

Remediation Summary and Soil Closure Request

Mewbourne Oil Company Aries 19 IL Federal Com #001H

Eddy County, New Mexico
Unit Letter P, Section 19, Township 18 South, Range 30 East
Latitude 32.727136 North, Longitude 104.005836 West
NMOCD Reference No. nRM2017850577

Prepared By:

Etech Environmental & Safety Solutions, Inc.
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Lovington, New Mexico 88260



Lance Crenshaw



Joel W. Lowry



Midland • San Antonio • Lubbock • Lovington • Lafayette

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1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Mewbourne Oil Company, has prepared this Remediation Summary and Soil Closure Request for the Release Site known as the Aries 19 IL Federal Com #001H. Details of the release are summarized below:

Location of Release Source				
Latitude: <u>32.727136</u>		Longitude: <u>-104.005836</u>		
Provided GPS are in WGS84 format.				
Site Name: <u>Aries 19 IL Federal Com #001H</u>		Site Type: <u>Tank Battery</u>		
Date Release Discovered: <u>6/24/2020</u>		API # (if applicable): <u>30-015-40497</u>		
Unit Letter	Section	Township	Range	County
P	19	18S	30E	Eddy
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Private (Name _____)				
Nature and Volume of Release				
<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	5	Volume Recovered (bbls)	0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	5	Volume Recovered (bbls)	0
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released		Volume/Weight Recovered	
Cause of Release: Lightning struck produced water tank				
Initial Response				
<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.				

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (bgs)?	Between 51 and 75 (ft.)
What method was used to determine the depth to groundwater?	Direct Measurement
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
What is the minimum distance between the closest lateral extents of the release and the following surface areas?	
A continuously flowing watercourse or any other significant watercourse?	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution or church?	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	Between 1 and 5 (mi.)
Any other fresh water well or spring?	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field?	Greater than 5 (mi.)
A wetland?	Between 1 and 5 (mi.)
A subsurface mine?	Between 1 and 5 (mi.)
A (non-karst) unstable area?	Between 1 and 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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater and NMOCD siting information is provided as Appendix A.

Additional NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Fish and Wildlife Services (FWS) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted in Figures 1, 2A, 2B, and 4.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standards for the Site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
Between 51 and 75 (ft.)	Chloride (Cl-)	EPA** 300.0 or SM4500 Cl B	10,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Gas Range Organics + Diesel Range Organics (GRO+DRO)	EPA SW-846 Method 8015M	1,000	N/A
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

* Measured in milligrams per kilogram (mg/kg)

** Environmental Protection Agency

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

4.0 REMEDIATION ACTIVITIES SUMMARY

On July 13, 2020, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores were advanced within the release margins in an effort to determine the vertical extent of soil impacts. In addition, hand-augered soil bores were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of soil impacts. During the advancement of the hand-augered soil bores, field soil samples were collected and field-screened for concentrations of chloride utilizing a Hach Quantab® chloride test kit.

Based on field observations and field test data, twenty-four (24) delineation soil samples (SH1 @ Surf, SH1 @ 1', NH1 @ Surf, NH1 @ 1', NH2 @ Surf, NH2 @ 1', NH3 @ Surf, NH3 @ 1', EH1 @ Surf, EH1 @ 1', EH2 @ Surf, EH2 @ 1', EH3 @ Surf, EH3 @ 1', WH1 @ Surf, WH1 @ 1', WH2 @ Surf, WH2 @ 1', SP1 @ Surf, SP1 @ 4-R, SP2 @ Surf, SP2 @ 4-R, SP3 @ Surf, and SP3 @ 4-R) were submitted to the laboratory for analysis of BTEX, TPH and/or Chloride. Based on laboratory analytical results, soil was not affected above the NMOCD Closure Criteria beyond 4' bgs and the horizontal extent of affected soil impacted above the NMOCD Closure Criteria was adequately defined.

On September 21, 2020, remediation activities commenced at the Site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and stockpiled on-site, pending transfer to an NMOCD-approved surface waste facility for disposal. The floor and sidewalls of the excavation were advanced until field observations and test results suggested BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

On September 21, 2020, Etech collected two (2) excavation confirmation soil samples (FS-1 and EW-1). The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples, with the exception of EW-1, which exhibited a TPH concentration of 107 mg/kg.

On September 22, 2020, Etech collected eight (8) excavation confirmation soil samples (FS-2 through FS-6, NW-1, NW-2, and EW-2). The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

On September 23, 2020, Etech collected ten (10) excavation confirmation soil samples (FS-7 through FS-11, NW-3 through NW-5, WW-1, and WW-2). The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples, with the exception of FS-8, which exhibited a chloride concentration of 10,000 mg/kg.

On September 25, 2020, Etech collected fifteen (15) excavation confirmation soil samples (WW-A, WW-B, WW-C, WW-D, NW-A, EW-A, EW-B, EW-C, EW-D, SW-A, FS-A @ 3', FS-B @ 3', FS-C @ 3', FS-D @ 4', and FS-E @ 2'). The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

On September 28, 2020, Etech collected five (5) excavation confirmation soil samples (PFS-1 through PFS-5). The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

On September 29, 2020, Etech collected five (5) excavation confirmation soil samples (SW-1 through SW-5). The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

On October 26, 2020, excavation activities resumed at the Site. Impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in the areas characterized by sample points EW-1 and FS-8 was excavated and transported to an NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected two (2) additional excavation confirmation soil samples (EW1B and FS8-8 @ 4') and submitted them to the laboratory for analysis of TPH and chloride, respectively. Laboratory analytical results indicated TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

Site and sample location maps are provided as Figure 3A and 3B. A soil chemistry table is provided as Table 1. Laboratory analytical reports are provided in Appendix C. Field data and soil profile logs are provided as Appendix B.

The final dimensions of the excavated area were 172' in length, 4' to 72' in width, and ranged from 6" to 4' in depth. During the course of remediation activities, approximately 700 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

5.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area was contoured and compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture free of noxious weeds during the first favorable growing season following closure of the site.

6.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with applicable NMOCD Regulations. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH and chloride are below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Mewbourne Oil Company provide copies of this Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the Aries 19 IL Federal Com #001H Site.

7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Remediation Summary and Soil Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Mewbourne Oil Company. Use of the information contained in this report is prohibited without the consent of Etech and/or Mewbourne Oil Company.

