroethane-d4		107 %	70-130		10/20/22	10/20/22	
Surrogate: Toluene-d8		99.9 %	70-130		10/20/22	10/20/22	
Nonhalogenated Organics by EPA 8015D - GRO		А		Analyst: IY			
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg		Anaiyst:	11		Batch: 2243087
Monhalogenated Organics by EPA 8015D - GRO Gasoline Range Organics (C6-C10)	ND	20.0	1		10/20/22	10/20/22	Batch: 2243087
						10/20/22 10/20/22	Batch: 2243087
Gasoline Range Organics (C6-C10)		20.0	1		10/20/22		Batch: 2243087
Gasoline Range Organics (C6-C10)  Surrogate: Bromofluorobenzene		20.0 98.4 %	70-130		10/20/22 10/20/22	10/20/22	Batch: 2243087
Gasoline Range Organics (C6-C10)  Surrogate: Bromofluorobenzene  Surrogate: 1,2-Dichloroethane-d4		20.0 98.4 % 107 %	70-130 70-130 70-130		10/20/22 10/20/22 10/20/22 10/20/22	10/20/22 10/20/22	Batch: 2243087  Batch: 2243098
Gasoline Range Organics (C6-C10)  Surrogate: Bromofluorobenzene  Surrogate: 1,2-Dichloroethane-d4  Surrogate: Toluene-d8	ND	20.0 98.4 % 107 % 99.9 %	70-130 70-130 70-130	I	10/20/22 10/20/22 10/20/22 10/20/22	10/20/22 10/20/22	
Gasoline Range Organics (C6-C10)  Surrogate: Bromofluorobenzene  Surrogate: 1,2-Dichloroethane-d4  Surrogate: Toluene-d8  Nonhalogenated Organics by EPA 8015D - DRO/ORO	ND mg/kg	20.0 98.4 % 107 % 99.9 % mg/kg	70-130 70-130 70-130	I	10/20/22 10/20/22 10/20/22 10/20/22	10/20/22 10/20/22 10/20/22	
Gasoline Range Organics (C6-C10)  Surrogate: Bromofluorobenzene  Surrogate: 1,2-Dichloroethane-d4  Surrogate: Toluene-d8  Nonhalogenated Organics by EPA 8015D - DRO/ORO  Diesel Range Organics (C10-C28)	ND mg/kg ND	20.0 98.4 % 107 % 99.9 % mg/kg 25.0	70-130 70-130 70-130	I	10/20/22 10/20/22 10/20/22 10/20/22 JL 10/20/22	10/20/22 10/20/22 10/20/22 10/21/22	
Gasoline Range Organics (C6-C10)  Surrogate: Bromofluorobenzene  Surrogate: 1,2-Dichloroethane-d4  Surrogate: Toluene-d8  Nonhalogenated Organics by EPA 8015D - DRO/ORO  Diesel Range Organics (C10-C28)  Oil Range Organics (C28-C36)	ND mg/kg ND	20.0 98.4 % 107 % 99.9 % mg/kg 25.0 50.0	70-130 70-130 70-130 70-130	I	10/20/22 10/20/22 10/20/22 10/20/22 JL 10/20/22 10/20/22 10/20/22	10/20/22 10/20/22 10/20/22 10/21/22 10/21/22	



## **Sample Data**

Mack EnergyProject Name:Klondike State Com 1H7 W. Compress RoadProject Number:20046-0001Reported:Artesia NM, 88210Project Manager:Natalie Gladden6/19/2024 11:21:52AM

#### **COMP 15 - 4'**

#### E210110-02

		Reporting				
Analyte	Result	Limit	Dilutio	on Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B		mg/kg	mg/kg Analyst: IY			Batch: 2243087
Benzene	ND	0.0250	1	10/20/22	10/20/22	
Ethylbenzene	ND	0.0250	1	10/20/22	10/20/22	
Toluene	ND	0.0250	1	10/20/22	10/20/22	
o-Xylene	ND	0.0250	1	10/20/22	10/20/22	
p,m-Xylene	ND	0.0500	1	10/20/22	10/20/22	
Total Xylenes	ND	0.0250	1	10/20/22	10/20/22	
Surrogate: Bromofluorobenzene		97.6 %	70-130	10/20/22	10/20/22	
Surrogate: 1,2-Dichloroethane-d4		103 %	70-130	10/20/22	10/20/22	
Surrogate: Toluene-d8		98.8 %	70-130	10/20/22	10/20/22	
Nonhalogenated Organics by EPA 8015D - GRO		mg/kg	Aı	nalyst: IY		Batch: 2243087
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/20/22	10/20/22	
Surrogate: Bromofluorobenzene		97.6 %	70-130	10/20/22	10/20/22	
Surrogate: 1,2-Dichloroethane-d4		103 %	70-130	10/20/22	10/20/22	
Surrogate: Toluene-d8		98.8 %	70-130	10/20/22	10/20/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO		mg/kg	Aı	nalyst: JL		Batch: 2243098
Diesel Range Organics (C10-C28)	ND	25.0	1	10/20/22	10/21/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/20/22	10/21/22	
Surrogate: n-Nonane		104 %	50-200	10/20/22	10/21/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Aı	nalyst: RAS		Batch: 2243091
Chloride	ND	200	10	10/20/22	10/21/22	



Mack EnergyProject Name:Klondike State Com 1H7 W. Compress RoadProject Number:20046-0001Reported:Artesia NM, 88210Project Manager:Natalie Gladden6/19/2024 11:21:52AM

#### **COMP 16 - 4'**

#### E210110-03

		Reporting					
Analyte	Result	Limit	Dil	ution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg		Analyst:	: IY		Batch: 2243087
Benzene	ND	0.0250		1	10/20/22	10/20/22	
Ethylbenzene	ND	0.0250		1	10/20/22	10/20/22	
Toluene	ND	0.0250		1	10/20/22	10/20/22	
o-Xylene	ND	0.0250		1	10/20/22	10/20/22	
p,m-Xylene	ND	0.0500		1	10/20/22	10/20/22	
Total Xylenes	ND	0.0250		1	10/20/22	10/20/22	
Surrogate: Bromofluorobenzene		98.5 %	70-130		10/20/22	10/20/22	
Surrogate: 1,2-Dichloroethane-d4		106 %	70-130		10/20/22	10/20/22	
Surrogate: Toluene-d8		100 %	70-130		10/20/22	10/20/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg		Analyst:	: IY		Batch: 2243087
Gasoline Range Organics (C6-C10)	ND	20.0		1	10/20/22	10/20/22	
Surrogate: Bromofluorobenzene		98.5 %	70-130		10/20/22	10/20/22	
Surrogate: 1,2-Dichloroethane-d4		106 %	70-130		10/20/22	10/20/22	
Surrogate: Toluene-d8		100 %	70-130		10/20/22	10/20/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg		Analyst:	: Л		Batch: 2243098
Diesel Range Organics (C10-C28)	ND	25.0		1	10/20/22	10/21/22	
Oil Range Organics (C28-C36)	ND	50.0		1	10/20/22	10/21/22	
Surrogate: n-Nonane		109 %	50-200		10/20/22	10/21/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg		Analyst	: RAS		Batch: 2243091
Chloride	ND	200		10	10/20/22	10/21/22	



Mack EnergyProject Name:Klondike State Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden6/19/2024 11:21:52AM

Artesia NM, 88210		Project Manager		atalie Gladden				6/1	9/2024 11:21:52AN
•	V	olatile Organi		unds by EP.	A 82601	B			Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2243087-BLK1)							Prepared: 10	0/20/22 Anal	yzed: 10/20/22
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	0.488		0.500		97.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.569		0.500		114	70-130			
Surrogate: Toluene-d8	0.495		0.500		98.9	70-130			
LCS (2243087-BS1)							Prepared: 10	0/20/22 Anal	yzed: 10/20/22
Benzene	2.24	0.0250	2.50		89.6	70-130			
Ethylbenzene	2.24	0.0250	2.50		89.5	70-130			
Toluene	2.28	0.0250	2.50		91.1	70-130			
o-Xylene	2.34	0.0250	2.50		93.5	70-130			
p,m-Xylene	4.66	0.0500	5.00		93.3	70-130			
Total Xylenes	7.00	0.0250	7.50		93.4	70-130			
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.565		0.500		113	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.4	70-130			
LCS Dup (2243087-BSD1)							Prepared: 10	0/20/22 Anal	yzed: 10/20/22
Benzene	2.23	0.0250	2.50		89.3	70-130	0.358	23	
Ethylbenzene	2.26	0.0250	2.50		90.5	70-130	1.16	27	
Toluene	2.31	0.0250	2.50		92.2	70-130	1.18	24	
o-Xylene	2.38	0.0250	2.50		95.0	70-130	1.59	27	
o,m-Xylene	4.69	0.0500	5.00		93.9	70-130	0.663	27	
Total Xylenes	7.07	0.0250	7.50		94.3	70-130	0.974	27	
Surrogate: Bromofluorobenzene	0.507		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.542		0.500		108	70-130			
-									

0.500

99.6

70-130



Surrogate: Toluene-d8

0.498

Mack EnergyProject Name:Klondike State Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden6/19/2024 11:21:52AM

Nonhalogenated	Organics	by EPA	8015D -	GRO

Anal	

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

Blank (2243087-BLK1)						Prepared: 10	0/20/22 Analyz	zed: 10/20/22
Gasoline Range Organics (C6-C10)	ND	20.0						
Surrogate: Bromofluorobenzene	0.488		0.500	97.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.569		0.500	114	70-130			
Surrogate: Toluene-d8	0.495		0.500	98.9	70-130			
LCS (2243087-BS2)						Prepared: 10	0/20/22 Analyz	zed: 10/20/22
Gasoline Range Organics (C6-C10)	56.4	20.0	50.0	113	70-130			
Surrogate: Bromofluorobenzene	0.483		0.500	96.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.544		0.500	109	70-130			
Surrogate: Toluene-d8	0.502		0.500	100	70-130			
LCS Dup (2243087-BSD2)						Prepared: 10	0/20/22 Analyz	zed: 10/21/22
Gasoline Range Organics (C6-C10)	51.5	20.0	50.0	103	70-130	9.18	20	
Surrogate: Bromofluorobenzene	0.488		0.500	97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.554		0.500	111	70-130			
Surrogate: Toluene-d8	0.508		0.500	102	70-130			



Mack EnergyProject Name:Klondike State Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden6/19/2024 11:21:52AM

Artesia NM, 88210		Project Manage	r: Na	italie Gladder	n			(	6/19/2024 11:21:52AN
	Nonha	logenated Or	ganics by	EPA 8015I	D - DRO	/ORO			Analyst: JL
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2243098-BLK1)							Prepared: 1	0/20/22 A1	nalyzed: 10/21/22
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	57.6		50.0		115	50-200			
LCS (2243098-BS1)							Prepared: 1	0/20/22 Aı	nalyzed: 10/21/22
Diesel Range Organics (C10-C28)	220	25.0	250		88.2	38-132			
Surrogate: n-Nonane	52.0		50.0		104	50-200			
Matrix Spike (2243098-MS1)				Source:	Source: E210115-05		Prepared: 1	0/20/22 Aı	nalyzed: 10/21/22
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.1	38-132			
Surrogate: n-Nonane	49.8		50.0		99.6	50-200			
Matrix Spike Dup (2243098-MSD1)				Source:	E210115-0	05	Prepared: 1	0/20/22 A1	nalyzed: 10/21/22
Diesel Range Organics (C10-C28)	235	25.0	250	ND	94.1	38-132	1.02	20	
Surrogate: n-Nonane	53.4		50.0		107	50-200			



Mack Energy		Project Name:		Clondike State	Com 1H				Re	eported:
7 W. Compress Road Artesia NM, 88210		Project Number: Project Manager:		0046-0001 Vatalie Gladder	1				6/19/2024	4 11:21:52AM
		Anions	by EPA	300.0/9056	4				Analy	st: RAS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limi		
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%		Notes
Blank (2243091-BLK1)							Prepared:	10/20/22	Analyzed:	: 10/20/22
Chloride	ND	20.0								
LCS (2243091-BS1)							Prepared:	10/20/22	Analyzed:	: 10/20/22
Chloride	255	20.0	250		102	90-110				
Matrix Spike (2243091-MS1)				Source:	E210110-0	)1	Prepared:	10/20/22	Analyzed:	: 10/21/22
Chloride	833	200	250	682	60.3	80-120				M2
Matrix Spike Dup (2243091-MSD1)				Source:	E210110-0	)1	Prepared:	10/20/22	Analyzed:	: 10/21/22
Chloride	775	200	250	682	37.3	80-120	7.14	20		M2

#### 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:	Klondike State Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/19/24 11:21

M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

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

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



roject Information	Chain	of Custody	/						X				
Client: MACK ENLAGY	Bill To				La	b Use	e Only		TA	ıT	EPA P	rogram	
Project: KLOWDIKE STATE COM 14	Attention: ESS	0.01	Lab	WO#			Joh Number	1D	2D 3D	Standard		SDWA	
Project Manager:	Address: 2724 NW COUNTY RO		EZ	10	110		20046-0001		X				
Address: City, State, Zip	City, State, Zip HOBBS, NM 8824 Phone: 575-393-9048	0			- 1	- 1	Analysis and Metho	d				RCRA	
Phone:	EMAIL TO: Natalie@energystaffingll		10	10							State		
Email:	Dakoatah@energystaffingllc.com	C.COIII	801	801		1	0			NM CO		TY	
Report due by:	bakoatan@energystaminghe.com		O by	O by	8021	3260	300.	S	¥	x	OT AL	17	
Time Date Matrix No. of Containers Sample ID		Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010 Chloride 300.0	ВСБОС	верос		Remarks		
10/18/22 S 1 5P 1	4 -4-	1						X					
10/12/2 S 1 SP 13	5-4-	2						X					
10/18/2 5 1 SP 16	5-4-	3						x		200			
										71			
Additional Instructions:													
I, (field sampler), attest to the validity and authenticity of this sample. date or time of collection is considered fraud and may be grounds for le	am aware that tampering with or intentionally mislabelli	ng the sample	location	on,			Samples requiring thermal p			elle also all district and a service.		ed or received	
Relinquished by (Signature)  Date  Time	Received by: (Signature)	Date 19	7	Time .	01	7		L	ab Use Onl	The second second			
Relinquished by: (Signature)  Date  Time	Received by: (Signature)	Date 10/20/		Time			Received on ice:		)/ N	-			
Relinquished by: (Signature) Date Time	Received by: (Signature)	Date	40	Time			T1 AVG Temp °C <u>4</u>	<u>T2</u>		<u>T3</u>			
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _		Container	Typo		lace :	n - no	ly/plastic, ag - ambe	or ola					
Note: Samples are discarded 30 days after results are reported	unless other arrangements are made. Hazardous									nort for the and	ucic of the	hous	

to or disposed of at the client expense. The report for the analysis of the above or on the report.

Report of the client expense. The report for the analysis of the above or on the report.

Printed: 10/20/2022 11:10:53AM

#### **Envirotech Analytical Laboratory**

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:	10/20/22 1	1:00		Work Order ID:	E210110
Phone:	(575) 390-6397	Date Logged In:	10/20/22 09	9:47		Logged In By:	Caitlin Christian
Email:	Natalie@energystaffingllc.com	Due Date:	10/21/22 1	7:00 (1 day TAT)			
Chain of C	Custody (COC)						
	sample ID match the COC?		Yes				
	number of samples per sampling site location mat	ch the COC	Yes				
	nples dropped off by client or carrier?		Yes	Carrier: <u>U</u>	<u>JPS</u>		
	COC complete, i.e., signatures, dates/times, reques	ted analyses?	No				
]	samples received within holding time? Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssic		Yes			<u>Comments</u>	s/Resolution
Sample Tu	rn Around Time (TAT)						
6. Did the C	COC indicate standard TAT, or Expedited TAT?		Yes		1 *	_	e sampled not
Sample Co	<u>ooler</u>				provided of	n COC.	
7. Was a sar	mple cooler received?		Yes				
8. If yes, wa	as cooler received in good condition?		Yes				
9. Was the s	sample(s) received intact, i.e., not broken?		Yes				
10. Were cu	ustody/security seals present?		No				
11. If yes, v	were custody/security seals intact?		NA				
]	sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples are minutes of sampling sible ice, record the temperature. Actual sample	e received w/i 15	Yes				
		temperature. 10	<u>~</u>				
Sample Co	neous VOC samples present?		No				
-	C samples collected in VOA Vials?		NA				
	ead space less than 6-8 mm (pea sized or less)?		NA				
	rip blank (TB) included for VOC analyses?		NA				
	n-VOC samples collected in the correct containers?	)	Yes				
	propriate volume/weight or number of sample contains		Yes				
Field Labe	· ·	iers conceicu.	103				
	eld sample labels filled out with the minimum info	rmation:					
	mple ID?	Tinution.	Yes				
	te/Time Collected?		Yes				
Col	llectors name?		No				
Sample Pro	<u>eservation</u>						
21. Does th	e COC or field labels indicate the samples were pr	eserved?	No				
	nple(s) correctly preserved?		NA				
24. Is lab fi	lteration required and/or requested for dissolved m	etals?	No				
Multiphase	e Sample Matrix						
26. Does th	e sample have more than one phase, i.e., multiphas	se?	No				
27. If yes, d	loes the COC specify which phase(s) is to be analy	zed?	NA				
Subcontrac	ct Laboratory						
	nples required to get sent to a subcontract laborator	rv?	No				
	ubcontract laboratory specified by the client and if	•		Subcontract Lab	o: na		
Client Inst							
Chefft Ins	ti uction						

Page 14 of 15

Date

Chain	of C	ustoc	i
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Project Information	Chain of	Custody												Page	_ of/
Client: MACK ENERGY	Bill To				Lab	o Use	e Only	y				TAT	Г	EPA Pr	ogram
Project: KLONDIKE STATE COM 14	Attention: ESS		Lab \	WO#			Job N	umbe	er ,	1D	2D	3D	Standard	CWA	SDWA
Project Manager:	Address: 2724 NW COUNTY ROAL	D	E2	10	110				0001		X				
Address:	City, State, Zip HOBBS, NM 88240					1	Analys	is and	Method	1					RCRA
City, State, Zip	Phone: 575-393-9048			3									N. T.		
Phone:	EMAIL TO: Natalie@energystaffingllc.o	com	015	8015										State	
Email:	Dakoatah@energystaffingllc.com		by 8	by 8(	121	99	9	0.00		NN	>		NM CO	UT AZ	TX
Report due by:			ORO	ORO	oy 80	y 82	s 601	de 3(			XT		X		
Time Date Sampled Sampled Matrix No. of Containers Sample ID		Lab Number	DRO/ORO by 8015	GRO/DRO by	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		верос	верос			Remarks	
10/18/22 S 1 SP1	4 - 4 -	1								X			per	e cha B. Car	nges
Idien S 1 Sp.	5-4-	2								X					RAS
10/12/2 5 1 comp	6-4-	3								X					
															1
Additional Instructions:															
I, (field sampler), attest to the validity and authenticity of this sample. date or time of collection is considered fraud and may be grounds for	l am aware that tampering with or intentionally mislabelling legal action.	g the sample	location	on,			Charles Andrews						eived on ice the day °C on subsequent d		ed or received
Relinquished by Gignature)  Date  10/16/12  Date	Received by: (Signature)	Pate 19	1-04	Time	5.00	)	Recei	ived c	on ice:	L	ab U:	se Onl	У	ale ne	
Relinquished by: (Signature) Date Time	Received by: (8 granture)	Date 10/20/	122	Time	$\alpha$	)	T1			T2			<u></u>		
Relinquished by: (Signature) Date Time	Received by: (Signature)	Date		Time			AVG	Temp	°c 4						
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other		Containe	г Туре	: g - p	glass, p	_				er gla	ss, v -	VOA			
Note: Samples are discarded 30 days after results are reported													port for the an	alysis of the	above

tor disposed of at the client expense. The report for the analysis of the above or on the report.