8.0 DISTRIBUTION

Mewbourne Oil Company

4801 Business Park Blvd.

Hobbs, NM 88240

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 2

811 S. First Street

Artesia, NM 88210

United States Department of the Interior

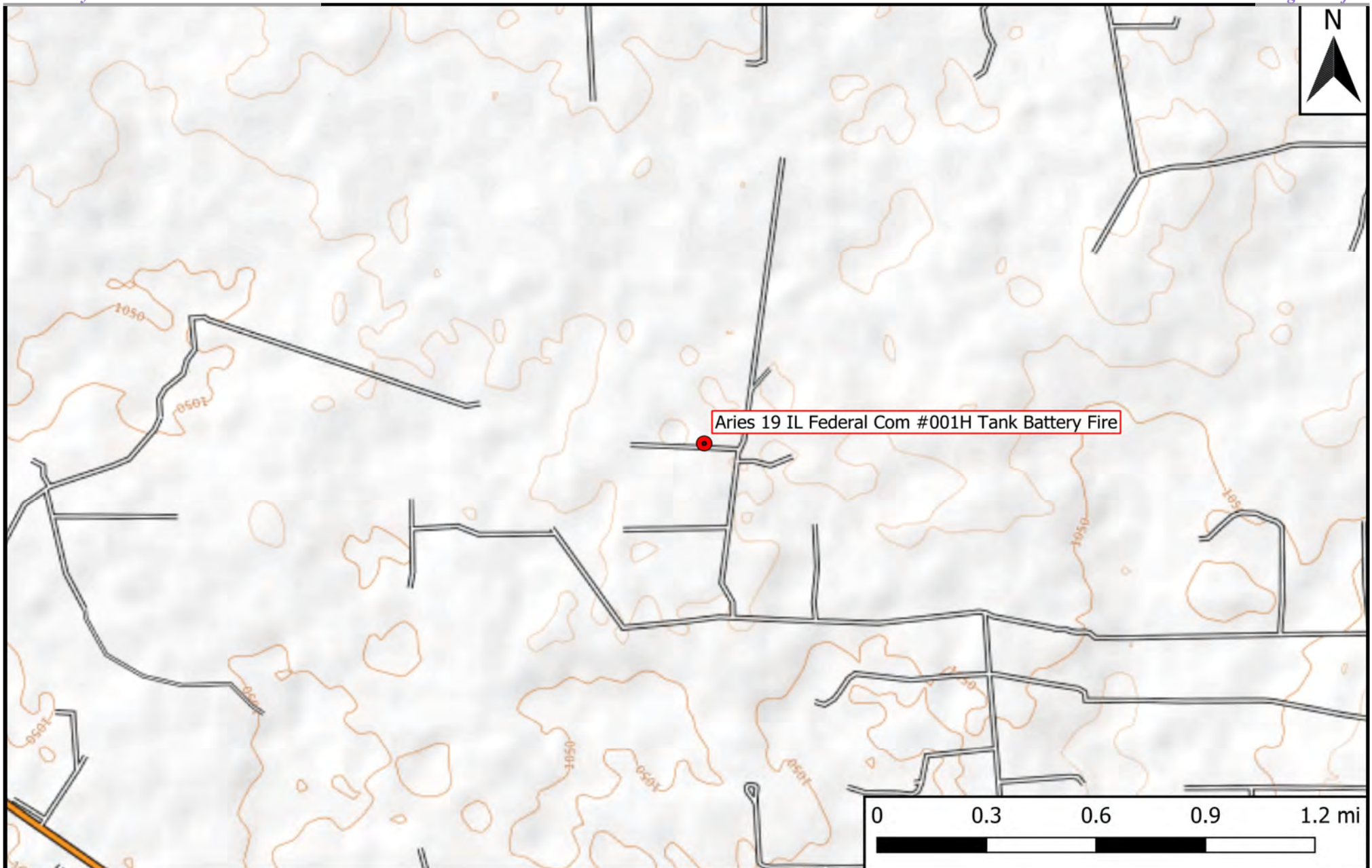
Bureau of Land Management

620 E. Greene Street

Carlsbad, NM 88220

(Electronic Submission)

Figure 1 Topographic Map



Legend
 Site Location

Figure 1
Topographic Map
Mewbourne Oil Company
Aries 19 IL Federal Com #001H
GPS: 32.727136, -104.005836
Eddy County

eTECH 
Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 7/1/20

Figure 2A
Site Characterization Map (0.5-Mile Radius)

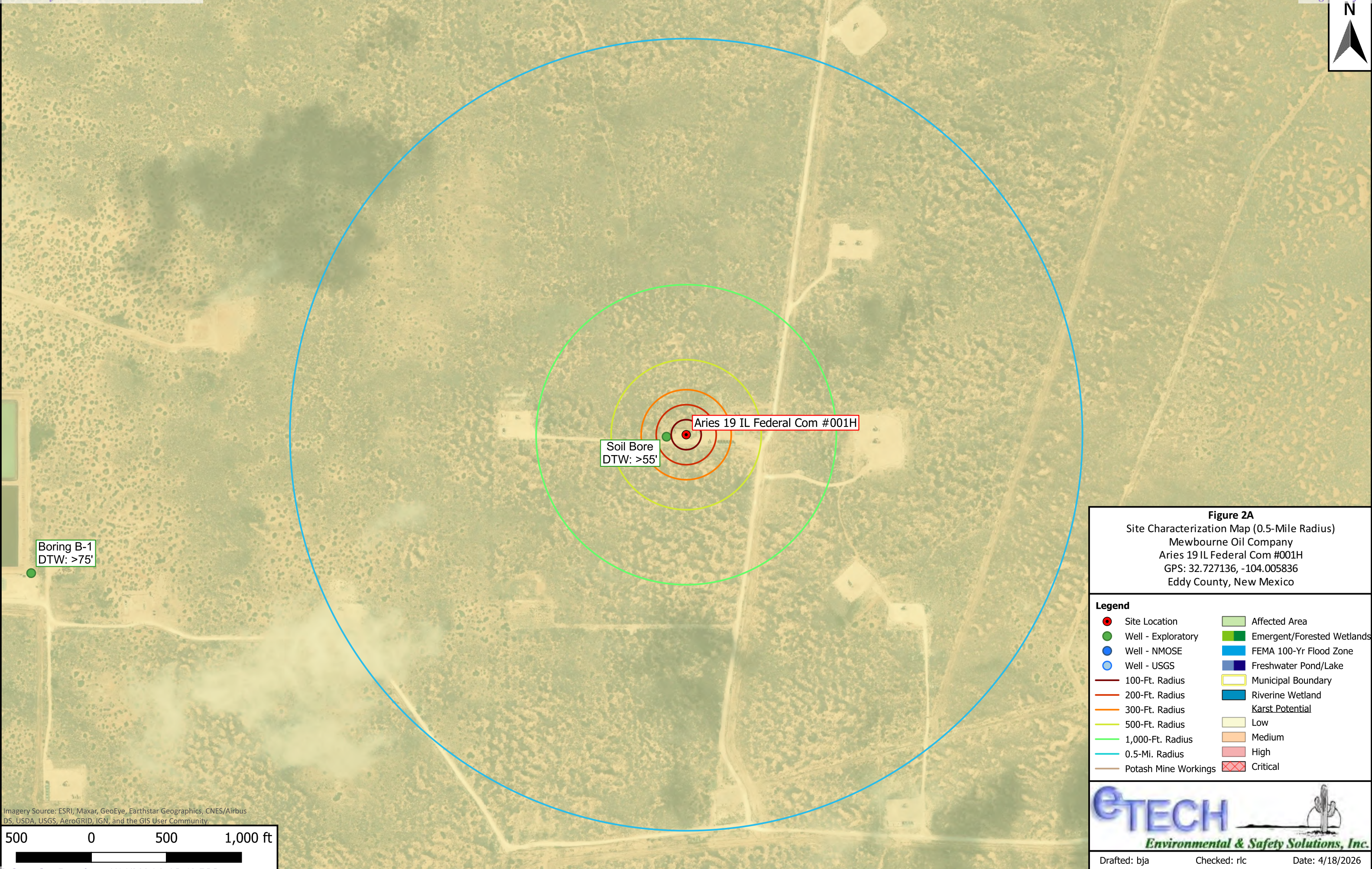
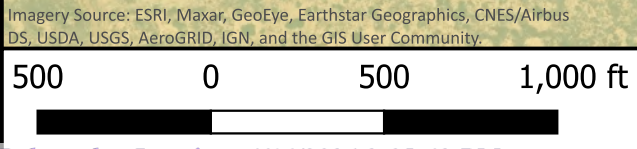


Figure 2A
 Site Characterization Map (0.5-Mile Radius)
 Mewbourne Oil Company
 Aries 19 IL Federal Com #001H
 GPS: 32.727136, -104.005836
 Eddy County, New Mexico

Legend

Site Location	Affected Area
Well - Exploratory	Emergent/Forested Wetlands
Well - NMOSE	FEMA 100-Yr Flood Zone
Well - USGS	Freshwater Pond/Lake
100-Ft. Radius	Municipal Boundary
200-Ft. Radius	Riverine Wetland
300-Ft. Radius	Karst Potential
500-Ft. Radius	Low
1,000-Ft. Radius	Medium
0.5-Mi. Radius	High
Potash Mine Workings	Critical



Drafted: bja Checked: rlc Date: 4/18/2026

Figure 2B
Site Characterization Map (5-Mile Radius)

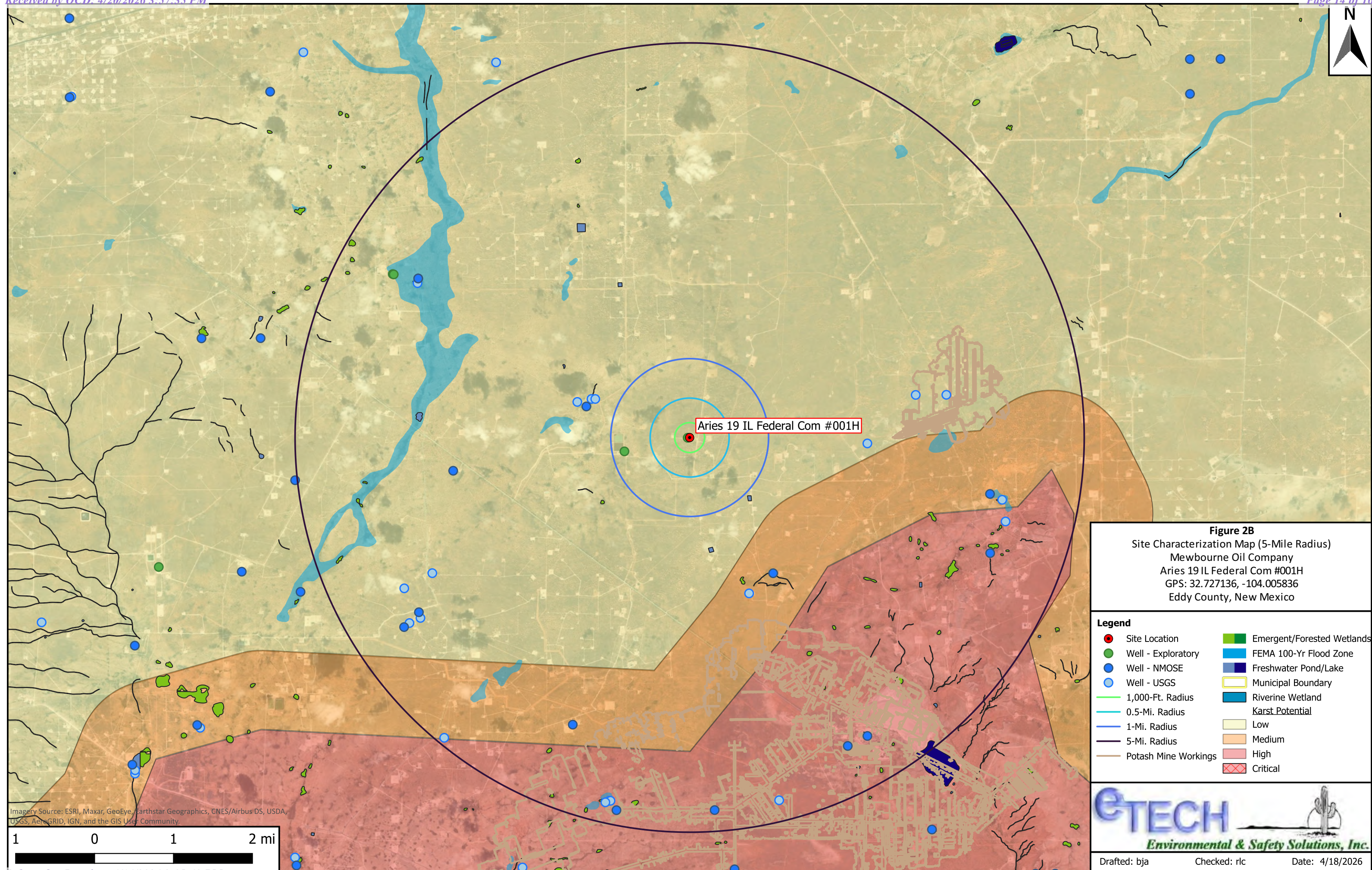


Figure 2B
 Site Characterization Map (5-Mile Radius)
 Mewbourne Oil Company
 Aries 19 IL Federal Com #001H
 GPS: 32.727136, -104.005836
 Eddy County, New Mexico

- Legend**
- Site Location
 - Well - Exploratory
 - Well - NMOSE
 - Well - USGS
 - 1,000-Ft. Radius
 - 0.5-Mi. Radius
 - 1-Mi. Radius
 - 5-Mi. Radius
 - Potash Mine Workings
 - Emergent/Forested Wetlands
 - FEMA 100-Yr Flood Zone
 - Freshwater Pond/Lake
 - Municipal Boundary
 - Riverine Wetland
 - Karst Potential Low
 - Karst Potential Medium
 - Karst Potential High
 - Karst Potential Critical

Imagery Source: ESRI, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

1 0 1 2 mi

ETECH
 Environmental & Safety Solutions, Inc.