Cenviroteches 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.

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: Klondike St Com 1H

Work Order: E210184

Job Number: 20046-0001

Received: 10/28/2022

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 10/31/22

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. Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 10/31/22

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike St Com 1H

Workorder: E210184

Date Received: 10/28/2022 10:30:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/28/2022 10:30:00AM, under the Project Name: Klondike St Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike St Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881

Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

**Alexa Michaels** 

Sample Custody Officer Office: 505-632-1881

labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area Lynn Jarboe

Technical Representative/Client Services

Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

West Texas Midland/Odessa Area Rayny Hagan

Technical Representative Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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#### Sample Summary

Mack Energy	Project Name:	Klondike St Com 1H	Donoutoda
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/22 16:06

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Comp 25 - 4'	E210184-01A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 26 - 4'	E210184-02A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 27 - 4'	E210184-03A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 28 - 4'	E210184-04A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 29 - 4'	E210184-05A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 30 - 4'	E210184-06A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 31 - 4'	E210184-07A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 32 - 4'	E210184-08A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 33 - 4'	E210184-09A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 34 - 4'	E210184-10A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 35 - 4'	E210184-11A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 36 - 4'	E210184-12A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 37 - 4'	E210184-13A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 38 - 4'	E210184-14A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 39 - 4'	E210184-15A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 40 - 4'	E210184-16A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 41 - 4'	E210184-17A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 42 - 4'	E210184-18A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 43 - 4'	E210184-19A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 44 - 4'	E210184-20A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 45 - 4'	E210184-21A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.
Comp 46 - 4'	E210184-22A	Soil	10/26/22	10/28/22	Glass Jar, 2 oz.

Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 25 - 4' E210184-01

	E210104-01				
Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Analy	/st: RAS		Batch: 2244057
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0500	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
	92.9 %	70-130	10/28/22	10/29/22	
mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
ND	20.0	1	10/28/22	10/29/22	
	94.7 %	70-130	10/28/22	10/29/22	
mg/kg	mg/kg	Analy	/st: KM		Batch: 2244062
ND	25.0	1	10/28/22	10/28/22	
ND	50.0	1	10/28/22	10/28/22	
	98.1 %	50-200	10/28/22	10/28/22	
mg/kg	mg/kg	Analy	/st: RAS		Batch: 2244054
ND	200	10	10/28/22	10/28/22	
	mg/kg ND ND ND ND ND ND ND ND ND Mg/kg ND mg/kg	Result         Reporting Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           mg/kg         mg/kg           MD         20.0           94.7 %         mg/kg           MD         25.0           ND         50.0           98.1 %         mg/kg           mg/kg         mg/kg	Reporting           Result         Limit         Dilution           mg/kg         mg/kg         Analy           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           MD         0.0250         1           92.9 %         70-130         70-130           mg/kg         mg/kg         Analy           ND         20.0         1           94.7 %         70-130         70-130           mg/kg         mg/kg         Analy           ND         25.0         1           ND         50.0         1           98.1 %         50-200           mg/kg         Analy	Reporting           Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RAS           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0500         1         10/28/22           ND         0.0250         1         10/28/22           mg/kg         mg/kg         Analyst: RAS           ND         20.0         1         10/28/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/28/22           ND         50.0         1         10/28/22           ND         50.0         1         10/28/22           ND         50.0         1         10/28/22           MB         50-200         10/28/22	Reporting           Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RAS           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0500         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           mg/kg         mg/kg         Analyst: RAS           ND         20.0         1         10/28/22         10/29/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/28/22         10/29/22           ND         25.0         1         10/28/22         10/28/22           ND         50.0         1         10/28/22         10/28/22           ND         50.0         1         10/28/22         10/28/22           ND         50.0         1         10/28/22

Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 26 - 4' E210184-02

		E210104-02				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	/st: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		101 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	vst: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.8 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		104 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/28/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

### Comp 27 - 4'

		E210184-03				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		94.1 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	t: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.4 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	t: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		108 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	t: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/28/22	

Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

# Comp 28 - 4' E210184-04

		E210184-04				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	vst: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Coluene	ND	0.0250	1	10/28/22	10/29/22	
-Xylene	ND	0.0250	1	10/28/22	10/29/22	
,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
urrogate: 4-Bromochlorobenzene-PID		98.2 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
urrogate: 1-Chloro-4-fluorobenzene-FID		95.4 %	70-130	10/28/22	10/29/22	
Sonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Dil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		110 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	vst: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/28/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 29 - 4' E210184-05

		E210104-03				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		101 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.7 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		117 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 30 - 4' E210184-06

		E210104-00				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	vst: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		101 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.9 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	vst: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		108 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 31 - 4' E210184-07

		E210104-07				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	/st: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
o,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.3 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		110 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

### Comp 32 - 4'

E210184-08							
Reporting							
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057	
Benzene	ND	0.0250	1	10/28/22	10/29/22		
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22		
Toluene	ND	0.0250	1	10/28/22	10/29/22		
o-Xylene	ND	0.0250	1	10/28/22	10/29/22		
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22		
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22		
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/28/22	10/29/22		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	vst: RAS		Batch: 2244057	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22		
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.4 %	70-130	10/28/22	10/29/22		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	vst: KM		Batch: 2244062	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22		
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22		
Surrogate: n-Nonane		102 %	50-200	10/28/22	10/28/22		
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054	
Chloride	ND	200	10	10/28/22	10/29/22		



Mack Energy	Project Name:	Klondike St Com 1H	
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#### Comp 33 - 4' E210184-09

Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0500	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
	103 %	70-130	10/28/22	10/29/22	
mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
ND	20.0	1	10/28/22	10/29/22	
	94.8 %	70-130	10/28/22	10/29/22	
mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
ND	25.0	1	10/28/22	10/28/22	
ND	50.0	1	10/28/22	10/28/22	
	107 %	50-200	10/28/22	10/28/22	
	mg/kg	Δnalve	st: RAS		Batch: 2244054
mg/kg	mg/kg	7 thany			Baten. 2211031
	mg/kg ND	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           ND         0.0250           ND         0.0250           MD         20.0250           94.8 %         mg/kg           ND         25.0           ND         50.0	mg/kg         mg/kg         Analys           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           MD         0.0250         1           MD         20.0250         1           MD         20.0         1           94.8 %         70-130         70-130           mg/kg         mg/kg         Analys           ND         25.0         1           ND         50.0         1           107 %         50-200	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RAS           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0500         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           mg/kg         mg/kg         Analyst: RAS           ND         20.0         1         10/28/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/28/22           ND         50.0         1         10/28/22           ND         50.0         1         10/28/22	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RAS           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0500         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           mg/kg         70-130         10/28/22         10/29/22           mg/kg         mg/kg         Analyst: RAS           ND         20.0         1         10/28/22         10/29/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/28/22         10/28/22           ND         50.0         1         10/28/22         10/28/22           ND         50.0         1         10/28/22         10/28/22           ND         50.0         1         10/28/22         10/28/22



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 34 - 4' E210184-10

Notes  Batch: 2244057
Batch: 2244057
Batch: 2244057
Batch: 2244062
Batch: 2244054
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Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

### Comp 35 - 4'

E210184-11						
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		104 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.9 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		104 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	400	20	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
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Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 36 - 4' E210184-12

E210104-12							
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes	
				rst: RAS		Batch: 2244057	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Allary		10/20/22	Batch: 2244037	
Benzene	ND	0.0250	1	10/28/22	10/29/22		
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22		
Toluene	ND	0.0250	1	10/28/22	10/29/22		
o-Xylene	ND	0.0250	1	10/28/22	10/29/22		
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22		
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22		
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/28/22	10/29/22		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	rst: RAS		Batch: 2244057	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22		
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.8 %	70-130	10/28/22	10/29/22		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	rst: KM		Batch: 2244062	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/29/22		
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/29/22		
Surrogate: n-Nonane		101 %	50-200	10/28/22	10/29/22		
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	rst: RAS		Batch: 2244054	
Chloride	ND	400	20	10/28/22	10/29/22		



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

# Comp 37 - 4' E210184-13

		E210184-13				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	yst: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
o,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		104 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	yst: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.1 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	yst: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/29/22	
Surrogate: n-Nonane		96.2 %	50-200	10/28/22	10/29/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	yst: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
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Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 38 - 4' E210184-14

		E210104-14				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.8 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/29/22	
Surrogate: n-Nonane		116 %	50-200	10/28/22	10/29/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
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### Comp 39 - 4'

E210184-15						
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.7 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/29/22	
Surrogate: n-Nonane		110 %	50-200	10/28/22	10/29/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 40 - 4' E210184-16

		E210104-10				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
. many te	resur	2			111111111111111111111111111111111111111	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.3 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/29/22	
Surrogate: n-Nonane		111 %	50-200	10/28/22	10/29/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 41 - 4' E210184-17

		E210104-17				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	yst: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	yst: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.3 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	yst: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/29/22	
Surrogate: n-Nonane		103 %	50-200	10/28/22	10/29/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	yst: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	
		_30				



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 42 - 4' E210184-18

		E210104-10				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
	mg/kg	mg/kg	Δnalv	st: RAS		Batch: 2244057
Volatile Organics by EPA 8021B			1	10/28/22	10/29/22	Batch. 2244037
Benzene	ND	0.0250	1			
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.0 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/29/22	
Surrogate: n-Nonane		67.8 %	50-200	10/28/22	10/29/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	·



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 43 - 4' E210184-19

		221010117				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
o,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2244057
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.1 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2244062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/29/22	
Surrogate: n-Nonane		144 %	50-200	10/28/22	10/29/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2244054
Chloride	ND	200	10	10/28/22	10/29/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 44 - 4' E210184-20

Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Analy	st: RAS		Batch: 2244057
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
ND	0.0500	1	10/28/22	10/29/22	
ND	0.0250	1	10/28/22	10/29/22	
	102 %	70-130	10/28/22	10/29/22	
mg/kg	mg/kg	Analy	rst: RAS		Batch: 2244057
ND	20.0	1	10/28/22	10/29/22	
	93.8 %	70-130	10/28/22	10/29/22	
mg/kg	mg/kg	Analy	rst: KM		Batch: 2244062
ND	25.0	1	10/28/22	10/29/22	
ND	50.0	1	10/28/22	10/29/22	
	107 %	50-200	10/28/22	10/29/22	
mg/kg	mg/kg	Analy	rst: RAS		Batch: 2244054
ND	400	20	10/28/22	10/29/22	·
	mg/kg ND ND ND ND ND ND ND ND Mg/kg ND mg/kg	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           MD         0.0250           MD         0.0250           MD         20.0250           MB/kg         mg/kg           MB/kg         mg/kg           ND         25.0           ND         50.0           107 %         mg/kg           mg/kg         mg/kg	Result         Limit         Dilution           mg/kg         mg/kg         Analy           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           Mg/kg         mg/kg         Analy           ND         20.0         1           93.8 %         70-130           mg/kg         mg/kg         Analy           ND         25.0         1           ND         50.0         1           107 %         50-200           mg/kg         mg/kg         Analy	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: RAS           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0250         1         10/28/22           ND         0.0500         1         10/28/22           ND         0.0250         1         10/28/22           mg/kg         mg/kg         Analyst: RAS           ND         20.0         1         10/28/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/28/22           ND         50.0         1         10/28/22           ND         50.0         1         10/28/22           ND         50.0         1         10/28/22           ND         50.0         1         10/28/22           Mg/kg         mg/kg         Analyst: RAS	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: RAS           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0500         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           ND         0.0250         1         10/28/22         10/29/22           mg/kg         mg/kg         Analyst: RAS           ND         20.0         1         10/28/22         10/29/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/28/22         10/29/22           ND         50.0         1         10/28/22         10/29/22           ND         50.0         1         10/28/22         10/29/22           MD         50.0         1         10/28/22         10/29/22           MD         50.0         1         10/28/22         10/29/22 <td< td=""></td<>



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 45 - 4' E210184-21

		E210104-21				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
				rst: RAS	,	Batch: 2244059
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Allary		10/20/22	Daten: 2244039
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Toluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
p,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	rst: RAS		Batch: 2244059
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.6 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	rst: KM		Batch: 2244061
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		103 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	rst: RAS		Batch: 2244056
Chloride	ND	400	20	10/28/22	10/28/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

#### Comp 46 - 4' E210184-22

		E210104-22				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RAS			Batch: 2244059
Benzene	ND	0.0250	1	10/28/22	10/29/22	
Ethylbenzene	ND	0.0250	1	10/28/22	10/29/22	
Foluene	ND	0.0250	1	10/28/22	10/29/22	
o-Xylene	ND	0.0250	1	10/28/22	10/29/22	
o,m-Xylene	ND	0.0500	1	10/28/22	10/29/22	
Total Xylenes	ND	0.0250	1	10/28/22	10/29/22	
Surrogate: 4-Bromochlorobenzene-PID		101 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RAS			Batch: 2244059
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/22	10/29/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.3 %	70-130	10/28/22	10/29/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM			Batch: 2244061
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/22	10/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/22	10/28/22	
Surrogate: n-Nonane		107 %	50-200	10/28/22	10/28/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2244056
Chloride	ND	400	20	10/28/22	10/28/22	



Surrogate: 4-Bromochlorobenzene-PID

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Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	•
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

Artesia NM, 88210		Project Number. Project Manager		atalie Gladden					10/31/2022 4:06:09PM
		Volatile C	organics b	oy EPA 8021	B				Analyst: RAS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2244057-BLK1)							Prepared: 1	0/28/22 A	nalyzed: 10/29/22
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
o,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.35		8.00		91.9	70-130			
LCS (2244057-BS1)							Prepared: 1	0/28/22 A	nalyzed: 10/29/22
Benzene	4.98	0.0250	5.00		99.7	70-130			
Ethylbenzene	4.97	0.0250	5.00		99.3	70-130			
Toluene	5.10	0.0250	5.00		102	70-130			
o-Xylene	5.07	0.0250	5.00		101	70-130			
o,m-Xylene	10.0	0.0500	10.0		100	70-130			
Total Xylenes	15.1	0.0250	15.0		101	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.40		8.00		92.4	70-130			
LCS Dup (2244057-BSD1)							Prepared: 1	0/28/22 A	nalyzed: 10/29/22
Benzene	4.90	0.0250	5.00		98.0	70-130	1.74	20	
Ethylbenzene	4.90	0.0250	5.00		98.0	70-130	1.34	20	
Toluene	5.02	0.0250	5.00		100	70-130	1.56	20	
-Xylene	5.02	0.0250	5.00		100	70-130	1.08	20	
p,m-Xylene	9.93	0.0500	10.0		99.3	70-130	1.12	20	
Total Xylenes	14.9	0.0250	15.0		99.6	70-130	1.11	20	



Surrogate: 4-Bromochlorobenzene-PID

		<u> </u>	
Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	•
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

Artesia NM, 88210		Project Number: Project Manager:		atalie Gladden					10/31/2022 4:06:09PM
		Volatile O	rganics b	oy EPA 8021	В				Analyst: RAS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2244059-BLK1)							Prepared: 1	0/28/22 A	nalyzed: 10/29/22
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	7.74		8.00		96.8	70-130			
LCS (2244059-BS1)							Prepared: 10	0/28/22 A	nalyzed: 10/29/22
Benzene	5.64	0.0250	5.00		113	70-130			
Ethylbenzene	4.46	0.0250	5.00		89.3	70-130			
Toluene	4.78	0.0250	5.00		95.7	70-130			
o-Xylene	4.53	0.0250	5.00		90.5	70-130			
p,m-Xylene	9.05	0.0500	10.0		90.5	70-130			
Total Xylenes	13.6	0.0250	15.0		90.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.76		8.00		97.1	70-130			
LCS Dup (2244059-BSD1)							Prepared: 10	0/28/22 A	nalyzed: 10/31/22
Benzene	5.19	0.0250	5.00		104	70-130	8.25	20	
Ethylbenzene	4.18	0.0250	5.00		83.6	70-130	6.55	20	
Toluene	4.44	0.0250	5.00		88.9	70-130	7.35	20	
o-Xylene	4.25	0.0250	5.00		85.1	70-130	6.20	20	
p,m-Xylene	8.51	0.0500	10.0		85.1	70-130	6.09	20	
Total Xylenes	12.8	0.0250	15.0		85.1	70-130	6.13	20	



Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	-
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

Artesia NM, 88210		Project Manage	r: Na	italie Gladden	1				10/31/2022 4:06:09PM		
	Non	Nonhalogenated Organics by EPA 8015D - GRO							Analyst: RAS		
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit			
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes		
Blank (2244057-BLK1)							Prepared: 1	0/28/22	Analyzed: 10/29/22		
Gasoline Range Organics (C6-C10)	ND	20.0									
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.68		8.00		96.0	70-130					
LCS (2244057-BS2)							Prepared: 10	0/28/22	Analyzed: 10/29/22		
Gasoline Range Organics (C6-C10)	51.1	20.0	50.0		102	70-130					
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		8.00		96.9	70-130					
LCS Dup (2244057-BSD2)							Prepared: 1	0/28/22	Analyzed: 10/29/22		
Gasoline Range Organics (C6-C10)	48.6	20.0	50.0		97.2	70-130	5.02	20	-		
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.77		8.00		97.2	70-130					

Mack EnergyProject Name:Klondike St Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden10/31/2022 4:06:09PM

Artesia NW, 88210		Floject Manage	1. IN	atane Gradder	1			10	73172022 4.00.091		
Nonhalogenated Organics by EPA 8015D - GRO  Analyst: RAS											
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit			
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes		
Blank (2244059-BLK1)							Prepared: 1	0/28/22 Ana	alyzed: 10/29/22		
Gasoline Range Organics (C6-C10)	ND	20.0									
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.90		8.00		86.3	70-130					
LCS (2244059-BS2)							Prepared: 1	0/28/22 Ana	alyzed: 10/29/22		
Casalina Banas Organias (C6 C10)	47.0	20.0	50.0		95.7	70-130					

Gasoline Range Organics (C6-C10)	47.9	20.0	30.0	95.7	/0-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.06		8.00	88.3	70-130			
LCS Dup (2244059-BSD2)					P	repared: 10	0/28/22 Analyze	ed: 10/29/22
Gasoline Range Organics (C6-C10)	49.5	20.0	50.0	99.1	70-130	3.49	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.99		8.00	87.4	70-130			

Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	-
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

Artesia NM, 88210		Project Manage	r: Na	ıtalie Gladder	1				10/31/2022 4:06:09Pl
	Nonha	logenated Or	ganics by l	EPA 8015I	) - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2244061-BLK1)							Prepared: 1	0/28/22 A	nalyzed: 10/28/22
biesel Range Organics (C10-C28)	ND	25.0							
vil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	49.6		50.0		99.2	50-200			
CS (2244061-BS1)							Prepared: 1	0/28/22 A	nalyzed: 10/28/22
viesel Range Organics (C10-C28)	241	25.0	250		96.4	38-132			
urrogate: n-Nonane	48.9		50.0		97.8	50-200			
Matrix Spike (2244061-MS1)				Source:	E210186-0	01	Prepared: 1	0/28/22 A	nalyzed: 10/28/22
viesel Range Organics (C10-C28)	228	25.0	250	ND	91.1	38-132			
urrogate: n-Nonane	53.7		50.0		107	50-200			
Matrix Spike Dup (2244061-MSD1)				Source:	E210186-0	01	Prepared: 1	0/28/22 A	nalyzed: 10/28/22
tiesel Range Organics (C10-C28)	216	25.0	250	ND	86.3	38-132	5.38	20	
urrogate: n-Nonane	50.7		50.0		101	50-200			



Mack EnergyProject Name:Klondike St Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden10/31/2022 4:06:09PM

Artesia NM, 88210		Project Manager	r: Na	talie Gladder	1				10/31/2022 4:06:09Pf
	Nonha	logenated Or	ganics by l	EPA 8015I	) - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2244062-BLK1)							Prepared: 1	0/28/22 Aı	nalyzed: 10/28/22
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	42.9		50.0		85.8	50-200			
LCS (2244062-BS1)							Prepared: 1	0/28/22 Aı	nalyzed: 10/28/22
Diesel Range Organics (C10-C28)	230	25.0	250		92.0	38-132			
urrogate: n-Nonane	53.0		50.0		106	50-200			
Matrix Spike (2244062-MS1)				Source:	E210184-	10	Prepared: 1	0/28/22 Aı	nalyzed: 10/28/22
Diesel Range Organics (C10-C28)	213	25.0	250	ND	85.1	38-132			
urrogate: n-Nonane	51.0		50.0		102	50-200			
Matrix Spike Dup (2244062-MSD1)				Source:	E210184-	10	Prepared: 1	0/28/22 Aı	nalyzed: 10/28/22
Diesel Range Organics (C10-C28)	215	25.0	250	ND	86.0	38-132	1.09	20	
Gurrogate: n-Nonane	50.7		50.0		101	50-200			

Mack Energy 7 W. Compress Road	Project Name: Project Number:	Klondike St Com 1H 20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/2022 4:06:09PM

		Anions	by EPA 3	00.0/9056 <i>A</i>	<b>\</b>			A	nalyst: RAS
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits	RPD %	RPD Limit %	Notes
Blank (2244054-BLK1)									zed: 10/28/22
Chloride	ND	20.0					repared. 1	0,20,22 Tillary	200. 10/20/22
LCS (2244054-BS1)						I	Prepared: 10	0/28/22 Analy	zed: 10/28/22
Chloride	246	20.0	250		98.4	90-110			

Matrix Spike (2244054-MS1)			Source:	E210184-0	1	Prepared: 10	)/28/22	Analyzed: 10/28/	22	
Chloride	294	200	250	ND	117	80-120				
Matrix Spike Dup (2244054-MSD1)	Source:	E210184-0	1	Prepared: 10	)/28/22	Analyzed: 10/28/	22			
Chloride	289	200	250	ND	116	80-120	1.57	20		

Mack Energy 7 W. Compress Road Artesia NM, 88210		Project Name: Project Number: Project Manager:	2	Tondike St Co 0046-0001 Tatalie Gladder					<b>Reported:</b> 10/31/2022 4:06:09PM
		Anions	by EPA	300.0/9056 <i>£</i>	A				Analyst: RAS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2244056-BLK1)							Prepared: 1	0/28/22 A	nalyzed: 10/28/22
Chloride	ND	20.0							
LCS (2244056-BS1)							Prepared:	0/28/22 A	nalyzed: 10/28/22
Chloride	244	20.0	250		97.8	90-110			
Matrix Spike (2244056-MS1)				Source:	E210182-	)1	Prepared:	0/28/22 A	nalyzed: 10/28/22
Chloride	318	20.0	250	75.8	96.9	80-120			
Matrix Spike Dup (2244056-MSD1)				Source:	E210182-	)1	Prepared:	0/28/22 A	nalyzed: 10/28/22
Chloride	301	20.0	250	75.8	90.0	80-120	5.53	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**

ſ	Mack Energy	Project Name:	Klondike St Com 1H	
l	7 W. Compress Road	Project Number:	20046-0001	Reported:
l	Artesia NM, 88210	Project Manager:	Natalie Gladden	10/31/22 16:06

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: MACK ENERGY Project: KLONDIKS STEOM 1H Attention: ESS										La	ab Us	se On	ily				TA	AT	EPA P	rogram
Project: K	LOND	IKS :	STO	4 14		Attention: ESS		Lab	WO#			Job			1D	2D	3D	Standard	CWA	SDWA
Project Man	nager:					Address: 2724 NW COUNTY RO.	AD	E2	210	184		200	460	-0001		X				
Address:						City, State, Zip HOBBS, NM 8824	0							nd Metho	d					RCRA
City, State, Z	Zip					Phone: 575-393-9048										1				
Phone:						EMAIL TO: Natalie@energystaffingll	c.com	15	15								1 1	1	State	
Email:					133	Dakoatah@energystaffingllc.com		y 80	/ 80	н	_		0.0		-		1 1	NM CC	JUT AZ	TX
Report due l	by:				1			0 0	o b	802	826(	2010	300		N	×	1 1	X		
	Date	402.50	No. of	6 1 10			Lab	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	voc by 8260	als 6	Chloride 300.0		00	00				-
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ampled	Matrix	Containers	Sample ID			Number	DRO	GRO	BTE	000	Metals 6010	Chlo		ВСБОС	BGDOC		0	Remarks	
	2.5	1	1			- 2 11	11								X					
19/	14/22	5	1	Co	MP	23 - 4	X								1					
	1	-	/			24 - 11	2													
			/	/	1	19 9									11					
			1			25-4"	3													
						26-4-	4													
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	+	-	-		1	2) 7									H					
						28 4	10								$\coprod$					
						29 4	7													
						30: 4														
						31-4	7157													
						327.									+					
Additional I	Instruct	tions:	,	1	· I	0- 9	Para Serial								1					
Additional	moti ac.	dons.																		
I, (field sampler), date or time of c						tware that tampering with or intentionally mislabell ction.	ing the sampl	e locati	ion,									ceived on ice the da		led or received
Relinquished b			Date	114.0	ime	Received by (Stenature)	Date		Time	0	0		-			ah II	se On	nlv	F- /- Fig.	
MA	c			126/27		MINSOON	100	-)70	2	6		Rec	eive	d on ice:		7)1				-7
Relinguished	by: (Signa	ture)	Date		ime L	Received by: (Signature)	10/28/	22	Time 10	:30	)	T1			T2			T3		
Relinquished b	by: (Signa	iture)	Date	T	ime	Received by: (Signature)	Date		Time			ΔΜ	Tor	np °C	4					
Sample Matrix: 5	S - Soil Sd	- Solid So	Shidge A -	Aqueous O - Oth	er		Containe	r Tvn	6. b -	plass	n - n			, ag - amb		ass v	- VOA			
						ss other arrangements are made. Hazardous						_			_				nalysis of the	above
						bry with this COC. The liability of the laborator												-p, the th		

Project Information	Chain o	of Custody	/										Page _ 2	<u> </u>
Client: MACK KNENGY Project: KLONDIKE STCOM 14	Bill To Attention: ESS				_	_	e On		10	lan	TA			rogram
Project Manager:	Address: 2724 NW COUNTY RO	AD	F 2	W0#	24		200 1	Number 46-000	1D	X	3D	Standard	CWA	SDWA
Address:	City, State, Zip HOBBS, NM 8824			, 0.	01			sis and Metho		1/1				RCRA
City, State, Zip	Phone: 575-393-9048													
Phone:	EMAIL TO: Natalie@energystaffinglio	c.com	015	315				0 1 1				The same	State	
mail:	Dakoatah@energystaffingllc.com		by 8(	by 80	121	09	0	0.00	ΣN			NM CO	UT AZ	TX
Report due by:			ORO	ORO	3y 8C	y 82	s 601	de 3(		¥		X		
Time Date Matrix No. of Containers Sample ID		Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	втех by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC	верос			Remarks	
10/19/2 5 1 comp	33= 4-								X					
	34-4-													
	35-4-									5				
	36-4													
		37-4-							1					
	38 ~ 4 ~								П					
	39.4'													
	40 ~ 4													
	41-47								1					
	42' 4								1					
Additional Instructions:					-									
(field sampler), attest to the validity and authenticity of this sampl	e. I am aware that tampering with or intentionally mislabelli	ng the sample	locatio	on,	-		Samples	s requiring thermal p	reserva	tion mu	st be rece	ived on ice the day t	hey are samp	led or receive
ate or time of collection is considered fraud and may be grounds for		My				-		in ice at an avg temp				And the second second	rs.	
Relinquished by: (Signature) Date / 10/26/27	e Received by (Signature)	1000	1	Time2	20	2	Rece	ived on ice:	Y	ab Us	se Only	У		
elinquished by (Signature) Date Tin		Date .		Time			T1		T2			<u></u>		
Relinquished by: (Signature) Date Tin	e Received by: (Signature)	Date		Time				Temp °C	1					
ample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other		Container	Type	: g - g	lass.			astic, ag - ambe	er gla	ss. v -	VOA			
Note: Samples are discarded 30 days after results are report												port for the ana	vsis of the	above

Client:	MACK	K ENERGY  NOIKE ST CON /H  Attention: ESS  Bill To  Lab WO#  Lab WO#  J							e Only	/				TAT	T.	EPA Pr	ogram			
Project:	kion	DIKE	STCO	En 14	At	tention: ESS		Lab	WO#			Job N		er .	1D	2D	3D	Standard	CWA	SDWA
Project N	lanager:	0,,			Ac	Idress: 2724 NW COUNTY	ROAD	F2	WO#	84	397	2004	16-	20001		8				
Address:					Ci	ty, State, Zip HOBBS, NM 8	8240						_	d Metho	d					RCRA
City, Stat	e, Zip				Ph	one: 575-393-9048			4							63				
Phone:					EN	MAIL TO: Natalie@energystaffi	ngllc.com	15	8015										State	
Email:						koatah@energystaffingllc.com		y 80	y 80	17	0		0.0		5			NM CO	UT AZ	TX
Report d	ue by:							30 b	30 b	807	826	9010	e 300		ΣN	¥		X		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID			Lab Number	DRO/ORO by 8015	GRO/DRO by	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		верос	BGDOC			Remarks	
	10/247	5	1	COMP	43.	- 4-								2.	X					
	(	ſ			44	- 4-									1					
					45	4-									1					
	10/24%	5	1	COMP											X					
																		A		
														+						+
Addition	al Instruc	tions:																		
I, (field sam	oler), attest to	the validity	and authent	icity of this sam	ole. I am awar	e that tampering with or intentionally mis	abelling the sample	locati	on,									eived on ice the day		ed or received
			-									раскей і	n ice at	an avg tem				<sup>o</sup> C on subsequent da	ys.	
M				12422	me	Received by: (Signature)	1 Date	70	172	16	7,	Recei	ived	on ice:	G	ab U	se Onl	У		
	ed by:/tsign	3/1	Date	1970	me	Bedeived W. (Signature)	10/28/2	1	Time	30	_	T1			1000			<u>T3</u>		
Relinquish	ed by: (Sign	ature)	Date	, ,	ime	Received by: (Signature)	Date		Time			AVG	Tem	p °C	4					
Sample Mat	rix: <b>S</b> - Soil, <b>S</b> o	- Solid, Sg	Sludge, A - A	queous, <b>0</b> - Oth	er	1	Containe	г Туре	: g - g	glass, I					er gla	ss, v -	VOA			
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous s																		port for the ana	alysis 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.

Printed: 10/28/2022 10:54:49AM

#### **Envirotech Analytical Laboratory**

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.

we receive	no response concerning these items within 24 hours of t	ne date of this noti	ce, un the su	impres will be unu	nyzeu us requesteu.	
Client:	Mack Energy	Date Received:	10/28/22 10	0:30	Work Order ID:	E210184
Phone:	(575) 390-6397	Date Logged In:	10/27/22 1:	5:46	Logged In By:	Alexa Michaels
Email:	Natalie@energystaffingllc.com	Due Date:	10/31/22 1	7:00 (1 day TAT)		
	Custody (COC)					
	e sample ID match the COC?		Yes			
	e number of samples per sampling site location man	tch the COC	Yes			
	imples dropped off by client or carrier?		Yes	Carrier: <u>U</u>	<u>JPS</u>	
	e COC complete, i.e., signatures, dates/times, reques	sted analyses?	No			
5. Were al	l samples received within holding time? Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssion.		Yes		<u>Comment</u>	s/Resolution
Sample T	urn Around Time (TAT)					
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes		Project manager and tin	ne sampled not
Sample C	looler				provided on the coc by	client. Client asked
	ample cooler received?		Yes		to cancel Samples Com	
	was cooler received in good condition?		Yes		24 - 4.	p 23 - 4 and Comp
9. Was the	e sample(s) received intact, i.e., not broken?		Yes		24 <b>-</b> 4.	
	custody/security seals present?		No			
	were custody/security seals intact?					
•	• •		NA			
	e sample received on ice? If yes, the recorded temp is 4°C, Note: Thermal preservation is not required, if samples ar minutes of sampling	e received w/i 15	Yes			
	risible ice, record the temperature. Actual sample	temperature: 4 (	<u>~</u>			
Sample C			<b>3.</b> T			
	queous VOC samples present?		No			
	OC samples collected in VOA Vials?		NA NA			
	head space less than 6-8 mm (pea sized or less)?		NA			
	trip blank (TB) included for VOC analyses?	_	NA			
	on-VOC samples collected in the correct containers		Yes			
	appropriate volume/weight or number of sample contain	ners collected?	Yes			
Field Lab						
	field sample labels filled out with the minimum info	ormation:	Yes			
	umple ID? ate/Time Collected?			l		
	ollectors name?		Yes No			
	reservation the COC or field labels indicate the samples were pre-	reserved?	No			
	mple(s) correctly preserved?		NA			
	filteration required and/or requested for dissolved n	netals?	No			
	se Sample Matrix					
	the sample have more than one phase, i.e., multipha	se?	No			
	does the COC specify which phase(s) is to be analy		NA			
		, zeu.	NA			
	act Laboratory					
	imples required to get sent to a subcontract laborato	-	No			
29. Was a	subcontract laboratory specified by the client and in	f so who?	NA	Subcontract Lab	o: NA	
Client In	struction					
						()

**Project Information** 

Chain of Custody

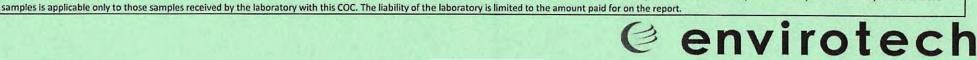
Page	of	3

Received by OCD: 7/29/2025 2:55:00 PM

Client: MACK ENERGY	Bill To			Lak	h He	e Onl	14			_	-	TA	Т	FDAT	rogram
	ntion: ESS	Lab	WO#	Lai		Job N		ner .		1D	2D T		Standa	rd CWA	SDWA
Project Manager: Addr		F	2101	94		200	110-	acc	ol F		X	30	Stallua	IU CWA	30VVA
	State, Zip HOBBS, NM 88240		101	0.4		Analy							Total Control	term -	RCRA
	ne: 575-393-9048			1									THE RESERVE	580	TICIUS.
	IL TO: Natalie@energystaffingllc.com	51	2							-			1	State	
	patah@energystaffingllc.com	/ 80:	/ 80	-			0.			-			NM	CO UT AZ	TXT
Report due by:		io by	(d O)	8021	8260	9010	300			N	*		X		
Time Date Sampled Matrix No. of Containers Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC	верос			Remark	
19/2/22 S / COMP 23	3.4								-	X			Ch	ent Can	colled
	- 4' 2														
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. 9												Co	Mp 23:	129
25	4' 13													10/28/	2200
20	-4 24														
27	-4 35														
78	-4- 46													ter the control of th	
7-6	- 4'									1					
30	7 10														
60															
3)	- 4												1		
	2 4									1					
Additional Instructions:															
I, (field sampler), attest to the validity and authenticity of this sample. I am aware th	nat tampering with or intentionally mislabelling the sample	e locati	on,										eived on ice to	e day they are sam	oled or received
date or time of collection is considered fraud and may be grounds for legal action.  Relinquished by: (Signature) Date Time	y sampled by		Time	O -	0		10000							S. Street Street	CONTROL OF THE
My 2 = 10/26/27	Received My Manual ( 10-5	)7t	7	3-		Rece	eived	on id	e:		) N	e On	l <b>y</b>		
Relinquis mediby: (Signature)  Date  Time  (1)	Received by: (Signature) Late 10/28/	22	Time 10:	30	)	T1				T2					
Relinquished by: (Signature) Date Time	Received by: (Signature)		Time			AVG	Tem	ıp °C	4						
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other	Containe	r Type	: g - g	lass, I		W-1/100 17 1 1	275 2100			rglas	s, v -	VOA			Page Name
Note: Samples are discarded 30 days after results are reported unless othe	er arrangements are made. Hazardous samples will	be ret	turned	to clie	ent or	dispo	sed of	f at the					eport for th	e analysis of th	above
samples is applicable only to those samples received by the laboratory with															

**Project Information** 

Received by OCD: 7/29/2025 2:55:00 PM



																								Kecei
Project Ir	nformatio	n					Cha	ain of Cu	ıstody													Page	3 of _	Ned by Oc
Client:	MACK	ER	IERGY			T	Bill To				75	La	b Us	e Onl	y				T	AT		EPA P	rogram	
Project:	KLON	Olke	STICO			Lab V	NO#				lumb	er	1D	2D	3D	Sta	andard	CWA	SDWA	OCD: //29/2025 Z:55:00 PM				
Project N Address:	Manager:		Address: 2724 NW COUNTY RC City, State, Zip HOBBS, NM 8824							E2	101	84		2004	sis and	Mat	hod	154	1	-	1000		RCRA	1 2/2
City, Stat							ie: 575-393-9048	8240		1	T			Allaly	SIS allo	IVIEC	100	1	T		1000		Henry	1 2
Phone:						160	IL TO: Natalie@energystaffi	ngllc.cor	m	15	15			-								State		1
Email:							atah@energystaffingllc.com			y 80	y 80	21	00	0	0.00		NN				NM CC	UT AZ	TX	3.
Report d								10000	1000	)RO	SRO L	y 80	y 826	s 601	de 30	- 1					X			- 3
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	) <u> </u>			-39930	Lab ımber	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		BGDOC	BGDOC				Remark	5	N.
	10/247	5	1	COM	14	3 -	4-	1	9								>							
	1		(	1	4	1 -	4-	2	20															
	) / 5 - 4-								21								1	/						
	10/24%	5	1	COM	0 40	, ,	4-	1	22								X	3						
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				ME TO																				
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Addition	al Instruc	tions:	L	L								l	1			L				1				
							nat tampering with or intentionally mis	tabelling th	je sampl	e locati	ion,										on ice the di		pled or receive	d
			d fraud and r	nay be ground	T		Sampled by:	A los	MA	100	Time			packe	G III ICE I	all avg	temp acc		Use C		DE ENGLE	AL GOSELLO	5455 54C 445 (	<b>1</b>
M.	ed by (Sign:		· fo	12/22	Time		Received by: (Signatural)	1	(2-2	707	1	2-(	26	Rec	eived	on ic	e:	Ø/		nny				
	by: Helen	3/1	Pate	170	Time		actle Chte		185/	22	10	:3	0	T1			<u> </u>	2			<u>T3</u>			
Relinquish	ed by: (Sign:	ature)	Date		Time		Received by: (Signature)	Dat	te		Time			AVO	3 Ten	np °C	4						44	
				queous, O - C					ontaine					poly/p	lastic,	ag - a								38n r
							er arrangements are made. Hazar h this COC. The liability of the labo										client	expen	se. Th	e repo	rt for the a	nalysis of t	ne above	

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: Klondike St Com 1H

Work Order: E210194

Job Number: 20046-0001

Received: 10/31/2022

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 11/1/22

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.

Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 11/1/22

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike St Com 1H

Workorder: E210194

Date Received: 10/31/2022 9:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/31/2022 9:00:00AM, under the Project Name: Klondike St Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike St Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881 Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

**Alexa Michaels** 

Sample Custody Officer Office: 505-632-1881

labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area Lynn Jarboe

Technical Representative/Client Services

Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

West Texas Midland/Odessa Area Rayny Hagan Technical Representative

Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com



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### Sample Summary

Mack Energy	Project Name:	Klondike St Com 1H	Donoutoda
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/01/22 14:21

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Comp 47 - 4'	E210194-01A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 48 - 4'	E210194-02A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 49 - 4'	E210194-03A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 50 - 4'	E210194-04A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 51 - 4'	E210194-05A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 52 - 4'	E210194-06A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 53 - 4'	E210194-07A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 54 - 4'	E210194-08A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 55 - 4'	E210194-09A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 56 - 4'	E210194-10A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 57 - 4'	E210194-11A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 58 - 4'	E210194-12A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 59 - 4'	E210194-13A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 60 - 4'	E210194-14A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 61 - 4'	E210194-15A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 62 - 4'	E210194-16A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 63 - 4'	E210194-17A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 64 - 4'	E210194-18A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 65 - 4'	E210194-19A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 66 - 4'	E210194-20A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 47 - 4' E210194-01

E210194-01						
Result			Prepared	Analyzed	Notes	
			1			
mg/kg	mg/kg	Ana	lyst: IY		Batch: 2244064	
ND	0.0250	1	10/29/22	10/30/22		
ND	0.0250	1	10/29/22	10/30/22		
ND	0.0250	1	10/29/22	10/30/22		
ND	0.0250	1	10/29/22	10/30/22		
ND	0.0500	1	10/29/22	10/30/22		
ND	0.0250	1	10/29/22	10/30/22		
	100 %	70-130	10/29/22	10/30/22		
mg/kg	mg/kg	Ana	lyst: IY		Batch: 2244064	
ND	20.0	1	10/29/22	10/30/22		
	85.8 %	70-130	10/29/22	10/30/22		
mg/kg	mg/kg	Ana	lyst: KM		Batch: 2245005	
ND	25.0	1	10/31/22	10/31/22		
ND	50.0	1	10/31/22	10/31/22		
	96.4 %	50-200	10/31/22	10/31/22		
mg/kg	mg/kg	Ana	lyst: RAS		Batch: 2245001	
ND	200	10	10/31/22	10/31/22		
	ND ND ND ND Mg/kg ND mg/kg ND mg/kg	Result         Reporting Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           IO0 %         mg/kg           mg/kg         mg/kg           ND         20.0           85.8 %         mg/kg           ND         25.0           ND         50.0           96.4 %         mg/kg           mg/kg         mg/kg	Reporting           Result         Limit         Dilution           mg/kg         mg/kg         Ana           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           MD         70-130         1           mg/kg         mg/kg         Ana           ND         20.0         1           85.8 %         70-130         1           mg/kg         mg/kg         Ana           ND         25.0         1           ND         50.0         1           96.4 %         50-200           mg/kg         mg/kg         Ana	Reporting           Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0500         1         10/29/22           ND         70-130         10/29/22           mg/kg         mg/kg         Analyst: IY           ND         20.0         1         10/29/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/31/22           ND         50.0         1         10/31/22           ND         50.0         1         10/31/22           Mg/kg         mg/kg         Analyst: RAS	Reporting           Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/29/22         10/30/22           ND         0.0250         1         10/29/22         10/30/22           ND         0.0250         1         10/29/22         10/30/22           ND         0.0500         1         10/29/22         10/30/22           ND         0.0250         1         10/29/22         10/30/22           ND         0.0250         1         10/29/22         10/30/22           mg/kg         mg/kg         Analyst: IY         ND         20.02         1         10/29/22         10/30/22           mg/kg         mg/kg         Analyst: KM         ND         25.0         1         10/29/22         10/30/22           ND         25.0         1         10/31/22         10/31/22         10/31/22           ND         50.0         1         10/31/22         10/31/22           ND         50.0         1         10/31/22         10/31/22           ng/kg         mg/kg         Analyst: RAS	



Mack Energy	Project Name:	Klondike St Com 1H	
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Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 48 - 4' E210194-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	0.0678	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.9 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		99.0 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: RAS		Batch: 2245001
Chloride	ND	200	10	10/31/22	10/31/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 49 - 4' E210194-03

		L210174 05				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Coluene	ND	0.0250	1	10/29/22	10/30/22	
-Xylene	ND	0.0250	1	10/29/22	10/30/22	
,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
urrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
urrogate: 1-Chloro-4-fluorobenzene-FID		85.9 %	70-130	10/29/22	10/30/22	
Sonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Dil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		108 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	10/31/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 50 - 4' E210194-04

		E210174 04				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
-Xylene	ND	0.0250	1	10/29/22	10/30/22	
o,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		106 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.5 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		82.3 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	10/31/22	·



Mack Energy	Project Name:	Klondike St Com 1H	
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#### Comp 51 - 4' E210194-05

Zed Notes  Batch: 2244064  /22  /22  /22  /22
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/22 /22
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Batch: 2244064
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/22
Batch: 2245005
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/22
/22
Batch: 2245001
/22
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Mack Energy	Project Name:	Klondike St Com 1H	
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Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 52 - 4' E210194-06

		E210174-00				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.1 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		98.8 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	10/31/22	



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7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 53 - 4' E210194-07

		E210174-07				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	vst: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		107 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		83.0 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		95.7 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	200	10	10/31/22	10/31/22	



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### Comp 54 - 4'

E210194-08						
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.0 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		84.1 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	200	10	10/31/22	10/31/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 55 - 4' E210194-09

E210174-07							
		Reporting					
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: IY		Batch: 2244064	
Benzene	ND	0.0250	1	10/29/22	10/30/22		
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22		
Toluene	ND	0.0250	1	10/29/22	10/30/22		
o-Xylene	ND	0.0250	1	10/29/22	10/30/22		
o,m-Xylene	ND	0.0500	1	10/29/22	10/30/22		
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22		
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/29/22	10/30/22		
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	st: IY		Batch: 2244064	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22		
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.0 %	70-130	10/29/22	10/30/22		
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	t: KM		Batch: 2245005	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22		
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22		
Surrogate: n-Nonane		99.6 %	50-200	10/31/22	11/01/22		
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: RAS		Batch: 2245001	
Chloride	ND	200	10	10/31/22	10/31/22		



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 56 - 4' E210194-10

		E210174-10				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY	<u> </u>	Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		108 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		82.7 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		91.6 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	200	10	10/31/22	10/31/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

### Comp 57 - 4'

		E210194-11				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	rst: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.2 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	rst: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		116 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	rst: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	10/31/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 58 - 4' E210194-12

		E210174-12				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg mg/kg Analyst: IY			Batch: 2244064		
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		104 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg mg/kg Analyst: IY		st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.2 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		106 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	10/31/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 59 - 4' E210194-13

		E210174-13				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg mg/kg Analyst: IY			Batch: 2244064		
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		108 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg mg/kg		Analyst: IY		Batch: 2244064	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		82.1 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg Analyst: KM			Batch: 2245005	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		90.0 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	10/31/22	·



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 60 - 4' E210194-14

		L210174 14				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Anal	yst: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Coluene	ND	0.0250	1	10/29/22	10/30/22	
-Xylene	ND	0.0250	1	10/29/22	10/30/22	
o,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		106 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	/kg mg/kg Analyst: IY			Batch: 2244064	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		81.4 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Anal	yst: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		102 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Anal	yst: RAS		Batch: 2245001
Chloride	312	200	10	10/31/22	10/31/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 61 - 4' E210194-15

		E210174-13				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg mg/kg Analyst: IY			Batch: 2244064		
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		108 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg mg/kg Ar		Analy	Analyst: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		83.0 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg Analyst: KM			Batch: 2245005	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		111 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	10/31/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 62 - 4' E210194-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	g Analyst: IY			Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
foluene	ND	0.0250	1	10/29/22	10/30/22	
-Xylene	ND	0.0250	1	10/29/22	10/30/22	
,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
urrogate: 4-Bromochlorobenzene-PID		105 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	rst: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
urrogate: 1-Chloro-4-fluorobenzene-FID		83.4 %	70-130	10/29/22	10/30/22	
onhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
riesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Dil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
urrogate: n-Nonane		107 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2245001
Chloride	ND	400	20	10/31/22	10/31/22	·



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 63 - 4' E210194-17

		E210174-17				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg mg/kg		Analy	st: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		107 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.2 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		100 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	11/01/22	·



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

### Comp 64 - 4'

		E210194-18				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		107 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		82.9 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		92.1 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 65 - 4' E210194-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: IY		Batch: 2244064
Benzene	ND	0.0250	1	10/29/22	10/30/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/30/22	
Toluene	ND	0.0250	1	10/29/22	10/30/22	
o-Xylene	ND	0.0250	1	10/29/22	10/30/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	st: IY		Batch: 2244064
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		83.9 %	70-130	10/29/22	10/30/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	st: KM		Batch: 2245005
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		92.2 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: RAS		Batch: 2245001
Chloride	ND	400	20	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

#### Comp 66 - 4' E210194-20

	E210174-20				
Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	g Analyst: IY			Batch: 2244064
ND	0.0250	1	10/29/22	10/30/22	
ND	0.0250	1	10/29/22	10/30/22	
ND	0.0250	1	10/29/22	10/30/22	
ND	0.0250	1	10/29/22	10/30/22	
ND	0.0500	1	10/29/22	10/30/22	
ND	0.0250	1	10/29/22	10/30/22	
	107 %	70-130	10/29/22	10/30/22	
mg/kg	mg/kg	Analy	/st: IY		Batch: 2244064
ND	20.0	1	10/29/22	10/30/22	
	84.9 %	70-130	10/29/22	10/30/22	
mg/kg	mg/kg	Analy	vst: KM		Batch: 2245005
ND	25.0	1	10/31/22	11/01/22	
ND	50.0	1	10/31/22	11/01/22	
	103 %	50-200	10/31/22	11/01/22	
mg/kg	mg/kg	Analy	st: RAS		Batch: 2245001
ND	400	20	10/31/22	11/01/22	
	mg/kg ND ND ND ND ND ND ND ND ND Mg/kg ND mg/kg	Result         Reporting           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           IO7 %         mg/kg           mg/kg         mg/kg           ND         20.0           84.9 %         mg/kg           ND         25.0           ND         50.0           103 %         mg/kg           mg/kg         mg/kg	Reporting           Result         Limit         Dilution           mg/kg         Mg/kg         Analy           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           MD         0.0250         1           MD         20.0250         1           Mg/kg         mg/kg         Analy           ND         20.0         1           84.9 %         70-130           mg/kg         mg/kg         Analy           ND         25.0         1           ND         50.0         1           103 %         50-200           mg/kg         mg/kg         Analy	Reporting           Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0500         1         10/29/22           ND         0.0250         1         10/29/22           ND         70-130         10/29/22           mg/kg         mg/kg         Analyst: IY           ND         20.0         1         10/29/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/31/22           ND         50.0         1         10/31/22           ND         50.0         1         10/31/22           Mg/kg         mg/kg         Analyst: RAS	Reporting           Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/29/22         10/30/22           ND         0.0250         1         10/29/22         10/30/22           ND         0.0250         1         10/29/22         10/30/22           ND         0.0500         1         10/29/22         10/30/22           ND         0.0250         1         10/29/22         10/30/22           ND         0.0250         1         10/29/22         10/30/22           mg/kg         mg/kg         Analyst: IY         ND         20.02         1         10/29/22         10/30/22           mg/kg         mg/kg         Analyst: KM         ND         25.0         1         10/29/22         10/30/22           ND         25.0         1         10/31/22         11/01/22           ND         50.0         1         10/31/22         11/01/22           ND         50.0         1         10/31/22         11/01/22           mg/kg         mg/kg         Analyst: RAS         11/01/22



Surrogate: 4-Bromochlorobenzene-PID

### **QC Summary Data**

Mack EnergyProject Name:Klondike St Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden11/1/20222:21:09PM

Artesia NM, 88210		Project Number: Project Manager:		atalie Gladden				1	1/1/2022 2:21:09PM	
		Volatile O	rganics b	y EPA 8021	B				Analyst: IY	
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit		
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes	
Blank (2244064-BLK1)							Prepared: 10	0/29/22 An	alyzed: 10/30/22	
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	7.95		8.00		99.4	70-130				
LCS (2244064-BS1)							Prepared: 10	0/29/22 An	alyzed: 10/30/22	
Benzene	5.75	0.0250	5.00		115	70-130				
Ethylbenzene	4.57	0.0250	5.00		91.5	70-130				
Toluene	4.91	0.0250	5.00		98.3	70-130				
o-Xylene	4.65	0.0250	5.00		93.0	70-130				
p,m-Xylene	9.27	0.0500	10.0		92.7	70-130				
Total Xylenes	13.9	0.0250	15.0		92.8	70-130				
Surrogate: 4-Bromochlorobenzene-PID	7.98		8.00		99.7	70-130				
LCS Dup (2244064-BSD1)							Prepared: 10	0/29/22 An	alyzed: 10/30/22	
Benzene	5.62	0.0250	5.00		112	70-130	2.20	20		
Ethylbenzene	4.49	0.0250	5.00		89.8	70-130	1.83	20		
Toluene	4.80	0.0250	5.00		95.9	70-130	2.39	20		
o-Xylene	4.56	0.0250	5.00		91.3	70-130	1.82	20		
p,m-Xylene	9.12	0.0500	10.0		91.2	70-130	1.71	20		
Total Xylenes	13.7	0.0250	15.0		91.2	70-130	1.74	20		

70-130



### **QC Summary Data**

Mack EnergyProject Name:Klondike St Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden11/1/20222:21:09PM

	Non	halogenated	Organics	by EPA 80	15D - G	RO			Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2244064-BLK1)							Prepared: 1	0/29/22 Anal	yzed: 10/30/22
Fasoline Range Organics (C6-C10)	ND	20.0							

Blank (2244064-BLK1)						Prepared: 10	)/29/22 Ana	aryzea: 10/30/22
Gasoline Range Organics (C6-C10)	ND	20.0						
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.89		8.00	86.1	70-130			
LCS (2244064-BS2)						Prepared: 10	0/29/22 Ana	alyzed: 10/30/22
Gasoline Range Organics (C6-C10)	49.2	20.0	50.0	98.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.07		8.00	88.3	70-130			
LCS Dup (2244064-BSD2)						Prepared: 10	0/29/22 Ana	alyzed: 10/30/22
Gasoline Range Organics (C6-C10)	51.3	20.0	50.0	103	70-130	4.17	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.88		8.00	86.0	70-130			

# **QC Summary Data**

Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	•
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:21:09PM

Artesia NM, 88210		Project Manage	r: Na	ıtalie Gladder	1			11	/1/2022 2:21:09PN
	Nonha	logenated Or	ganics by l	EPA 8015I	D - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2245005-BLK1)							Prepared: 1	0/31/22 Ana	lyzed: 10/31/22
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	41.5		50.0		83.0	50-200			
LCS (2245005-BS1)							Prepared: 1	0/31/22 Ana	lyzed: 10/31/22
Diesel Range Organics (C10-C28)	204	25.0	250		81.6	38-132			
urrogate: n-Nonane	44.6		50.0		89.2	50-200			
Matrix Spike (2245005-MS1)				Source:	E210194-	09	Prepared: 1	0/31/22 Ana	lyzed: 10/31/22
Diesel Range Organics (C10-C28)	112	25.0	250	ND	44.6	38-132			
urrogate: n-Nonane	38.5		50.0		77.1	50-200			
Matrix Spike Dup (2245005-MSD1)				Source:	E210194-	09	Prepared: 1	0/31/22 Ana	lyzed: 10/31/22
Diesel Range Organics (C10-C28)	142	25.0	250	ND	56.6	38-132	23.7	20	M2
'urrogate: n-Nonane	38.0		50.0		76.1	50-200			



Chloride

M2, R3

#### **QC Summary Data**

Mack Energy		Project Name:	K	londike St Co	m 1H				Reported:
7 W. Compress Road		Project Number:	20	0046-0001					
Artesia NM, 88210		Project Manager	: N	atalie Gladder	n				11/1/2022 2:21:09PM
		Anions	by EPA	300.0/9056	4				Analyst: RAS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2245001-BLK1)							Prepared: 1	0/31/22 A	nalyzed: 10/31/22
Chloride	ND	20.0							
LCS (2245001-BS1)							Prepared: 1	0/31/22 A	nalyzed: 10/31/22
Chloride	245	20.0	250		98.1	90-110			
Matrix Spike (2245001-MS1)				Source:	E210194-	01	Prepared: 1	0/31/22 A	nalyzed: 10/31/22
Chloride	314	200	250	ND	125	80-120			M2
Matrix Spike Dup (2245001-MSD1)				Source:	E210194-	01	Prepared: 1	0/31/22 A	nalyzed: 10/31/22

250

200

ND

154

80-120

20.5

#### 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:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/01/22 14:21

M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.

R3 The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.

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.



ent: MACK FNER 64	Bill To			Lal	b Use	e Onl	У			TA		EPA Pi	ogram
ent: MACK ENERGY  Dject: KLONDIKE ST COM IH  Attention	ESS	Lab \	NO#			Job N	lumber	1D		3D	Standard	CWA	SDWA
oject Manager: Address:	2724 NW COUNTY ROAD	E 2	lok	24		20	our - 000 sis and Method	1	X			Page _/	RCRA
	HOBBS, NM 88240 393-9048				Ť	Allalys	sis and ivietno						HCHA
one: EMAIL TO	talie@energystaffingllc.com	8015	8015									State	
	nergystaffingllc.com	>	) by 8	3021	260	010	300.0	Z	×		X	UT AZ	IX
port due by:	Lab	DRO/ORO t	GRO/DRO by	BTEX by 8021	VOC by 8260	Metals 6010	Chloride	верос	100		1	Remarks	
mpled Sampled Matrix Containers Sample ID	Number	DRC	GRC	BTE	00	Me	Chic	86	BGDOC			Remarks	
10/27/12 5 1 COMP 47-4								X					
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51-4	5							Ц					
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53-4								H	-				
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55.4	9							1					19
56.4	10							1					
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ield sampler), attest to the validity and authenticity of this sample. I am aware that tan	g with or intentionally mislabelling the sampl	le locati	on,			110000	s requiring thermal p						led or receive
eld sampler), attest to the validity and authenticity of this sample. I am aware that tan e or time of collection is considered fraud and may be grounds for legal action.  Time  Rece	Sampled by M. RIVER 1	11	La	0 1			in ice at an avg tem					days.	CAUCA
inquished by: (Signature)  Date  Time  Recel  10/27/11	Date	SE	Time	3.	U	Rece	eived on ice:	5.75h 30	ab U	se Onl	У		
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inquished by: (Signature) Date Time Rece	by. (Signature)		, iiiic			AVG	Temp °C	L					
nple Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other					<b>p</b> - po	oly/pl	astic, <b>ag</b> - amb						
te: Samples are discarded 30 days after results are reported unless other arra mples is applicable only to those samples received by the laboratory with this	nents are made. Hazardous samples wil	ll be re	turned	to cli	ent or	dispo	sed of at the clie	ent exp	pense.	. The re	eport for the a	nalysis of the	above

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roject:	YACK (LOND)	Ke S	TCBI	y IH	Attention: ESS		Lab	WO#				Number	1D	2D		Standard	CWA	SDWA
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ddress:					City, State, Zip HOBBS, NM 8	8240				1	Analy	sis and Meth						RCRA
ity, Stat	e, Zip				Phone: 575-393-9048													
hone:					EMAIL TO: Natalie@energystaffi		8015	8015		1						NAAL CO.	State	LTVI
mail:					Dakoatah@energystaffingllc.com	n	p	by 8	321	9	10	0.00	ΣZ	×			UT AZ	TX
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Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID		Lab Number	DRO/ORO	GRO/DRO by	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	верос	BGDOC			Remarks	
	10/27/22	S	1.	COMP	57-4	11	r.						X					
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(field same	alar) attact to	the validity	and author	ticity of this sample	e. Lam aware that tampering with or intentionally mis	slahelling the same	le locat	ion.			Sampl	es requiring thern	nal preserv	ation m	ust be rec	ceived on ice the day	they are samp	pled or receiv
late or time	of collection	is considere	d fraud and	may be grounds fo	e. I am aware that tampering with or intentionally mis or legal action. Sampled by: M. Cruston	KRA 1/2		-			packe	d in ice at an avg t	emp above	0 but l	ess than 6	°C on subsequent d	ays.	
Relinguish	ed by: (Sign:	ature)	Date	e iiii	Received by: (\$ignat@re)	Date	~	Time	0	,)				ab U	se On	lý	ALCOHOL:	11/2/1
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Relinguish	ed by: (Sign	ature)	Date	10-262 Tin	Received by: (Signature)	Pate 101	31/22	Time	:00	1	T1		<u>T2</u>			<u>T3</u>		
Relinguish	ed by: (Sign	ature)	Date	e Tin	Received by: (Signature)	Date		Time			AVO	G Temp °C_	4					
		1.6.11.6	- Al - L	Aqueous, O - Other		Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA												

( anvirator

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Printed: 10/31/2022 9:08:22AM

#### **Envirotech Analytical Laboratory**

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.

	00:	Work Order ID: E210194	
In: 10/28/22 16	i·34	Logged In By: Caitlin C	hristian
	2:00 (1 day TAT)	Logged in By. Cultum C	iii istiaii
Ves			
	Comion I	IDC	
	Carrier: <u>C</u>	<u>rs</u>	
103	_	Comments/Resolut	<u>ion</u>
			_
Yes		Project has been separated into	2 reports
		due to sample volume. Workor	ders are as
Yes		follows: E210194 and E210194	5 Project
Yes			•
			provided on
		COC.	
Yes 5			
<u>4°C</u>			
N			
Yes			
**			
No			
No			
INO			
No			
NA			
No			
NA S	Subcontract Lab	: NA	
	Yes Yes Yes No NA Yes  The second of the sec	Yes	Yes Yes Yes Yes Yes Yes Yes Yes  The project has been separated into due to sample volume. Workord follows: E210194 and E210195 manager and time sampled not COC.  No NA Yes  4°C  No NA NA NA NA NA NA NA NA NA NO

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: Klondike St Com 1H

Work Order: E210195

Job Number: 20046-0001

Received: 10/31/2022

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 11/1/22

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. Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 11/1/22

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike St Com 1H

Workorder: E210195

Date Received: 10/31/2022 9:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/31/2022 9:00:00AM, under the Project Name: Klondike St Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike St Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881

Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

**Alexa Michaels** 

Sample Custody Officer Office: 505-632-1881

labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area Lynn Jarboe

Technical Representative/Client Services

Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

West Texas Midland/Odessa Area Rayny Hagan Technical Representative

Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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### Sample Summary

Mack Energy	Project Name:	Klondike St Com 1H	Reported:		
7 W. Compress Road	Project Number:	20046-0001	Keporteu.		
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/01/22 14:10		

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Comp 67 - 4'	E210195-01A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 68 - 4'	E210195-02A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 69 - 4'	E210195-03A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 70 - 4'	E210195-04A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 71 - 4'	E210195-05A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 72 - 4'	E210195-06A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 73 - 4'	E210195-07A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 74 - 4'	E210195-08A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 75 - 4'	E210195-09A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 76 - 4'	E210195-10A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 77 - 4'	E210195-11A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 78 - 4'	E210195-12A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 79 - 4'	E210195-13A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 80 - 4'	E210195-14A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 81 - 4'	E210195-15A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 82 - 4'	E210195-16A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 83 - 4'	E210195-17A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.
Comp 84 - 4'	E210195-18A	Soil	10/27/22	10/31/22	Glass Jar, 4 oz.

Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 67 - 4' E210195-01

	E210193-01				
Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0500	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
	100 %	70-130	10/29/22	10/31/22	
mg/kg	mg/kg	Analyst: IY			Batch: 2244065
ND	20.0	1	10/29/22	10/31/22	
	86.1 %	70-130	10/29/22	10/31/22	
mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
ND	25.0	1	10/31/22	10/31/22	
ND	50.0	1	10/31/22	10/31/22	
	111 %	50-200	10/31/22	10/31/22	
mg/kg	mg/kg	Analy	rst: RAS		Batch: 2245002
ND	200	10	10/31/22	11/01/22	
	mg/kg ND ND ND ND ND ND ND ND ND Mg/kg ND mg/kg	Result         Reporting Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           I00 %           mg/kg         mg/kg           ND         20.0           86.1 %         mg/kg           ND         25.0           ND         50.0           III %         mg/kg           mg/kg         mg/kg	Reporting           Result         Limit         Dilution           mg/kg         mg/kg         Analy           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           MD         0.0250         1           MD         20.0250         1           Mg/kg         mg/kg         Analy           ND         20.0         1           86.1 %         70-130           mg/kg         mg/kg         Analy           ND         25.0         1           ND         50.0         1           111 %         50-200           mg/kg         mg/kg         Analy	Reporting           Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0500         1         10/29/22           ND         70-130         10/29/22           mg/kg         mg/kg         Analyst: IY           ND         20.0         1         10/29/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/31/22           ND         50.0         1         10/31/22           ND         50.0         1         10/31/22           Mg/kg         mg/kg         Analyst: RAS	Reporting           Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0500         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           mg/kg         mg/kg         Analyst: IY         ND         20.0         1         10/29/22         10/31/22           mg/kg         mg/kg         Analyst: KM         ND         25.0         1         10/29/22         10/31/22         10/31/22           ND         25.0         1         10/31/22         10/31/22         10/31/22         10/31/22           ND         50.0         1         10/31/22         10/31/22         10/31/22           ng/kg         mg/kg         Analyst: RAS         10/31/22         10/31/22



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 68 - 4' E210195-02

		E2101/3 02				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	yst: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/30/22	
thylbenzene	ND	0.0250	1	10/29/22	10/30/22	
oluene	ND	0.0250	1	10/29/22	10/30/22	
-Xylene	ND	0.0250	1	10/29/22	10/30/22	
,m-Xylene	ND	0.0500	1	10/29/22	10/30/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/30/22	
urrogate: 4-Bromochlorobenzene-PID		104 %	70-130	10/29/22	10/30/22	
Jonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/30/22	
urrogate: 1-Chloro-4-fluorobenzene-FID		79.8 %	70-130	10/29/22	10/30/22	
onhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Anal	yst: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Dil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
urrogate: n-Nonane		125 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Anal	yst: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 69 - 4' E210195-03

		E210193-03				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
-	//	n	A 1	•		D : 1 2244065
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy			Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		99.2 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.1 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		98.3 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	400	20	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 70 - 4' E210195-04

		E210173-04				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		104 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	Analyst: IY		Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.0 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		73.6 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
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Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 71 - 4' E210195-05

		E210193-03				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
-				*	,	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy			Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		104 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.5 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		78.6 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	400	20	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
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Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 72 - 4' E210195-06

		E210175-00				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg mg/kg		Analyst: IY			Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		83.9 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		103 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	400	20	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
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Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

# Comp 73 - 4' E210195-07

		E210193-07				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	Analyst: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		98.4 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	Analyst: IY		Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.1 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	10/31/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	10/31/22	
Surrogate: n-Nonane		102 %	50-200	10/31/22	10/31/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	400	20	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 74 - 4' E210195-08

		E210193-06				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	Analyst: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		100 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	Analyst: IY		Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.7 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		107 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: RAS		Batch: 2245002
Chloride	ND	400	20	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 75 - 4' E210195-09

		E210193-09				
Angles	D14	Reporting	Dilution	Doggan	A lama d	Notes
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	Analyst: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
o,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		105 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.8 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		114 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: RAS		Batch: 2245002
Chloride	ND	400	20	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 76 - 4' E210195-10

	E2101/3 10				
Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Analys	st: IY		Batch: 2244065
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0500	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
	98.8 %	70-130	10/29/22	10/31/22	
mg/kg	mg/kg	Analyst: IY			Batch: 2244065
ND	20.0	1	10/29/22	10/31/22	
	84.9 %	70-130	10/29/22	10/31/22	
mg/kg	mg/kg	Analys	st: KM		Batch: 2245004
ND	25.0	1	10/31/22	11/01/22	
ND	50.0	1	10/31/22	11/01/22	
	109 %	50-200	10/31/22	11/01/22	
mg/kg	mg/kg	Analys	st: RAS		Batch: 2245002
ND	200	10	10/31/22	11/01/22	
	mg/kg ND Mg/kg ND mg/kg	Result         Reporting           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0500           ND         0.0250           98.8 %         mg/kg           mg/kg         mg/kg           ND         20.0           84.9 %         mg/kg           ND         25.0           ND         50.0           109 %         mg/kg           mg/kg         mg/kg	Reporting           Result         Limit         Dilution           mg/kg         mg/kg         Analy           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           mg/kg         mg/kg         Analy           ND         20.0         1           84.9 %         70-130         70-130           mg/kg         mg/kg         Analy           ND         25.0         1           ND         50.0         1           109 %         50-200           mg/kg         mg/kg         Analy	Reporting           Result         Limit         Dilution         Prepared           mg/kg         MS         Analyst: IY           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0500         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           mg/kg         Mg/kg         Analyst: IY           ND         20.0         1         10/29/22           mg/kg         Mg/kg         Analyst: KM           ND         25.0         1         10/31/22           ND         50.0         1         10/31/22           ND         50.0         1         10/31/22           Mg/kg         Mg/kg         Analyst: RAS	Reporting           Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0500         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           mg/kg         mg/kg         Analyst: IY           ND         20.0         1         10/29/22         10/31/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/31/22         11/01/22           ND         50.0         1         10/31/22         11/01/22           ND         50.0         1         10/31/22         11/01/22           mg/kg         mg/kg         Analyst: RAS         11/01/22



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

### Comp 77 - 4'

		E210195-11				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		102 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.9 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		102 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 78 - 4' E210195-12

		E210173-12				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		104 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		82.1 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		84.5 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 79 - 4' E210195-13

		2210176 16				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	st: IY		Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		82.4 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		110 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

### Comp 80 - 4'

		E210195-14				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	vst: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		98.5 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	vst: IY		Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		85.7 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		99.2 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	vst: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 81 - 4' E210195-15

	E210175 15				
Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
ND	0.0500	1	10/29/22	10/31/22	
ND	0.0250	1	10/29/22	10/31/22	
	101 %	70-130	10/29/22	10/31/22	
mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
ND	20.0	1	10/29/22	10/31/22	
	86.5 %	70-130	10/29/22	10/31/22	
mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
ND	25.0	1	10/31/22	11/01/22	
ND	50.0	1	10/31/22	11/01/22	
	96.4 %	50-200	10/31/22	11/01/22	
mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
ND	200	10	10/31/22	11/01/22	
	mg/kg ND Mg/kg ND mg/kg	Result         Reporting Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           ND         0.0250           ND         0.0250           MD         0.0250           MB/kg         mg/kg           MB/kg         mg/kg           ND         20.0           86.5 %         mg/kg           ND         25.0           ND         50.0           96.4 %         mg/kg           mg/kg         mg/kg	Reporting           Result         Limit         Dilution           mg/kg         mg/kg         Analy           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           ND         0.0250         1           MD         0.0250         1           Mg/kg         mg/kg         Analy           ND         20.0         1           86.5 %         70-130         1           mg/kg         mg/kg         Analy           ND         25.0         1           ND         50.0         1           96.4 %         50-200           mg/kg         mg/kg         Analy	Reporting           Result         Limit         Dilution         Prepared           mg/kg         Manalyst: IY           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0500         1         10/29/22           ND         0.0250         1         10/29/22           ND         0.0250         1         10/29/22           mg/kg         Manalyst: IY         ND         20.0         1         10/29/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/31/22           ND         50.0         1         10/31/22           MD         50.0         1         10/31/22           mg/kg         Mg/kg         Analyst: KM	Reporting           Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0500         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           ND         0.0250         1         10/29/22         10/31/22           mg/kg         mg/kg         Analyst: IY           ND         20.0         1         10/29/22         10/31/22           mg/kg         mg/kg         Analyst: KM           ND         25.0         1         10/31/22         11/01/22           ND         50.0         1         10/31/22         11/01/22           ND         50.0         1         10/31/22         11/01/22           mg/kg         mg/kg         Analyst: RAS         11/01/22



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 82 - 4' E210195-16

		E210173-10				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		101 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		84.8 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		102 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

#### Comp 83 - 4' E210195-17

		E210173-17				
Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		104 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: IY		Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		81.7 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	st: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		99.7 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

### Comp 84 - 4'

		E210195-18				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	rst: IY		Batch: 2244065
Benzene	ND	0.0250	1	10/29/22	10/31/22	
Ethylbenzene	ND	0.0250	1	10/29/22	10/31/22	
Toluene	ND	0.0250	1	10/29/22	10/31/22	
o-Xylene	ND	0.0250	1	10/29/22	10/31/22	
p,m-Xylene	ND	0.0500	1	10/29/22	10/31/22	
Total Xylenes	ND	0.0250	1	10/29/22	10/31/22	
Surrogate: 4-Bromochlorobenzene-PID		103 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	rst: IY		Batch: 2244065
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/29/22	10/31/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		82.0 %	70-130	10/29/22	10/31/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analy	rst: KM		Batch: 2245004
Diesel Range Organics (C10-C28)	ND	25.0	1	10/31/22	11/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	10/31/22	11/01/22	
Surrogate: n-Nonane		101 %	50-200	10/31/22	11/01/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	rst: RAS		Batch: 2245002
Chloride	ND	200	10	10/31/22	11/01/22	



		QC SI	umma	iry Dat	a				
Mack Energy 7 W. Compress Road		Project Name: Project Number:		londike St Co 0046-0001	m 1H				Reported:
Artesia NM, 88210		Project Manager:	N	atalie Gladde	n				11/1/2022 2:10:35PM
		Volatile O	rganics b	oy EPA 802	21B				Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2244065-BLK1)							Prepared: 1	0/29/22 A	analyzed: 10/30/22
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
o,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.46		8.00		106	70-130			
LCS (2244065-BS1)							Prepared: 1	0/29/22 A	analyzed: 10/30/22
Benzene	5.32	0.0250	5.00		106	70-130			
Ethylbenzene	4.24	0.0250	5.00		84.9	70-130			
Toluene	4.54	0.0250	5.00		90.7	70-130			
o-Xylene	4.34	0.0250	5.00		86.8	70-130			
o,m-Xylene	8.61	0.0500	10.0		86.1	70-130			
Total Xylenes	13.0	0.0250	15.0		86.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.18		8.00		102	70-130			
Matrix Spike (2244065-MS1)				Source:	E210195-	02	Prepared: 1	0/29/22 A	analyzed: 10/30/22
Benzene	5.21	0.0250	5.00	ND	104	54-133			
Ethylbenzene	4.16	0.0250	5.00	ND	83.1	61-133			
Toluene	4.44	0.0250	5.00	ND	88.8	61-130			
-Xylene	4.23	0.0250	5.00	ND	84.7	63-131			
o,m-Xylene	8.44	0.0500	10.0	ND	84.4	63-131			
Fotal Xylenes	12.7	0.0250	15.0	ND	84.5	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.03		8.00		100	70-130			
Matrix Spike Dup (2244065-MSD1)					E210195-				analyzed: 10/30/22
Benzene	4.38	0.0250	5.00	ND	87.5	54-133	17.4	20	
Ethylbenzene	3.48	0.0250	5.00	ND	69.6	61-133	17.8	20	
Toluene	3.72	0.0250	5.00	ND	74.5	61-130	17.6	20	
o-Xylene	3.55	0.0250	5.00	ND	71.1	63-131	17.5	20	
p,m-Xylene	7.07	0.0500	10.0	ND	70.7	63-131	17.6	20	
Total Xylenes	10.6	0.0250	15.0	ND	70.8	63-131	17.6	20	

103

70-130



Surrogate: 4-Bromochlorobenzene-PID

8.24

Mack EnergyProject Name:Klondike St Com 1HReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden11/1/20222:10:35PM