Drafted: bja Checked: rlc Date: 4/18/2026

Figure 3A
Site and Sample Location Map - Delineation



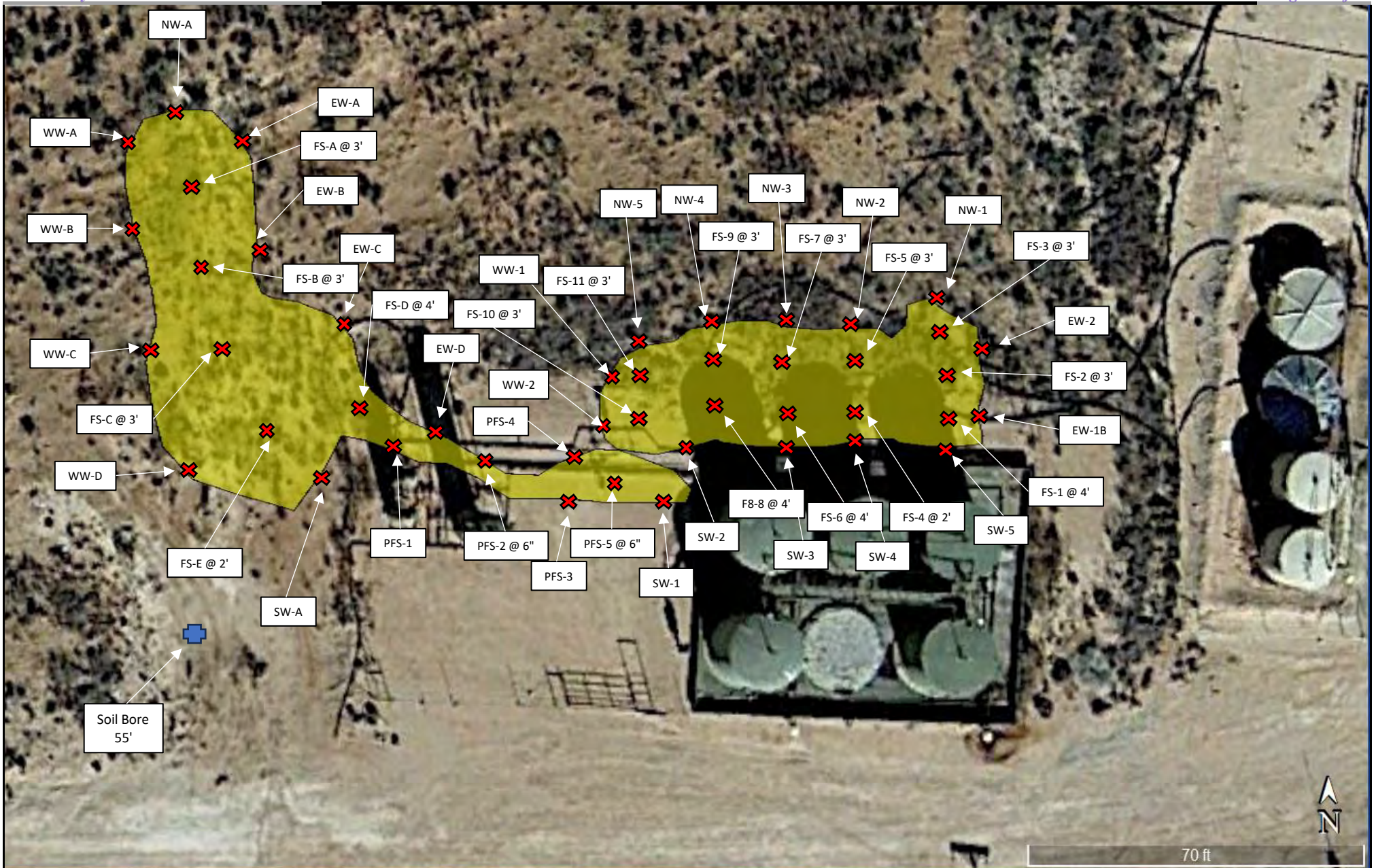
Legend:

●	Sample Point
	Affected Area

Figure 3A
 Site and Sample Location Map - Delineation
 Mewbourne Oil Company
 Aries 19 IL Federal Com #001H
 GPS: 32.727136, -104.005836
 Eddy County

 Environmental & Safety Solutions, Inc.		
Drafted: lc	Checked: jwl	Date: 11/17/20

Figure 3B
Site and Sample Location Map - Excavation



Legend:

	Sample Point
	Excavated Area
	Soil Bore

Figure 3B
 Site and Sample Location Map - Excavation
 Mewbourne Oil Company
 Aries 19 IL Federal Com #001H
 GPS: 32.727136, -104.005836
 Eddy County

 eTECH <i>Environmental & Safety Solutions, Inc.</i>	
Drafted: lc	Checked: jwl
Date: 4/8/26	

Table 1
Concentrations of BTEX, TPH, and/or Chloride in Soil

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL
Mewbourne Oil Company
Aries 19 IL Federal Com #001H
NMOCD Ref. #: nRM2017850577

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	10000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SH1 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	170
SH1 @ 1'	7/13/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	73.0
NH1 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NH1 @ 1'	7/13/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NH2 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NH2 @ 1'	7/13/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NH3 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NH3 @ 1'	7/13/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH1 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH1 @ 1'	7/13/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH2 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH2 @ 1'	7/13/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH3 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH3 @ 1'	7/13/2020	1'	In-Situ	ND	ND	ND	14.0	14.0	61.0	75.0	ND
WH1 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WH1 @1'	7/13/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WH2 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WH2 @1'	7/13/2020	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SP1 @ Surf	7/13/2020	Surf	In-Situ	ND	ND	ND	ND	ND	ND	ND	5,700
SP1 @ 4-R	7/13/2020	4-R	In-Situ	ND	ND	ND	ND	ND	ND	ND	300
SP2 @ Surf	7/13/2020	Surf	Excavated	ND	ND	ND	1,500	1,500	2,000	3,500	32,000
SP2 @ 4-R	7/13/2020	4-R	In-Situ	ND	ND	ND	ND	ND	ND	ND	9,100
SP3 @ Surf	7/13/2020	Surf	Excavated	ND	ND	ND	10.0	10.0	ND	10.0	23,000
SP3 @ 4-R	7/13/2020	4-R	In-Situ	ND	ND	ND	ND	ND	ND	ND	2,200
FS-1	9/21/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	9,400
FS-2	9/22/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-3	9/22/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-4	9/22/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-5	9/22/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-6	9/22/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	8,900
NW-1	9/22/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW-2	9/22/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW-1	9/21/2020	0-4'	Excavated	ND	ND	ND	12.0	12.0	95.0	107	ND
EW-2	9/22/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-7	9/23/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-8	9/23/2020	3'	Excavated	ND	ND	ND	ND	ND	ND	ND	10,000
FS-9	9/23/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-10	9/23/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	2,600
FS-11	9/23/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW-3	9/23/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW-4	9/23/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL
Mewbourne Oil Company
Aries 19 IL Federal Com #001H
NMOCD Ref. #: nRM2017850577

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	10000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
NW-5	9/23/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW-1	9/23/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW-2	9/23/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW-A	9/25/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW-B	9/25/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW-C	9/25/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW-D	9/25/2020	0-2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW-A	9/25/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW-A	9/25/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW-B	9/25/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW-C	9/25/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	230
EW-D	9/25/2020	0-6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW-A	9/25/2020	0-1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-A@3'	9/25/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-B@3'	9/25/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	63.0
FS-C@3'	9/25/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FS-D@4'	9/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	130
FS-E@2'	9/25/2020	2'	In-Situ	ND	ND	ND	13.0	13.0	ND	13.0	88.0
PFS-1	9/28/2020	0-6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	300
PFS-2	9/28/2020	6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	540
PFS-3	9/28/2020	0-6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
PFS-4	9/28/2020	0-6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	3,500
PFS-5	9/28/2020	6"	In-Situ	ND	ND	ND	10.0	10.0	48.0	58.0	4,400
SW-1	9/29/2020	0-6"	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW-2	9/29/2020	0-3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW-3	9/29/2020	0-4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	76.0
SW-4	9/29/2020	0-4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	74.0
SW-5	9/29/2020	0-5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	220
EW1B	10/26/2020	0-4'	In-Situ	-	-	ND	ND	ND	ND	ND	-
F8-8 @ 4'	10/26/2020	4'	In-Situ	-	-	-	-	-	-	-	3,100

NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Appendix A

Depth to Groundwater Information



Aries 19 IL Federal Com #001H Tank Battery Fire

Legend

- Site Location

Figure 4
 Inferred Depth to Groundwater Trend Map
 Mewbourne Oil Company
 Aries 19 IL Federal Com #001H Tank Battery Fire
 GPS: 32.727136, -104.005836
 Eddy County



Drafted: mag Checked: jwl Date: 7/1/20



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

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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 00582 POD1	CP	ED		64	16	4	24	18S	29E	591048	3622096*	2198	150		

Average Depth to Water: --
 Minimum Depth: --
 Maximum Depth: --

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 593157.43 **Northing (Y):** 3621474.85 **Radius:** 3220

*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.