Artesia NM, 88210		Project Manage	r: Na	italie Gladder	1			11/	1/2022 2:10:35PM
	Non	halogenated	Organics l	by EPA 80	15D - Gl	RO			Analyst: IY
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
Blank (2244065-BLK1)							Prepared: 1	0/29/22 Anal	yzed: 10/30/22
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.46		8.00		80.8	70-130			
LCS (2244065-BS2)							Prepared: 1	0/29/22 Anal	yzed: 10/30/22
Gasoline Range Organics (C6-C10)	47.0	20.0	50.0		94.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.66		8.00		83.3	70-130			
Matrix Spike (2244065-MS2)				Source:	E210195-	02	Prepared: 1	0/29/22 Anal	yzed: 10/30/22
Gasoline Range Organics (C6-C10)	45.2	20.0	50.0	ND	90.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.87		8.00		85.9	70-130			
Matrix Spike Dup (2244065-MSD2)				Source:	E210195-	02	Prepared: 1	0/29/22 Anal	yzed: 10/31/22
Gasoline Range Organics (C6-C10)	38.6	20.0	50.0	ND	77.2	70-130	15.6	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.78		8.00		84.8	70-130			

Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	•
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/1/2022 2:10:35PM

Artesia NM, 88210		Project Manager	r: Na	italie Gladder	1				11/1/2022 2:10:35PN
_	Nonha	logenated Or	ganics by	EPA 8015I	D - DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2245004-BLK1)							Prepared: 1	0/31/22 Ar	nalyzed: 10/31/22
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	50.8		50.0		102	50-200			
LCS (2245004-BS1)							Prepared: 1	0/31/22 Ar	nalyzed: 10/31/22
Diesel Range Organics (C10-C28)	241	25.0	250		96.3	38-132			
urrogate: n-Nonane	49.6		50.0		99.1	50-200			
Matrix Spike (2245004-MS1)				Source:	E210195-	06	Prepared: 1	0/31/22 Ar	nalyzed: 10/31/22
Diesel Range Organics (C10-C28)	136	25.0	250	ND	54.3	38-132			
urrogate: n-Nonane	45.0		50.0		90.0	50-200			
Matrix Spike Dup (2245004-MSD1)				Source:	E210195-	06	Prepared: 1	0/31/22 Ar	nalyzed: 10/31/22
Diesel Range Organics (C10-C28)	145	25.0	250	ND	58.1	38-132	6.81	20	
urrogate: n-Nonane	43.5		50.0		87.0	50-200			



Mack Energy 7 W. Compress Road		Project Name: Project Number:		Ilondike St Co 0046-0001	m 1H				Reported:
Artesia NM, 88210		Project Manager		latalie Gladder	1				11/1/2022 2:10:35PM
		Anions	by EPA	300.0/9056 <i>E</i>	4				Analyst: RAS
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2245002-BLK1)							Prepared:	10/31/22 A	analyzed: 11/01/22
Chloride	ND	20.0							
LCS (2245002-BS1)							Prepared:	10/31/22 A	analyzed: 11/01/22
Chloride	244	20.0	250		97.5	90-110			
Matrix Spike (2245002-MS1)				Source:	E210195-	)1	Prepared:	10/31/22 A	analyzed: 11/01/22
Chloride	271	200	250	ND	108	80-120			
Matrix Spike Dup (2245002-MSD1)				Source:	E210195-	)1	Prepared:	10/31/22 A	analyzed: 11/01/22
Chloride	276	200	250	ND	110	80-120	1.82	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:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	11/01/22 14:10

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.



ient: MACK EN/LOCAL	Bill To				La	h Use	e Onl	V	1		TAT		EPA Pi	rogram
ent: MACK EVERCY oject: KLONDIKE ST COM 14	Attention: ESS		Lab V	VO#				lumber	1D	2D	3D :	Standard	CWA	SDWA
oject Manager:	Address: 2724 NW COUNTY ROA	D	E 2	101	195			1046-000		X				
ldress:	City, State, Zip HOBBS, NM 88240							sis and Metho		/		The state of		RCRA
cy, State, Zip	Phone: 575-393-9048											1		
one:	EMAIL TO: Natalie@energystaffingllc.	com	8015	8015								1114 60	State	LTV
nail:	Dakoatah@energystaffingllc.com		2	by 8	021	9	10	300.0	S	×		NM CO	UI AZ	IX
port due by:		thele	ORO	DRO	by 8	34 82	s 60	de 3						
Time Date Matrix No. of Containers Sample ID		Lab Number	DRO/ORO	GRO/DRO by	BTEX by 8021	VOC by 8260	Metals 6010	Chloride	BGDOC	верос			Remarks	
10/27/2 5 1 COMP 67	7.4	1							X				Page Sepa Pic CWA  State UT AZ  Remarks	
10/21/21 S COMP 67	8-41	2												
69	7-4-	3												
70	7-4-	Ψ												
	1-4-	2												
	2-4-	10							-					
1 / 1 73	3-4-	7												
74	4-4-	8												
7	5-4-	9												¥
76	4-4- 5-4- 6-4-	10												
dditional Instructions:														
field sampler), attest to the validity and authenticity of this sample. I am	n aware that tampering with or intentionally mislabellin	ng the sampl	e locatio	on,			1	es requiring thermal I in ice at an avg ten						led or receiv
te or time of collection is considered fraud and may be grounds for legal	Received has (Sanatura)	Date		Time		1 -			1	ab II	se Only		W 7. 1	
field sampler), attest to the validity and authenticity of this sample. I am te or time of collection is considered fraud and may be grounds for legal linquished by: (Signature)  Date  Time			0)	3	.0	0	Rece	eived on ice:		) N				
dinquished by: (Signature) Date 10-28-04 Time	Received by: (Signature)	Date 10131	w	Time	(1.70)		T1		<u>T2</u>			<u>T3</u>		X
linquished by: (Signature) Date Time	Received by: (Signature)	Date		Time			AVIC	Temp °C.	L					
nple Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other		Carrier	L. Transco		AVG Temp °C						VOA			

t or disposed of at the client expense. The report for the analysis of the above or on the report.

roject Manager:

ddress:

hone:

mail:

Time

Sampled

ity, State, Zip

Report due by:

Sampled

16/27/21

Project: KLONOIKE ST COMIH

Matrix

Bill To

2724 NW COUNTY ROAD

ESS

Phone: 575-393-9048

City, State, Zip HOBBS, NM 88240

Dakoatah@energystaffingllc.com

EMAIL TO: Natalie@energystaffingllc.com

Attention:

Address:

Sample ID

COMP

COMP 77-4'

Lab Use Only

Metals 6010

Job Number

200410-0001

Analysis and Method

Lab WO#

DRO/ORO by 8015 GRO/DRO by 8015

Lab

Number

16

E21005

1D 2D 3D

SZ

	EF	EPA Program						
Standard	CV	CWA SDWA						
			RC	RA				
				.,,				
	Sta							
NM CO	UT	AZ	TX					
X								
/	Ren	narks						
_								
				_				
			-	-				

Additional Instructions:									
I, (field sampler), attest to the validity a		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 10/27/27	Time	Received by (signature)	Date 10-28 01	Time: Ul	Received on ice:	Lab Use Only  (Y)/ N		
Relinquished by: (Signature)	10-28 d	Time /5	Received by: (Signature)	Date   31/2	Time	<u>T1</u>	<u>T2</u>	<u>T3</u>	× .
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	AVG Temp °C			
Sample Matrix: S - Soil, Sd - Solid, Sg - S	Sludge, A - Aqueous, O -	Other		Container Typ	e: <b>g -</b> glass, <b>p</b> - p	oly/plastic, ag - amb	oer glass, v - VOA		
Note: Samples are discarded 30 da	ove after results are re	anorted unloss	other arrangements are made Hazardo	us samples will be re	turned to client o	r disposed of at the cli	ent expense. The repo	rt 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.

Page 295 of 34

Page 296 of 340

Printed: 10/31/2022 9:19:29AM

## **Envirotech Analytical Laboratory**

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.

te Received:	10/31/22 0	9:00	Work Order ID:	E210195
te Logged In:	10/28/22 1	6:38	Logged In By:	Caitlin Christian
e Date:			88	
	Yes			
he COC				
		Carrier: I	IPS	
analyses?		carrer. <u>c</u>	<u> </u>	
<b>,</b>	Yes			
field,		r	Commen	ts/Resolution
			Day 1 - 4 1 1	4-1:-4-2
	Yes		•	-
			due to sample volume.	Workorders are as
	Yes		follows: E210194 and l	E210195. Project
	Yes			<del>-</del>
	Yes		•	And Hot provided off
	No		CUC.	
6°±2°C eived w/i 15	Yes			
perature: 4°C	<u> </u>			
	No			
	NA			
	NA			
	NA			
	Yes			
collected?	Yes			
ition:				
	Yes			
	Yes	ı		
	No			
40				
rved?				
ls?	No			
	No			
!?	NA			
	No			
		Subcontract Lab	27.4	
who?	NA	Subcontract Lab	: NA	
	he COC analyses? field,  6°±2°C eived w/i 15 aperature: 4°0 collected? ation:	Yes he COC Yes Yes analyses? Yes field,  Yes  Yes Yes Yes Yes Yes Yes No NA	Yes he COC Yes Yes Analyses? Yes Yes field,  Yes Yes Yes Yes Yes Yes Yes Yes No NA	Yes he COC Yes Yes Yes Carrier: UPS analyses? Yes Yes field,  Yes field,  Yes  Yes Aves Follows: E210194 and I manager and time samp COC.  No NA

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: Klondike St Com 1H

Work Order: E406142

Job Number: 20046-0001

Received: 6/17/2024

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 6/18/24

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.

Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.

Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.

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

Date Reported: 6/18/24

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: Klondike St Com 1H

Workorder: E406142

Date Received: 6/17/2024 6:00:08AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/17/2024 6:00:08AM, under the Project Name: Klondike St Com 1H.

The analytical test results summarized in this report with the Project Name: Klondike St Com 1H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881

Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

Laboratory Administrator Office: 505-632-1881

rainaschwanz@envirotech-inc.com

Field Offices:

**Southern New Mexico Area** Lynn Jarboe

Laboratory Technical Representative Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

Michelle Golzales

Client Representative

Office: 505-421-LABS(5227)

Cell: 505-947-8222

mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com



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## **Sample Summary**

Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/18/24 16:38

Client Sample ID	Lab Sample ID Matrix	Sampled Received	Container
COMP 14-6'	E406142-01A Soil	06/13/24 06/17/24	Glass Jar, 2 oz.



# **Sample Data**

Mack Energy	Project Name:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/18/2024 4:38:39PM

## COMP 14-6' E406142-01

Result	Reporting Limit		Prepared	Analyzed	Notes
mg/kg	mg/kg	Ana	ılyst: IY		Batch: 2425003
ND	0.0250	1	06/17/24	06/17/24	
ND	0.0250	1	06/17/24	06/17/24	
ND	0.0250	1	06/17/24	06/17/24	
ND	0.0250	1	06/17/24	06/17/24	
ND	0.0500	1	06/17/24	06/17/24	
ND	0.0250	1	06/17/24	06/17/24	
	92.5 %	70-130	06/17/24	06/17/24	
mg/kg	mg/kg	Ana	ılyst: IY		Batch: 2425003
ND	20.0	1	06/17/24	06/17/24	
	97.0 %	70-130	06/17/24	06/17/24	
mg/kg	mg/kg	Ana	ılyst: NV		Batch: 2425004
ND	25.0	1	06/17/24	06/18/24	
ND	50.0	1	06/17/24	06/18/24	
	116 %	50-200	06/17/24	06/18/24	
mg/kg	mg/kg	Ana	ılyst: DT		Batch: 2425008
41.9	20.0	1	06/17/24	06/17/24	
	mg/kg ND ND ND ND ND ND ND ND ND Mg/kg ND mg/kg	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           MD         0.0250           MD         0.0250           MD         20.0           97.0 %         mg/kg           MD         25.0           ND         50.0           I16 %         mg/kg           mg/kg         mg/kg	mg/kg         mg/kg         Ana           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           92.5 %         70-130           mg/kg         mg/kg         Ana           ND         20.0         1           97.0 %         70-130         mg/kg           ND         25.0         1           ND         50.0         1           116 %         50-200           mg/kg         mg/kg         Ana	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         06/17/24           ND         0.0250         1         06/17/24           ND         0.0250         1         06/17/24           ND         0.0250         1         06/17/24           ND         0.0500         1         06/17/24           ND         0.0250         1         06/17/24           mg/kg         mg/kg         Analyst: IY           ND         20.0         1         06/17/24           mg/kg         mg/kg         Analyst: NV           ND         25.0         1         06/17/24           ND         25.0         1         06/17/24           ND         50.0         1         06/17/24           ND         50.0         1         06/17/24           ND         50.0         1         06/17/24           mg/kg         mg/kg         Analyst: DT	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: IY           ND         0.0250         1         06/17/24         06/17/24           ND         0.0500         1         06/17/24         06/17/24           ND         0.0250         1         06/17/24         06/17/24           Mg/kg         mg/kg         Analyst: IY           ND         20.0         1         06/17/24         06/17/24           Mg/kg         mg/kg         Analyst: IY         06/17/24         06/17/24           Mg/kg         mg/kg         Analyst: NV         ND         25.0         1         06/17/24         06/18/24           ND         25.0         1         06/17/24         06/18/24           ND         50.0         1         06/17/24         06/18/24           ND         50.0         1         06/17/24         06/18/24           Mg/kg<



Klondike St Com 1H Mack Energy Project Name: Reported: 7 W. Compress Road Project Number: 20046-0001 Artesia NM, 88210 Project Manager: Natalie Gladden 6/18/2024 4:38:39PM **Volatile Organics by EPA 8021B** Analyst: IY Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % Notes Blank (2425003-BLK1) Prepared: 06/17/24 Analyzed: 06/17/24 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 0.0500 Total Xylenes ND 0.0250 Surrogate: 4-Bromochlorobenzene-PID 7.40 8.00 92.5 70-130 LCS (2425003-BS1) Prepared: 06/17/24 Analyzed: 06/17/24 4.65 93.0 70-130 5.00 Benzene 0.0250 Ethylbenzene 4.49 0.0250 5.00 89.8 70-130 4.59 0.0250 5.00 91.9 70-130 Toluene o-Xylene 4.48 0.0250 5.00 89.7 70-130 9.14 10.0 91.4 70-130 0.0500 p.m-Xvlene 90.8 70-130 13.6 15.0 Total Xylenes 0.0250 8.00 94.5 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.56 Matrix Spike (2425003-MS1) Source: E406144-01 Prepared: 06/17/24 Analyzed: 06/17/24 4.82 0.0250 5.00 ND 54-133 Benzene ND 61-133 Ethylbenzene 4.68 0.0250 5.00 93.6 Toluene 4.78 0.0250 5.00 ND 95.6 61-130 4.67 ND 93.4 63-131 5.00 0.0250 o-Xylene p,m-Xylene 9.51 0.0500 10.0 ND 95.1 63-131 0.0250 15.0 ND 63-131 Total Xylenes 70-130 Surrogate: 4-Bromochlorobenzene-PID 7.48 8.00 Matrix Spike Dup (2425003-MSD1) Source: E406144-01 Prepared: 06/17/24 Analyzed: 06/17/24 4.78 0.0250 5.00 ND 54-133 0.837 20 61-133 0.808 4.64 0.0250 5.00 ND 92.9 20 Ethylbenzene Toluene 4 73 0.0250 5.00 ND 947 61-130 0.981 20 4.63 5.00 ND 92.7 63-131 0.815 20 o-Xylene 0.0250 0.647

10.0

15.0

8.00

0.0500

0.0250

ND

ND

94.5

93.9

93.4

63-131

63-131

70-130

0.702

20

20



p,m-Xylene

Total Xylenes

Surrogate: 4-Bromochlorobenzene-PID

9.45

14.1

7.47

Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	•
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/18/2024 4:38:39PM

Artesia NM, 88210		Project Manage	r: Na	talie Gladder	1			6/1	8/2024 4:38:39PM
	Non	halogenated	Organics l	by EPA 80	15D - GI	RO			Analyst: IY
Analyte	Result mg/kg	Reporting Limit	Spike Level	Source Result mg/kg	Rec	Rec Limits	RPD %	RPD Limit %	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%0	90	70	70	Notes
Blank (2425003-BLK1)							Prepared: 0	6/17/24 Analy	yzed: 06/17/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.99		8.00		99.9	70-130			
LCS (2425003-BS2)							Prepared: 0	6/17/24 Analy	yzed: 06/17/24
Gasoline Range Organics (C6-C10)	49.8	20.0	50.0		99.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.88		8.00		98.5	70-130			
Matrix Spike (2425003-MS2)				Source:	E406144-0	)1	Prepared: 0	6/17/24 Analy	yzed: 06/17/24
Gasoline Range Organics (C6-C10)	50.7	20.0	50.0	ND	101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.81		8.00		97.6	70-130			
Matrix Spike Dup (2425003-MSD2)				Source:	E406144-0	01	Prepared: 0	6/17/24 Anal	yzed: 06/17/24
Gasoline Range Organics (C6-C10)	49.5	20.0	50.0	ND	99.0	70-130	2.44	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.81		8.00		97.6	70-130			

Mack Energy	Project Name:	Klondike St Com 1H	Reported:
7 W. Compress Road	Project Number:	20046-0001	
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/18/2024 4:38:39PM

Artesia NM, 88210		Project Manager	r: Na	talie Gladder	1			· ·	/18/2024 4:38:39PN
	Nonha	logenated Or	ganics by l	EPA 8015I	) - DRO	/ORO			Analyst: NV
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2425004-BLK1)							Prepared: 0	6/17/24 An	alyzed: 06/18/24
tiesel Range Organics (C10-C28)	ND	25.0							
il Range Organics (C28-C36)	ND	50.0							
urrogate: n-Nonane	48.7		50.0		97.4	50-200			
.CS (2425004-BS1)							Prepared: 0	6/17/24 An	alyzed: 06/18/24
riesel Range Organics (C10-C28)	241	25.0	250		96.5	38-132			
urrogate: n-Nonane	47.8		50.0		95.7	50-200			
Matrix Spike (2425004-MS1)				Source:	E406140-0	04	Prepared: 0	6/17/24 An	alyzed: 06/18/24
tiesel Range Organics (C10-C28)	255	25.0	250	ND	102	38-132			
urrogate: n-Nonane	50.5		50.0		101	50-200			
Matrix Spike Dup (2425004-MSD1)				Source:	E406140-0	04	Prepared: 0	6/17/24 An	alyzed: 06/18/24
tiesel Range Organics (C10-C28)	252	25.0	250	ND	101	38-132	1.27	20	
urrogate: n-Nonane	51.6		50.0		103	50-200			