7/1/20 1:07 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00582 POD1				24	18S	29E	591048	3622096*

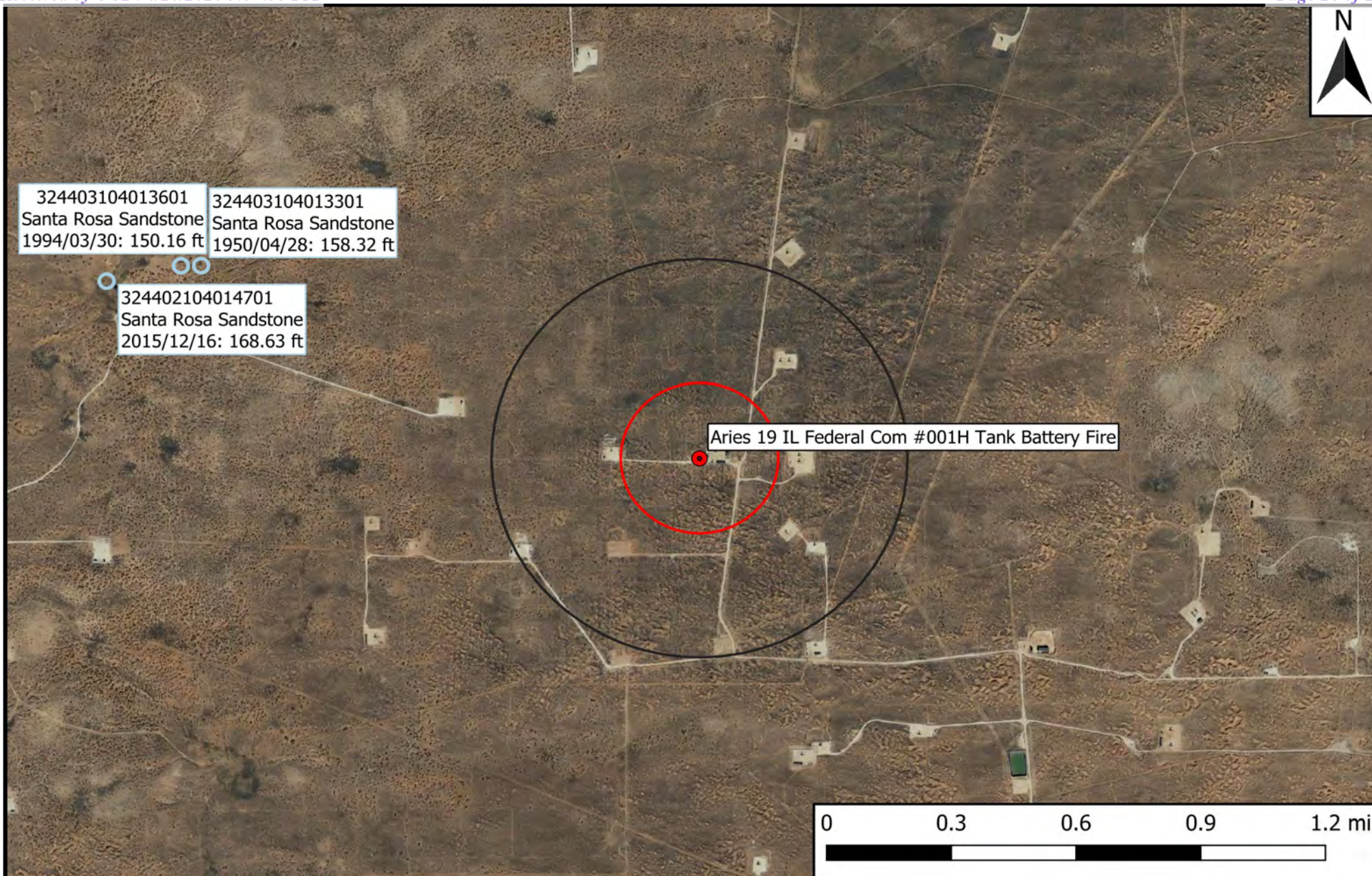
Driller License: 122	Driller Company: UNKNOWN	
Driller Name:		
Drill Start Date:	Drill Finish Date:	Plug Date:
Log File Date:	PCW Rcv Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield: 4 GPM
Casing Size: 6.00	Depth Well: 150 feet	Depth Water:

*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.

7/1/20 1:07 PM

POINT OF DIVERSION SUMMARY



Legend

- Site Location
- Well - USGS
- 0.5 Mi Radius
- 1000 Ft Radius

Figure 5
 USGS Well Proximity Map
 Mewbourne Oil Company
 Aries 19 IL Federal Com #001H
 GPS: 32.727136, -104.005836
 Eddy County



Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 7/1/20



National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

Click to hide News Bulletins

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

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
• 324402104014701

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 324402104014701 18S.29E.24.14413

Eddy County, New Mexico
Latitude 32°44'01.5", Longitude 104°01'48.9" NAD83
Land-surface elevation 3,441 feet above NAVD88
The depth of the well is 202.00 feet below land surface.
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Water-level accuracy	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status	
1994-03-30		D	159.96			2	Z	S			U	A
2015-12-16	10:30 MST	m	168.63			2		S	USGS		S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	Z	Other conditions existed that would affect the measured water level (explain in remarks).
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

- [Questions about sites/data?](#)
- [Feedback on this web site](#)
- [Automated retrievals](#)
- [Help](#)
- [Data Tips](#)
- [Explanation of terms](#)
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National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

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- [Full News](#)

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 324403104013301

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 324403104013301 18S.29E.24.23314

Eddy County, New Mexico
 Latitude 32°44'03", Longitude 104°01'33" NAD27
 Land-surface elevation 3,446 feet above NAVD88
 This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Water-level accuracy	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status	
1950-04-28		D	158.32			2	P	U			U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status	P	Site was being pumped.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

- [Questions about sites/data?](#)
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- [Help](#)
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Accessibility Plug-Ins FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

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





National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

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- [Full News](#)

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 324403104013601

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 324403104013601 18S.29E.24.23313

Eddy County, New Mexico
Latitude 32°44'03", Longitude 104°01'36" NAD27
Land-surface elevation 3,443 feet above NAVD88
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1965-12-20		D	147.54			2	P		U		A
1968-03-08		D	160.70			2	P		U		A
1971-04-08		D	160.20			2	P		U		A
1976-05-28		D	145.98			2			U		A
1983-04-12		D	155.85			2			U		A
1986-06-03		D	162.09			2		S		U	A
1990-09-19		D	153.24			2		S		U	A
1994-03-11		D	174.41			2		S		U	A
1994-03-30		D	150.16			2		S		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions about sites/data?](#)

[Feedback on this web site](#)

Appendix B

Field Data and Soil Profile Logs

C & M Services, LLC

PO Box 3470
Hobbs, NM 88241

Phone: 575-631-4007

Work Ticket **25378**

Company <i>E Tech</i>	Date <i>7-27-20</i>	Time	Start <i>0600</i> AM PM
Lease <i>Artes 19 IL Fed Com 1H</i>	Purchase Order	Finish <i>1100</i> AM PM	
AFE#	Work Order #		
Paykey	Ordered by: <i>Lance Chewshaw</i>		
Cost Center	RRC # / COM #		

Description of Work *Made 1 call. Drilled location to 55'.*

Labor					Equipment				
	Employee	Hours	Rate	Total		Unit #	Hours	Rate	Total
Welding					Welding Rig				
Carbon Welder					Beveling Machines				
Stainless Steel Welder					Fiberglass Machine				
Welders Helper									
Welding Inspector					Pickup				
					1 Ton Truck				
Construction					28 Ton Crane				
Superintendent					Backhoe				
Foreman					Trackhoe				
Trackhoe Operator					Paint/Sandblasting Rig				
Backhoe Operator					Air Compressor				
D6 Dozer Operator					Skid Steer				
Painter/Sandblaster					Jack Hammer				
Lead Hand					Compactor				
Skilled Laborer					Generator				
Operators Helper					Line Locator				
General Laborer					Transit				
General Laborer					Tool Trailer				
					Pipe Trailer				
Environmental					Utility Trailer				
Project Lead/Superintendent					Dump/Trash Trailer				
Sample Tech					Drill	<i>Beaver</i>	<i>5</i>		
Mapping Tech/Admin					Dozer				
Drill Operator	<i>m Burton</i>	<i>5</i>			Loader				
					Blade				
Roustabout									
Pusher					2 Ton Gang Truck				
Roustabout					1 Ton Gang Truck				
Roustabout					Fusion Machine				
					Containment Trailer				
Other					Poly Trailer				
Pumper									
Flare Watch					Materials:				
Containment Crew					Description	Part No.	QTY	Amount	Total

Fuel Surcharge _____ at _____
Mileage _____ at _____

- Andrews County
- Chaves County
- Lea County
- Gaines County
- Eddy County
- Hobbs, NM
- Other _____

Sub Total _____
Tax _____
TOTAL _____

Customer's Signature: _____

Aries 19 IL #1H

Log of Boring:

Job #
 DATE 7-27-20
 Drill Start 0700
 Drill End 1100
 Site Name Aries
 Water Level

Auger Type
 Auger Size 4"
 Driller Burton
 Logger Burton
 Sample Type Soil

Surface-
 Grout-
 Hole Plug-
 Sand-

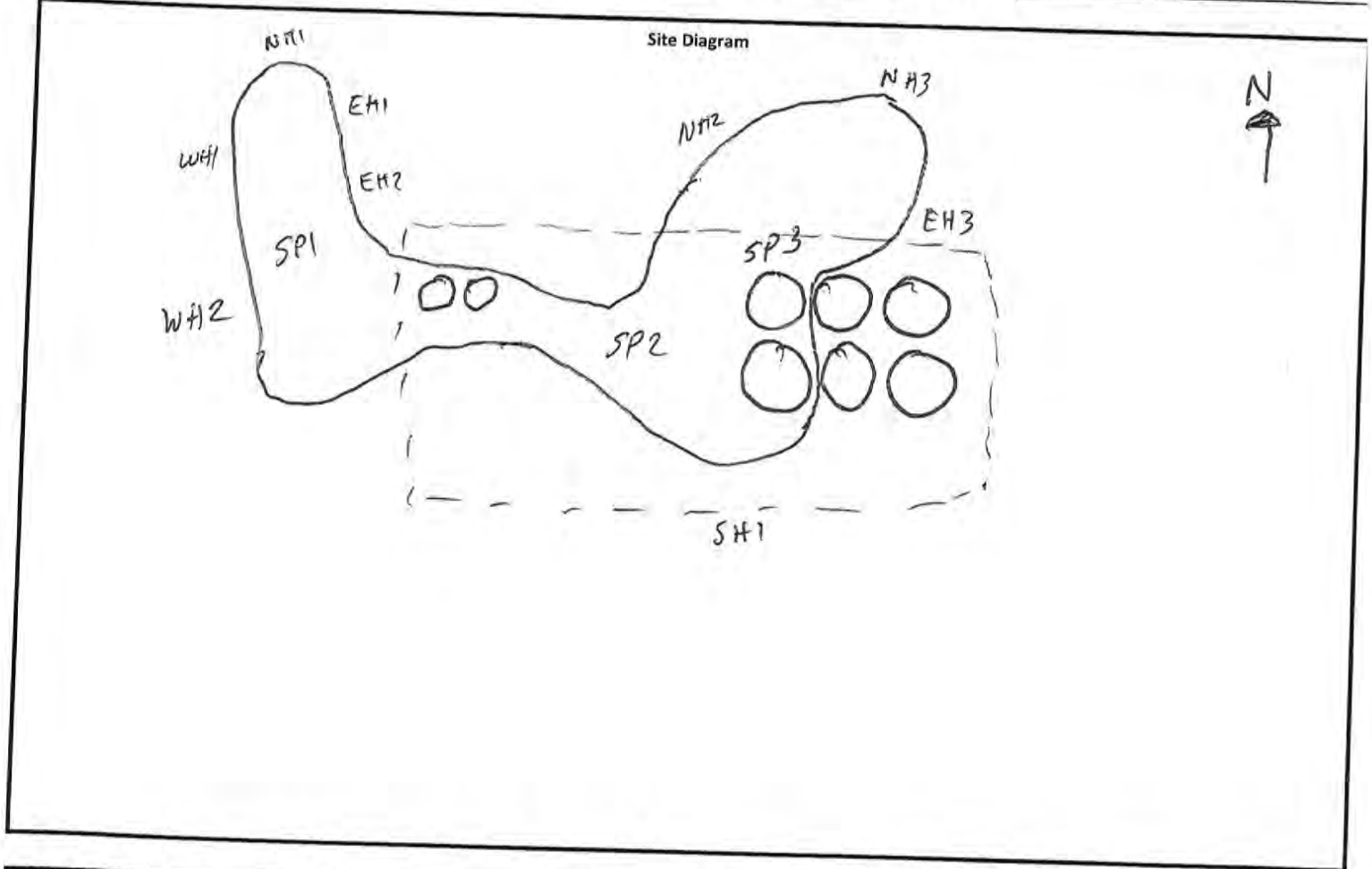
Riser-
 Screen-

Depth in Feet	Well Con	USCS	DESCRIPTION	Color	Sample	PID
0			Sand	Red		
5						
10			Sand caliche mix	Red gray		
15			caliche	white		
20			Sand	Red		
25						
30			Sand clay mix	Red Deep Red		
35			clay	Deep Red		
40						
45						
50			clay sand mix	Red		
55			clay sand mix	Red		



Initial Release Assessment Form

Project: Arctic 19 Date: 7.13.20
 Project Number: _____ Clean Up Level: _____
 Latitude: _____ Longitude: _____



Notes:
 Auger was only 4' so we hit refusal at 4'

~Length: _____ ~Width: _____ ~Area: _____ ~Depth: 4'

- | | | |
|--|---|-----------------------------|
| 3-4 Representative Pictures of the Affected Area including sample locations? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Necessary Samples Field Screened and on Ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample and Field Screen Data Entered on Sample Log? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Was horizontal and vertical delineation achieved? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |



Soil Profile

Project: Aries 19 IL Federal Com #001H Date: _____
 Project Number: 12682 Latitude: 32.727136 Longitude: -104.005836

Depth (ft. bgs)

Depth (ft. bgs)	Description
1	Blow Sand
2	Sand-red
3	Sand-red
4	Sand-clay red
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	