Mack Energy		Project Name:		londike St Co	m 1H				Reported:
7 W. Compress Road Artesia NM, 88210		Project Number: Project Manager		20046-0001 Natalie Gladden			6/18/2024 4:38:3		6/18/2024 4:38:39PM
		Anions	by EPA	300.0/9056 <i>E</i>	4				Analyst: DT
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2425008-BLK1)							Prepared: 0	6/17/24 A	nalyzed: 06/17/24
Chloride	ND	20.0							
LCS (2425008-BS1)							Prepared: 0	6/17/24 A	nalyzed: 06/17/24
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2425008-MS1)				Source:	E406141-	01	Prepared: 0	6/17/24 A	nalyzed: 06/17/24
Chloride	745	20.0	250	493	101	80-120			
Matrix Spike Dup (2425008-MSD1)				Source:	E406141-	01	Prepared: 0	6/17/24 A	nalyzed: 06/17/24
Chloride	731	20.0	250	493	95.3	80-120	1.88	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:	Klondike St Com 1H	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/18/24 16:38

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

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

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



Lab

Number

Bill To
Attention: ENERGY STAFFING SERVICES

Email: NATALIE@ENERGYSTAFFINGLLC.COM

BRITTNEY@ENERGYSTAFFINGLLC.COM

Address: 2724 NW COUNTY RD

Phone: 575-393-9048

COMP 14-6-

City, State, Zip HOBBS, NM 88240

Lab Use Only

VOC by 8260

Lab WO#

E406142

GRO/DRO by 8015

Job Number

20046-0001

Analysis and Method

**EPA Program** 

SDWA

RCRA

CWA

State

Remarks

NM CO UT AZ TX

TAT

Standard

3D

1D 2D

BGDOC

Project Manager:

City, State, Zip

Report due by:

Date

Sampled

6/13/24

Address:

Phone:

Email:

Time

Sampled

Client: MACK ENERGY Project: KLONDIKE ST COM 1H

Matrix

No. of

Containers

5

Sample ID

12
ð
Ξ
Page

					P. Commission				
			A Company of the Comp						
				6 4.3		2000			
Additional Instructions:									
I, (field sampler), attest to the validity and audate or time of collection is considered fraud			nat tampering with or intentionally mislab Sampled by:	elling the sample loca	ation,	Samples requiring thermal p packed in ice at an avg temp		d on ice the day they are sampled on subsequent days.	d or received
Relinquished by: (Signature)	Date	Time	Received by: (Signature) Michelle Gonzale	c 614.24	F 1215	Received on ice:	Lab Use Only  N	6	
Relinquished by: (Signature) Michelle Gonzales	Date 14-24	1530	Received by: (Signature)	6.14.L	y 1630	T1	<u>T2</u>	<u>T3</u>	
Relinquisited by: (Signature)	Gate 4.29	Time	Received by: (Signature)	6-17-24	Time	AVG Temp °C 4		17	
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge	A - Aqueous, O - C	ther	11	Container Ty	pe: g - glass, p -	poly/plastic, ag - amb	er glass, v - VOA		
Note: Samples are discarded 30 days af samples is applicable only to those sam	ter results are repulses received by	oorted unless other the laboratory wit	er arrangements are made. Hazardon h this COC. The liability of the laborat	us samples will be ory is limited to th	returned to client of amount paid for	or disposed of at the clie on the report.	ent expense. The repo	ort for the analysis of the a	bove



Printed: 6/17/2024 2:34:33PM

### **Envirotech Analytical Laboratory**

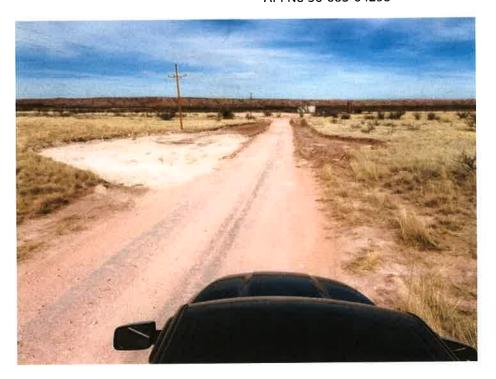
Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	06/17/24 06:0	00	Work Order ID:	E406142
Phone:	(575) 390-6397	Date Logged In:	06/14/24 16:5	54	Logged In By:	Alexa Michaels
Email:	Natalie@energystaffingllc.com	Due Date:	06/18/24 17:0	00 (1 day TAT)		
Ch-i	Contrador (COC)					
	Custody (COC)		37			
	ne sample ID match the COC?  The number of samples per sampling site location materials.	toh the COC	Yes			
	amples dropped off by client or carrier?	ich the COC	Yes			
	e COC complete, i.e., signatures, dates/times, requestion	stad analysas?	Yes No	Carrier: <u>C</u>	Couier	
	Il samples received within holding time?	sted analyses:	Yes			
	Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssis		165	ı	Commen	uts/Resolution
	Surn Around Time (TAT)  ECOC indicate standard TAT, or Expedited TAT?		Yes		Project manager and tin	me sampled are not
Sample C	· •				documented on the CO	C by client.
	sample cooler received?		Yes			3
	was cooler received in good condition?		Yes			
9. Was the	e sample(s) received intact, i.e., not broken?		Yes			
	custody/security seals present?		No			
	were custody/security seals intact?					
•	e sample received on ice? If yes, the recorded temp is 4°C,	: 2 601300	NA			
	Note: Thermal preservation is not required, if samples ar minutes of sampling visible ice, record the temperature. Actual sample	e received w/i 15	Yes			
		temperature. 4 C	<b>≟</b>			
Sample C	container queous VOC samples present?		No			
	OC samples collected in VOA Vials?		NA NA			
	head space less than 6-8 mm (pea sized or less)?		NA			
	trip blank (TB) included for VOC analyses?		NA NA			
	on-VOC samples collected in the correct containers	9	Yes			
	appropriate volume/weight or number of sample contain		Yes			
Field Lat		ners conceteur	105			
	field sample labels filled out with the minimum info	ormation:				
	ample ID?	ination.	Yes			
	ate/Time Collected?		Yes	l		
C	ollectors name?		No			
Sample P	reservation_					
21. Does	the COC or field labels indicate the samples were p	reserved?	No			
	ample(s) correctly preserved?		NA			
24. Is lab	filteration required and/or requested for dissolved n	netals?	No			
<u>Multipha</u>	se Sample Matrix					
26. Does	the sample have more than one phase, i.e., multipha	se?	No			
27. If yes,	does the COC specify which phase(s) is to be analy	yzed?	NA			
Subcontr	act Laboratory					
	amples required to get sent to a subcontract laborato	ry?	No			
	subcontract laboratory specified by the client and is	•		bcontract Lab	o: NA	
	struction					
	<del></del>					
						0

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



Picture facing NE Showing excavated SP12, SP11, and SP1  $\,$ 



SP 12 and SP 10 Greater then 1 ft removed



SP 11 Greater then 2 ft excavated



SP 6 Greater then 2 ft excavated



Facing SW SP 6 and SP 7 Excavated



Sp 7 Greater the 3 ft excavated



More excavations greater then 1 ft. SP 5, Sp4



Facing SW finished Excavations



Picture was facing North East after clean fill dirt was used



South West of Sample area SP7 and SP6 with clean fill dirt.



SP8 and SP 9 Re Vegetation



NE Facing of SP 11 and SP 12 after re seeding and start of growth.



SP6 Facing NE showing regrowth and vegetation

Mack Energy excavated the spill area as depicted on the following site diagram. The area near SP1 – SP5, SP8 – SP10, SP12, and SP13 (yellow shade on diagram) were excavated beyond a depth of 1 foot. The area near SP6 and SP11 (purple shade on diagram) were excavated to a depth beyond 2 feet. The area near SP7 (blue shade on diagram) was excavated to a depth deeper then 3 feet. The entire site was then be backfilled with clean soil and revegetated. All excavated materials were disposed of at an NMOCD-approved disposal facility.

 From:
 Natalie Gladden

 To:
 Wells, Shelly, EMNRD

 Cc:
 Bratcher, Michael, EMNRD

Subject: RE: [EXTERNAL] RE: NAB1729158101 KLONDIKE STATE COM #001H Questions

**Date:** Friday, August 15, 2025 2:44:04 PM

Attachments: <u>image001.png</u>

If it fails that are is excavated down to the depth and exact GPS placement then it is excavated further until samples are clean, then the 200 sq. ft. composite is resampled and confirmed by lab confirmation before the area is backfilled. Composite 14 is the only one that came back elevated at 4', then it was excavated to 6', resampled and confirmed it was under the required levels for this site, you will see this one labelled Comp14A.

## Natalie Gladden

COO and Director of Environmental and Regulatory Services

Energy Staffing Services, LLC and Cart Hill Energy, LLC

2724 NW County Road Hobbs, NM 88240 Cell: 575-390-6397

Office: 575-393-9048

Email: <u>natalie@energystaffingllc.com</u>



From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>

**Sent:** Friday, August 15, 2025 1:59 PM

**To:** Natalie Gladden <natalie@energystaffingllc.com>

**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

Subject: RE: [EXTERNAL] RE: NAB1729158101 KLONDIKE STATE COM #001H Questions

Hi Natalie,

And then what happens if they fail the field titration?

Shelly

**From:** Natalie Gladden < <u>natalie@energystaffingllc.com</u>>

Sent: Friday, August 15, 2025 1:56 PM

**To:** Wells, Shelly, EMNRD < Shelly. Wells@emnrd.nm.gov>

**Cc:** Bratcher, Michael, EMNRD < mike.bratcher@emnrd.nm.gov>

Subject: RE: [EXTERNAL] RE: NAB1729158101 KLONDIKE STATE COM #001H Questions

Here is our procedure. Each composite is measured and painted for correct sq. ft., then these

were core hand augered as 5-point composites as indicated in the report to the respective depths. Each sample of the 5pt sample is field titrated (methods also in report), if all five pass the closure criteria of the site then the samples are then mixed to obtain the final composite. Field titrated, if passes it is jarred and sent to the lab for confirmation. Is this the information you are looking for?

## Natalie Gladden

COO and Director of Environmental and Regulatory Services Energy Staffing Services, LLC and Cart Hill Energy, LLC

2724 NW County Road Hobbs, NM 88240 Cell: 575-390-6397

Office: 575-393-9048

Email: <u>natalie@energystaffingllc.com</u>



From: Wells, Shelly, EMNRD < Shelly. Wells@emnrd.nm.gov>

**Sent:** Friday, August 15, 2025 1:11 PM

**To:** Natalie Gladden < <u>natalie@energystaffingllc.com</u>>

**Cc:** Bratcher, Michael, EMNRD < mike.bratcher@emnrd.nm.gov>

**Subject:** RE: [EXTERNAL] RE: NAB1729158101 KLONDIKE STATE COM #001H Questions

Hi Natalie,

Thank you for providing expedient responses to my questions. The backfill composite sample requirement is satisfied. However, the answer is still not clear as to how the 5 aliquots of soil were collected to make up your composite confirmation samples. So did you hand auger down to 4' in 5 different places in a 200 square foot area to collect composite samples?

Sincerely,

Shelly

Shelly Wells \* Environmental Specialist-Advanced Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520 Shelly.Wells@emnrd.nm.gov

#### http://www.emnrd.state.nm.us/OCD/

**From:** Natalie Gladden < <u>natalie@energystaffingllc.com</u>>

**Sent:** Friday, August 15, 2025 12:47 PM

**To:** Wells, Shelly, EMNRD < Shelly. Wells@emnrd.nm.gov>

**Cc:** Bratcher, Michael, EMNRD < mike.bratcher@emnrd.nm.gov>

Subject: [EXTERNAL] RE: NAB1729158101 KLONDIKE STATE COM #001H Questions

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

Thank you for reaching out. Please find my answers below in red. Let me know if you have further questions regarding my responses.

## Natalie Gladden

COO and Director of Environmental and Regulatory Services Energy Staffing Services, LLC and Cart Hill Energy, LLC

2724 NW County Road Hobbs, NM 88240 Cell: 575-390-6397 Office: 575-393-9048

Email: <u>natalie@energystaffingllc.com</u>



From: Wells, Shelly, EMNRD < Shelly. Wells@emnrd.nm.gov>

Sent: Friday, August 15, 2025 10:47 AM

**To:** Natalie Gladden < <u>natalie@energystaffingllc.com</u>>

**Cc:** Bratcher, Michael, EMNRD < mike.bratcher@emnrd.nm.gov> **Subject:** NAB1729158101 KLONDIKE STATE COM #001H Questions

Hi Natalie.

I am reviewing the submitted remediation closure/reclamation report for the NAB1729158101 KLONDIKE STATE COM #001H and have a few questions for you. There are two previous reasons of rejection that have not been addressed, and I am requesting further clarification from you regarding these:

1) As the excavation had already been backfilled prior to ESS' confirmation sampling,

explain how the five-point confirmation samples were collected from each of the areas shown on your Confirmation Sample Map. Did you drill one borehole and collect samples at different depths down to 4', combining them to form the composite sample or were the five points collected in a different manner than this? Explain. Page 8 second paragraph its states: Please note that all composites collected by ESS were obtained using a cored hand auger to reach the specified depths of 4' and 6', as previously discussed with Mike Bratcher in 2024. ESS was not responsible for the excavation activities and was only brought in to collect missed composite samples originally required by BBC.

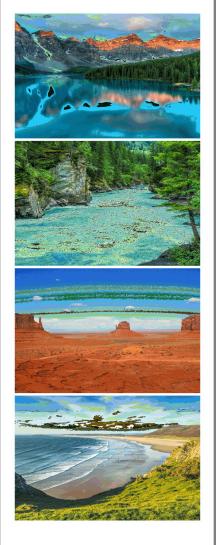
2) On pg. 9 of the submitted report it says: "Additionally, ESS obtained a 5-point composite sample of the backfill material used by BBC at the site." Do you have these results as I do not see them within the report. This part is required in order to be approved for reclamation. I did miss adding this to the attachment. Somehow I missed uploading this to the final report. I have them both attached here. I look forward to hearing back from you,

Shelly

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

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: KLONDIKE BACK FILL COMP

Work Order: E506240

Job Number: 20046-0001

Received: 6/27/2025

Revision: 1

Report Reviewed By:

Walter Hinchman Laboratory Director 6/27/25

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.

Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.

Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.

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

Date Reported: 6/27/25

Natalie Gladden 7 W. Compress Road Artesia, NM 88210

Project Name: KLONDIKE BACK FILL COMP

Workorder: E506240

Date Received: 6/27/2025 7:00:00AM

Natalie Gladden,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/27/2025 7:00:00AM, under the Project Name: KLONDIKE BACK FILL COMP.

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

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

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

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

Respectfully,

Walter Hinchman

Laboratory Director Office: 505-632-1881 Cell: 775-287-1762

whinchman@envirotech-inc.com

Raina Schwanz

**Laboratory Administrator** Office: 505-632-1881

rainaschwanz@envirotech-inc.com

Field Offices:

**Southern New Mexico Area** 

Lynn Jarboe

Laboratory Technical Representative Office: 505-421-LABS(5227)

Cell: 505-320-4759

ljarboe@envirotech-inc.com

Michelle Gonzales

Client Representative

Office: 505-421-LABS(5227)

Cell: 505-947-8222

mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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## **Sample Summary**

Mack Energy	Proiect Name:	KLONDIKE BACK FILL COMP	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/27/25 16:44

Client Sample ID	Lab Sample ID Matrix	Sampled	Received	Container	
BACKFILL COMP-SURF	E506240-01A Soil	06/23/25	06/27/25	Glass Jar, 2 oz.	



# **Sample Data**

Mack Energy	Project Name:	KLONDIKE BACK FILL COMP	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2025 4:44:30PM

#### **BACKFILL COMP-SURF**

#### E506240-01

	Reporting				
Result	Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Anal	yst: SL		Batch: 2526137
ND	0.0250	1	06/27/25	06/27/25	
ND	0.0250	1	06/27/25	06/27/25	
ND	0.0250	1	06/27/25	06/27/25	
ND	0.0250	1	06/27/25	06/27/25	
ND	0.0500	1	06/27/25	06/27/25	
ND	0.0250	1	06/27/25	06/27/25	
	84.2 %	70-130	06/27/25	06/27/25	
mg/kg	mg/kg	Anal	yst: SL		Batch: 2526137
ND	20.0	1	06/27/25	06/27/25	
	94.5 %	70-130	06/27/25	06/27/25	
mg/kg	mg/kg	Anal	yst: NV		Batch: 2526134
ND	25.0	1	06/27/25	06/27/25	
ND	50.0	1	06/27/25	06/27/25	
	120 %	61-141	06/27/25	06/27/25	
mg/kg	mg/kg	Anal	yst: IY		Batch: 2526141
ND	20.0	1	06/27/25	06/27/25	
	mg/kg ND Mg/kg ND mg/kg	Result         Limit           mg/kg         mg/kg           ND         0.0250           ND         0.0250           ND         0.0250           ND         0.0500           ND         0.0250           MD         0.0250           84.2 %         mg/kg           mg/kg         mg/kg           ND         20.0           94.5 %         mg/kg           ND         25.0           ND         50.0           120 %         mg/kg           mg/kg         mg/kg	mg/kg         mg/kg         Anal           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0250         1           ND         0.0500         1           ND         0.0250         1           84.2 %         70-130           mg/kg         mg/kg         Anal           ND         20.0         1           94.5 %         70-130         1           mg/kg         mg/kg         Anal           ND         25.0         1           ND         50.0         1           120 %         61-141           mg/kg         mg/kg         Anal	Result         Limit         Dilution         Prepared           mg/kg         mg/kg         Analyst: SL           ND         0.0250         1         06/27/25           ND         0.0250         1         06/27/25           ND         0.0250         1         06/27/25           ND         0.0250         1         06/27/25           ND         0.0500         1         06/27/25           ND         0.0250         1         06/27/25           mg/kg         mg/kg         Analyst: SL           mg/kg         mg/kg         Analyst: SL           ND         20.0         1         06/27/25           mg/kg         mg/kg         Analyst: NV           ND         25.0         1         06/27/25           ND         50.0         1         06/27/25           ND         50.0         1         06/27/25           nD         50.0         1         06/27/25           mg/kg         61-141         06/27/25           mg/kg         mg/kg         Analyst: IY	Result         Limit         Dilution         Prepared         Analyzed           mg/kg         mg/kg         Analyst: SL           ND         0.0250         1         06/27/25         06/27/25           ND         0.0250         1         06/27/25         06/27/25           ND         0.0250         1         06/27/25         06/27/25           ND         0.0500         1         06/27/25         06/27/25           ND         0.0250         1         06/27/25         06/27/25           ND         0.0250         1         06/27/25         06/27/25           84.2 %         70-130         06/27/25         06/27/25           mg/kg         mg/kg         Analyst: SL           ND         20.0         1         06/27/25         06/27/25           mg/kg         mg/kg         Analyst: NV           ND         25.0         1         06/27/25         06/27/25           ND         25.0         1         06/27/25         06/27/25           ND         50.0         1         06/27/25         06/27/25           ND         50.0         1         06/27/25         06/27/25           ND