Sample Log

Date: 7-13-20

Project: Aries 19

Project Number: _____ Latitude: _____ Longitude: _____

Sample ID	PID/Odor	Chloride Conc.	GPS
SP1@surface	low	6260	
SP1@1'	none	4176	
SP1@2'	none	4176	
SP1@3'	none	1432	
SP1@4'-R	none	348	
SP2@surface	low	24756	
SP2@1'	none	2604	
SP2@2'	none	4176	
SP2@3'	none	4904	
SP2@4'-R	none	9584	
SP3@surface	low	15528	
SP3@1'	none	3852	
SP3@2'	none	2388	
SP3@3'	none	2052	
SP3@4'-R	none	2052	
NH1@surface	none	>128	
NH1@1'	none	>128	
NH2@surface	none	>128	
NH2@1'	none	>128	
NH3@surface	none	>128	
NH3@1'	none	>128	
EH1@surface	none	>128	
EH1@1'	none	>128	
EH2@surface	none	>128	
EH2@1'	none	>128	
EH3@surface	none	>128	
EH3@1'	none	>128	
SH@surface	none	360	
SH@1'	none	248	
WH1@surface	none	>128	
WH1@1'	none	>128	
WH2@surface	none	>128	
WH2@1'	none	>128	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ##

Resamples = SP #1 @ 5b or SW #1b

Floor = FL #1 etc

Refusal = SP #1 @ 4'-R

Stockpile = Stockpile #1

Sidewall = SW #1 etc

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

GPS Sample Points, Center of Comp Areas



Sample Log

Date: _____

Project: Aries 19 IL Federal Com #001H

Project Number: 12682 Latitude: 32.727136 Longitude: -104.005836

Sample ID	PID/Odor	Chloride Conc.	GPS
FS-1 EW-A	None	132 120	
FS-2 EW-C	None	112 364	
FS-3 WW-D	None	117 <120	
FS-4	None	116	
FS-5 EW-1	None	120	
FS-6 FS-1	None	8,776	7'
FS-7 FS-2	None	<120	3'
FS-8 EW-2	None	<120	
FS-9 FS-6	None	5,768	7'
FS-10 NW-1	None	<120	
FS-11 FS-5	None	184 148	2'
FS-3	None	120	3'
FS-4	None	<120	2'
NW-2	None	<120	
FS-8	None	11464/6084	8'
FS-7	None	148	2'
FS-9	None	<120	2'
FS-10	None	21595/3272	4'
FS-11	None	228/148	3'
NW-3	None	184	
NW-4	None	224	
NW-5	None	184	
WW-1	None	268	
WW-2	None	148	
SW-A	None	316	
NW-A	None	120	
FS-A	None	224	2'
FS-B	None	688/216	3'
FS-C	None	120	3'
FS-D	None	316	4'
FS-E	None	364	2'
WW-A	None	<120	
WW-B	None	<120	
WW-C	None	<120	
EW-B	None	<120	
EW-D	None	148	

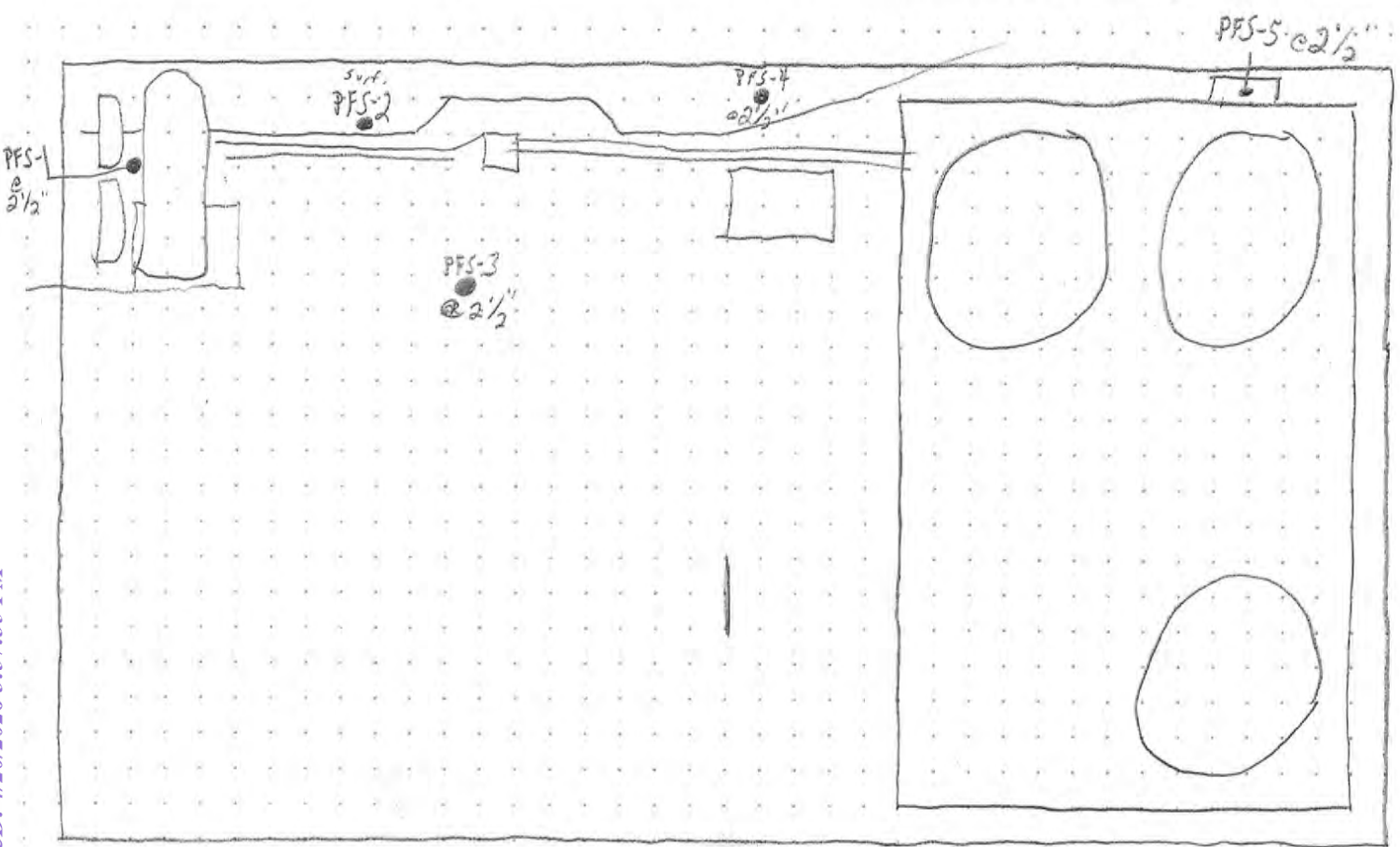
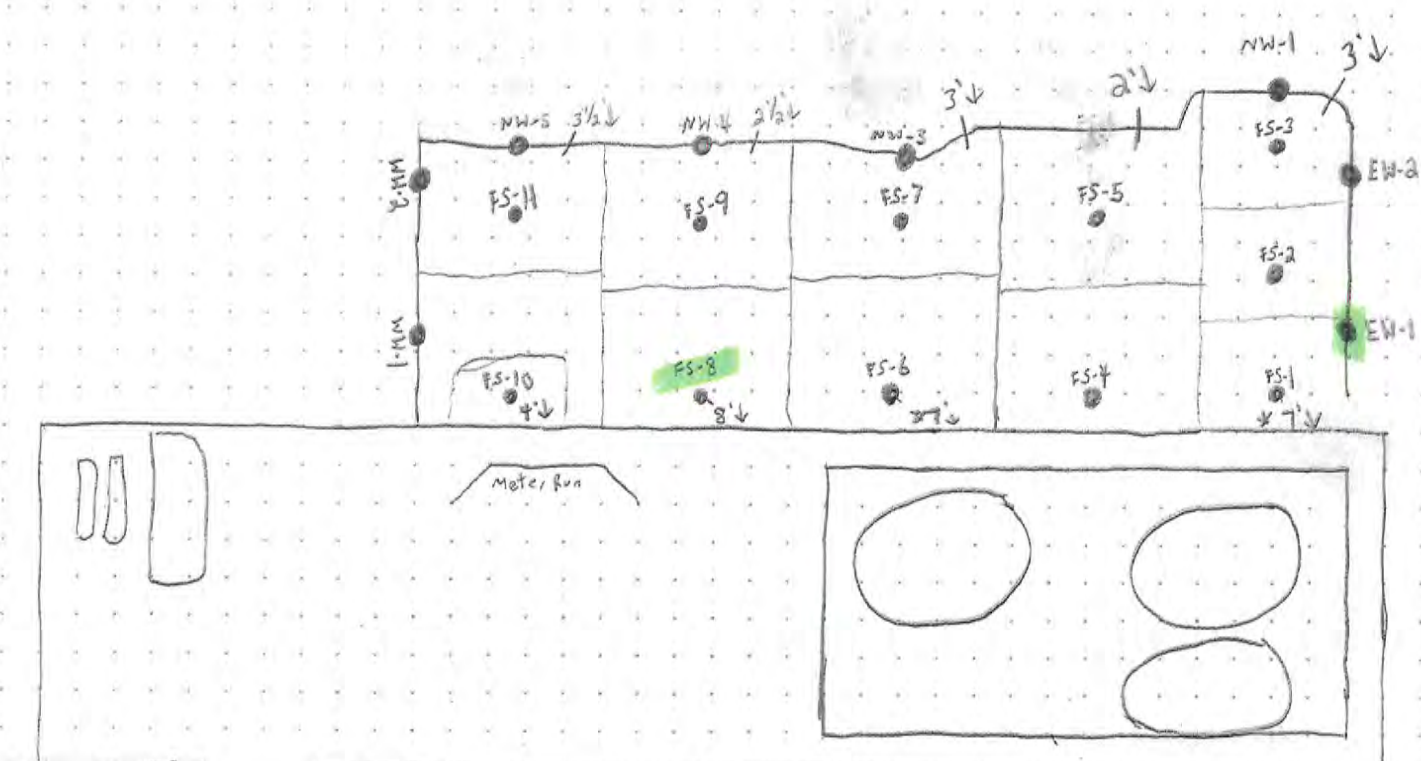
Sample Point = SP #1 @ ## etc
 Floor = FL #1 etc
 Sidewall = SW #1 etc