## **QC Summary Data**

KLONDIKE BACK FILL COMP Mack Energy Project Name: Reported: 7 W. Compress Road Project Number: 20046-0001 Artesia NM, 88210 Project Manager: Natalie Gladden 6/27/2025 4:44:30PM **Volatile Organics by EPA 8021B** Analyst: SL Reporting Spike Source Rec RPD Analyte Result Limit Level Result Rec Limits RPD Limit mg/kg mg/kg mg/kg mg/kg % % % % Notes Blank (2526137-BLK1) Prepared: 06/27/25 Analyzed: 06/27/25 ND 0.0250 ND Ethylbenzene 0.0250 Toluene ND 0.0250 ND o-Xylene 0.0250 ND p,m-Xylene 0.0500 Total Xylenes ND 0.0250 Surrogate: 4-Bromochlorobenzene-PID 6.54 8.00 81.7 70-130 LCS (2526137-BS1) Prepared: 06/27/25 Analyzed: 06/27/25 5.78 116 70-130 5.00 Benzene 0.0250 Ethylbenzene 5.70 0.0250 5.00 114 70-130 5.77 0.0250 5.00 115 70-130 Toluene 112 o-Xylene 5.60 0.0250 5.00 70-130 11.5 10.0 115 70-130 0.0500 p.m-Xvlene 114 70-130 17.1 15.0 Total Xylenes 0.0250 8.00 82.1 70-130 Surrogate: 4-Bromochlorobenzene-PID 6.57 Matrix Spike (2526137-MS1) Source: E506242-01 Prepared: 06/27/25 Analyzed: 06/27/25 5.11 0.0250 5.00 ND 70-130 Benzene ND 70-130 Ethylbenzene 5.02 0.0250 5.00 100 Toluene 5.09 0.0250 5.00 ND 102 70-130 4.97 ND 99.4 70-130 5.00 0.0250 o-Xylene p,m-Xylene 10.1 0.0500 10.0 ND 101 70-130 0.0250 15.0 ND 70-130 Total Xylenes 70-130 Surrogate: 4-Bromochlorobenzene-PID 6.56 8.00 Matrix Spike Dup (2526137-MSD1) Source: E506242-01 Prepared: 06/27/25 Analyzed: 06/27/25 5.66 0.0250 5.00 ND 113 70-130 10.2 27 5.55 ND 70-130 0.0250 5.00 111 10.1 26 Ethylbenzene Toluene 5.63 0.0250 5.00 ND 113 70-130 10.1 20 5.45 5.00 ND 109 70-130 9.25 25 o-Xylene 0.0250

10.0

15.0

8.00

0.0500

0.0250

112

111

81.4

70-130

70-130

70-130

9.83

9.64

ND

ND



23

26

p,m-Xylene

Total Xylenes

Surrogate: 4-Bromochlorobenzene-PID

11.2

16.6

6.51

Gasoline Range Organics (C6-C10)

Surrogate: 1-Chloro-4-fluorobenzene-FID

## **QC Summary Data**

Mack EnergyProject Name:KLONDIKE BACK FILL COMPReported:7 W. Compress RoadProject Number:20046-0001Artesia NM, 88210Project Manager:Natalie Gladden6/27/20254:44:30PM

	Non	halogenated	Organics l	oy EPA 801	15D - GI	RO			Analyst: SL
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec	Rec Limits	RPD %	RPD Limit %	Notes
Blank (2526137-BLK1)							Prepared: 0	6/27/25 Ana	lyzed: 06/27/25
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		8.00		94.5	70-130			
LCS (2526137-BS2)							Prepared: 0	6/27/25 Ana	lyzed: 06/27/25
Gasoline Range Organics (C6-C10)	45.2	20.0	50.0		90.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.63		8.00		95.4	70-130			
Matrix Spike (2526137-MS2)				Source:	E506242-0	01	Prepared: 0	6/27/25 Ana	lyzed: 06/27/25
Gasoline Range Organics (C6-C10)	44.8	20.0	50.0	ND	89.7	70-130			
Gusonne Runge Organies (Co C10)									

50.0

8.00

20.0

7.63

ND

95.3

70-130

70-130

3.58

## **QC Summary Data**

Mack Energy	Project Name:	KLONDIKE BACK FILL COMP	Reported:
7 W. Compress Road	Project Number:	20046-0001	•
Artesia NM, 88210	Project Manager:	Natalie Gladden	6/27/2025 4:44:30PM

Artesia NM, 88210		Project Manage	r: N	atalie Gladden					6/27/2025 4:44:30PM
	Nonha	logenated Or	ganics by	EPA 8015D	- DRO	/ORO			Analyst: NV
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2526134-BLK1)							Prepared: 0	6/27/25 A	nalyzed: 06/27/25
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.5		50.0		107	61-141			
LCS (2526134-BS1)							Prepared: 0	6/27/25 A	nalyzed: 06/27/25
Diesel Range Organics (C10-C28)	396	25.0	250		158	66-144			L5
Surrogate: n-Nonane	67.1		50.0		134	61-141			
Matrix Spike (2526134-MS1)				Source: 1	E506240-	01	Prepared: 0	6/27/25 A	nalyzed: 06/27/25
Diesel Range Organics (C10-C28)	331	25.0	250	ND	132	56-156			
Surrogate: n-Nonane	56.6		50.0		113	61-141			
Matrix Spike Dup (2526134-MSD1)				Source: 1	E506240-0	01	Prepared: 0	6/27/25 A	nalyzed: 06/27/25
Diesel Range Organics (C10-C28)	332	25.0	250	ND	133	56-156	0.345	20	
Surrogate: n-Nonane	56.3		50.0		113	61-141			



## **QC Summary Data**

Mack Energy 7 W. Compress Road		Project Name: Project Number:		LONDIKE BA 0046-0001	ACK FILL	COMP			Reported:
Artesia NM, 88210		Project Manager:		atalie Gladder	1				6/27/2025 4:44:30PM
		Anions	by EPA	300.0/9056	1				Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2526141-BLK1)							Prepared: 0	6/27/25 A	Analyzed: 06/27/25
Chloride	ND	20.0							
LCS (2526141-BS1)							Prepared: 0	6/27/25 A	Analyzed: 06/27/25
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2526141-MS1)				Source:	E506240-0	1	Prepared: 0	6/27/25 A	Analyzed: 06/27/25
Chloride	254	20.0	250	ND	101	80-120			
Matrix Spike Dup (2526141-MSD1)				Source:	E506240-0	1	Prepared: 0	6/27/25 A	Analyzed: 06/27/25
Chloride	254	20.0	250	ND	102	80-120	0.222	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:	KLONDIKE BACK FILL COMP	
7 W. Compress Road	Project Number:	20046-0001	Reported:
Artesia NM, 88210	Project Manager:	Natalie Gladden	06/27/25 16:44

L5 The LCS spike recovery was outside acceptance limits. The MS and/or MSD is within the LCS acceptance limits.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

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

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



Project Information

Chain of Custody

Page \_\_\_\_\_\_of/\_\_\_

Client:	MACK	ENK	LEY	T	Bill To		T		La	ab Us	se On	ly				TA	T	EPA P	rogram
Project:	KLONSI	K BA	CK FILL	- conp	Attention: ENERGY STAFFINGS	SERVICES	Lab	WO#	t		Job I	Numbe		1D	2D	3D	Standard	CWA	SDWA
Project N	/lanager:				Address: 2724 NW COUNTY RD	)	E	solo.	240	)	200	46.0	201		X				
Address:					City, State, Zip HOBBS, NM 88	8240					Analy	sis and	Method	1	/				RCRA
City, Stat	e, Zip				Phone: 575-393-9048														
Phone:					Email: NATALIE@ENERGYSTAFFI	NGLLC.COM	8015	8015										State	
Email:					PRITTNEY DENERGYSTAFF	INGLECCOM	by 8(	) × 80	8021	00	0	0.00		NN			NM CO	UT AZ	TX
Report d	ue by:							RO E	y 80	y 826	109	Je 3(		The same	X				
Time Sampled	Date Sampled	Matrix	No of Containers	Sample ID		Lab Number	DRO/ORO	GRO/DRO by	втех by	VOC by 8260	Metals 6010	Chloride 300		верос	верос			Remarks	
2730	6/23/25	- 5	/	BACKE	ul comp-54RF	l								X			3.0	***************************************	
										<u> </u>	<u> </u>				<b>†</b>				
							-	+	+-	+				+	-				
				<u> </u>			+-	-	-	-			-		-				
							-	-		-	-			-	-	-			
						A													
Addition	nal Instruc	tions:	J														***************************************		
15.00				ticity of this sample.	I am aware that tampering with or intentionally mi	islabelling the samp	le loca	tion,	***************************************		Samp	les requiri ed in ice at	ng thermal an avg tem	presen p abov	ation m	nust be re less than	ceived on ice the da 6 °C on subsequent of	they are sam lays.	pled or received
	red by: \Sign		Date	Time			0	Time	2 -	_						Jse Or	nly		
10	110/		. 6	123/25	Received By: (Signature)	408 625	77		315		Rec	eived	on ice:	(		N			
Relinquish	ed by (Sign	Gorgo	res Date	1625 Time	Received by: (Signature)	Date C.7	6.2	5 Time	1C	20	T1			<u>T2</u>			<u>T3</u>		
Relinquist	ned by: (Sign	ature)	Date	1(20	Received by: (Signature)	_ /O.27	1.25	Time	70i	)	1	G Tem							
T	. 000	d Coll.d 6-	Studen A	Aqueous, O - Other_	C SOME COMPANY	Contain	er Tvr	ne: e	glass	. p -				oer gl	ass, v	- VOA			
Note: San	unx: 3 - 5011, 5	carded 20	days after	ecults are reported	unless other arrangements are made. Haza	irdous samples wi	ill be r	eturne	ed to c	lient	or disp	osed of	at the cli	ent e	pense	e. The	report for the a	nalysis of th	e above
camples i	canolicable	only to the	se samples	received by the lat	poratory with this COC. The liability of the lab	oratory is limited	to the	amou	unt pai	id for	on the	report.							



Printed: 6/27/2025 10:57:57AM

## **Envirotech Analytical Laboratory**

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

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

Client:	Mack Energy	Date Received:	06/27/25 0	7:00	,	Work Order ID:	E506240
Phone:	(575) 390-6397	Date Logged In:	06/26/25 13	3:17		Logged In By:	Caitlin Mars
Email:	Natalie@energystaffingllc.com	Due Date:	06/27/25 1	7:00 (0 day TAT)			
Chain of	Custody (COC)						
	e sample ID match the COC?		Yes				
	e number of samples per sampling site location man	ch the COC	Yes				
	mples dropped off by client or carrier?		Yes	Carrier:	<u>Courier</u>		
	COC complete, i.e., signatures, dates/times, reques	sted analyses?	No				
5. Were al	I samples received within holding time? Note: Analysis, such as pH which should be conducted in i.e, 15 minute hold time, are not included in this disucssion		Yes			Comments	/Resolution
Sample To	urn Around Time (TAT)						11.1 000
6. Did the	COC indicate standard TAT, or Expedited TAT?		Yes		Project man	ager not pro	vided on COC.
Sample C	<u>ooler</u>						
7. Was a s	ample cooler received?		Yes				
8. If yes, v	vas 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				
	sample received on ice?  Note: Thermal preservation is not required, if samples are 15 minutes of sampling		Yes				
	OC for individual sample temps. Samples outside o	t 0°C-6°C will be	recorded in	n comments.			
Sample C							
-	ueous VOC samples present?		No				
	OC samples collected in VOA Vials?		NA				
	nead space less than 6-8 mm (pea sized or less)?		NA				
	trip blank (TB) included for VOC analyses?		NA				
	on-VOC samples collected in the correct containers		Yes				
	ppropriate volume/weight or number of sample contain	ers collected?	Yes				
Field Lab							
	ield sample labels filled out with the minimum info	rmation:	V				
	mple ID? ate/Time Collected?		Yes				
	ollectors name?		Yes No				
Sample P	reservation		110				
21. Does t	he COC or field labels indicate the samples were pr	eserved?	No				
22. Are sa	mple(s) correctly preserved?		NA				
	filtration required and/or requested for dissolved mo	etals?	No				
Multiphas	se Sample Matrix						
	he sample have more than one phase, i.e., multipha	se?	No				
	does the COC specify which phase(s) is to be analy		NA				
			1121				
-	act Laboratory		No				
	mples required to get sent to a subcontract laborato	-	No NA	G 1	1 374		
29. was a	subcontract laboratory specified by the client and it	SO WHO?	NA	Subcontract La	ab: NA		
Client In	<u>struction</u>						

Date

Sante Fe Main Office Phone: (505) 476-3441 General Information Phone: (505) 629-6116

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

QUESTIONS

Action 489818

## **QUESTIONS**

Operator:	OGRID:
MACK ENERGY CORP	13837
P.O. Box 960	Action Number:
Artesia, NM 882110960	489818
	Action Type:
	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

## QUESTIONS

Prerequisites					
Incident ID (n#)	nAB1729158101				
Incident Name	NAB1729158101 KLONDIKE STATE COM #001H @ 30-005-64295				
Incident Type	Produced Water Release				
Incident Status	Reclamation Report Received				
Incident Well	[30-005-64295] KLONDIKE STATE COM #001H				

ocation of Release Source					
Please answer all the questions in this group.					
Site Name KLONDIKE STATE COM #001H					
Date Release Discovered	10/15/2017				
Surface Owner	State				

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

Nature and Volume of Release						
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.						
Crude Oil Released (bbls) Details	Not answered.					
Produced Water Released (bbls) Details	Cause: Equipment Failure   Other (Specify)   Produced Water   Released: 200 BBL   Recovered: 0 BBL   Lost: 200 BBL.					
Is the concentration of chloride in the produced water >10,000 mg/l	Yes					
Condensate Released (bbls) Details	Not answered.					
Natural Gas Vented (Mcf) Details	Not answered.					
Natural Gas Flared (Mcf) Details	Not answered.					
Other Released Details	Not answered.					
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.					

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

QUESTIONS, Page 2

Action 489818

QUESTI	IONS (continued)
Operator:  MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837 Action Number: 489818
	Action Type:  [C-141] Reclamation Report C-141 (C-141-v-Reclamation)
QUESTIONS	
Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (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 s	safety hazard that would result in injury.
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.
	idation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of evaluation in the follow-up C-141 submission.
to report and/or file certain release notifications and perform corrective actions for releate OCD does not relieve the operator of liability should their operations have failed to	knowledge and understand that pursuant to OCD rules and regulations all operators are required ases which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or
I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com Date: 07/29/2025

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Phone: (505) 629-6116

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

QUESTIONS, Page 3

Action 489818

**QUESTIONS** (continued)

Operator:	OGRID:
MACK ENERGY CORP	13837
P.O. Box 960	Action Number:
Artesia, NM 882110960	489818
	Action Type:
	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

## QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approva release discovery date.	l and beyond). This information must be provided to the appropriate district office no later than 90 days after the
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release ar	nd the following surface areas:
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (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	Between 1000 (ft.) and ½ (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	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
Requesting a remediation plan approval with this submission	Yes	
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination	associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes	
Was this release entirely contained within a lined containment area	No	
Soil Contamination Sampling: (Provide the highest observable value for each, in mil	ligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	12500	
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0	
GRO+DRO (EPA SW-846 Method 8015M)	0	
BTEX (EPA SW-846 Method 8021B or 8260B)	0	
Benzene (EPA SW-846 Method 8021B or 8260B)	0	
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.		
On what estimated date will the remediation commence	12/11/2017	
On what date will (or did) the final sampling or liner inspection occur	06/23/2025	
On what date will (or was) the remediation complete(d)	06/01/2018	
What is the estimated surface area (in square feet) that will be reclaimed	16800	
What is the estimated volume (in cubic yards) that will be reclaimed	16800	
What is the estimated surface area (in square feet) that will be remediated	16800	
What is the estimated volume (in cubic yards) that will be remediated	1220	
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.		

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to

significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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

QUESTIONS, Page 4

Action 489818

QUESTIONS (continued)

Operator:	OGRID:
MACK ENERGY CORP	13837
P.O. Box 960	Action Number:
Artesia, NM 882110960	489818
	Action Type:
	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

### QUESTIONS

appropriate district office no later than 90 days after the release discovery date.	
/ reduce contaminants:	
(Select all answers below that apply.)	
Yes	
GANDY MARLEY LANDFARM/LANDFILL [fEEM0112338393]	
Not answered.	

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

Name: Natalie Gladden
Title: Environmental

Email: natalie@energystaffingllc.com

Date: 07/29/2025

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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

QUESTIONS, Page 5

Action 489818

QUESTIONS (continued)

Operator:	OGRID:
MACK ENERGY CORP	13837
P.O. Box 960	Action Number:
Artesia, NM 882110960	489818
	Action Type:
	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

## QUESTIONS

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

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Phone: (505) 629-6116
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## State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 6

Action 489818

QUESTIONS (continued)

Operator:	OGRID:
MACK ENERGY CORP	13837
P.O. Box 960	Action Number:
Artesia, NM 882110960	489818
	Action Type:
	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

### QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	398982
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/06/2024
What was the (estimated) number of samples that were to be gathered	101
What was the sampling surface area in square feet	16800

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	16800
What was the total volume (cubic yards) remediated	1220
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	16800
What was the total volume (in cubic yards) reclaimed	1586
Summarize any additional remediation activities not included by answers (above)	Please not ESS did not delineate, remediate, reclaim the site. BBC and Bulls Eye Construction completed that scope of work. ESS only was brought into take composites for the final closure as BBC did not complete that task.

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.

Name: Natalie Gladden
Title: Environmental
Email: natalie@energystaffingllc.com
Date: 07/29/2025

General Information Phone: (505) 629-6116

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

QUESTIONS, Page 7

Action 489818

**QUESTIONS** (continued)

Operator.	OGNID.
MACK ENERGY CORP	13837
P.O. Box 960	Action Number:
Artesia, NM 882110960	489818
	Action Type:
	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)
QUESTIONS	
Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	16800
What was the total volume of replacement material (in cubic yards) for this site	1586
	of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	07/01/2018
Summarize any additional reclamation activities not included by answers (above)	Reclamation completed by Bullseye.
	reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form the field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13
to report and/or file certain release notifications and perform corrective actions for releatithe OCD does not relieve the operator of liability should their operations have failed to water, human health or the environment. In addition, OCD acceptance of a C-141 report	
I hereby agree and sign off to the above statement	Name: Natalie Gladden Title: Environmental Email: natalie@energystaffingllc.com

Date: 07/29/2025

General Information Phone: (505) 629-6116

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

QUESTIONS, Page 8

Action 489818

**QUESTIONS** (continued)

Operator:	OGRID:
MACK ENERGY CORP	13837
P.O. Box 960	Action Number:
Artesia, NM 882110960	489818
	Action Type:
	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

## QUESTIONS

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

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

CONDITIONS

Action 489818

## **CONDITIONS**

Operator:	OGRID:
MACK ENERGY CORP	13837
P.O. Box 960	Action Number:
Artesia, NM 882110960	489818
	Action Type:
	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

## CONDITIONS

(	Created By	Condition	Condition Date	
	scwells	None	8/18/2025	