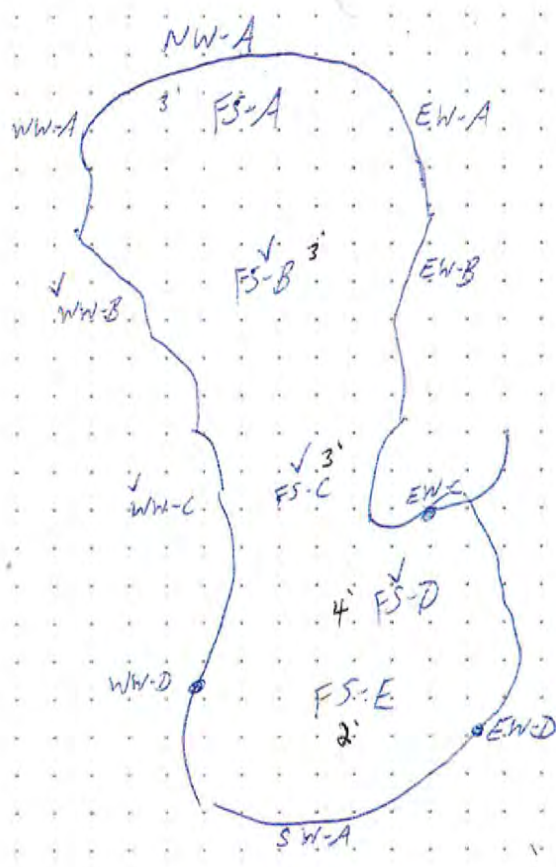
Test Trench = TT #1 @ ##
 Refusal = SP #1 @ 4'-R
 Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples = SP #1 @ 5b or SW #1b
 Stockpile = Stockpile #1
 GPS Sample Points, Center of Comp Areas

Sample ID

PFS-1	12340 / 572 @ 2 1/2"
PFS-2	812
PFS-3	16356 / 120 @ 2 1/2"
PFS-4	15168 / 4,848 @ 2 1/2"
PFS-5	14928 / 4,124 @ 2 1/2"
SW-5	364
SW-4	148
SW-3	184
SW-2	148
SW-1	184
EW 1B	<u>TPH</u>
	no smell
	<u>Cl</u>
FS-804'	6200 ppm





Appendix C

Laboratory Analytical Reports



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

July 22, 2020

Robbie Runnels
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
TEL: (575) 393-5905
FAX

RE: Aries 19 IL Fed Com 1H Tank Battery

OrderNo.: 2007748

Dear Robbie Runnels:

Hall Environmental Analysis Laboratory received 24 sample(s) on 7/15/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SH1 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-001

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	170	60		mg/Kg	20	7/20/2020 1:14:48 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	7/18/2020 4:59:10 AM	53735
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/18/2020 4:59:10 AM	53735
Surr: DNOP	121	55.1-146		%Rec	1	7/18/2020 4:59:10 AM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/16/2020 4:43:25 PM	53734
Surr: BFB	88.3	66.6-105		%Rec	1	7/16/2020 4:43:25 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/16/2020 4:43:25 PM	53734
Toluene	ND	0.048		mg/Kg	1	7/16/2020 4:43:25 PM	53734
Ethylbenzene	ND	0.048		mg/Kg	1	7/16/2020 4:43:25 PM	53734
Xylenes, Total	ND	0.096		mg/Kg	1	7/16/2020 4:43:25 PM	53734
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	7/16/2020 4:43:25 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SH1 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-002

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	73	59		mg/Kg	20	7/20/2020 2:16:49 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/18/2020 5:23:20 AM	53735
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/18/2020 5:23:20 AM	53735
Surr: DNOP	119	55.1-146		%Rec	1	7/18/2020 5:23:20 AM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/16/2020 7:52:36 PM	53734
Surr: BFB	89.4	66.6-105		%Rec	1	7/16/2020 7:52:36 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/16/2020 7:52:36 PM	53734
Toluene	ND	0.048		mg/Kg	1	7/16/2020 7:52:36 PM	53734
Ethylbenzene	ND	0.048		mg/Kg	1	7/16/2020 7:52:36 PM	53734
Xylenes, Total	ND	0.097		mg/Kg	1	7/16/2020 7:52:36 PM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/16/2020 7:52:36 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NH1 @Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-003

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 2:29:14 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/16/2020 8:00:04 PM	53735
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/16/2020 8:00:04 PM	53735
Surr: DNOP	149	55.1-146	S	%Rec	1	7/16/2020 8:00:04 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/16/2020 9:03:11 PM	53734
Surr: BFB	83.7	66.6-105		%Rec	1	7/16/2020 9:03:11 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	7/16/2020 9:03:11 PM	53734
Toluene	ND	0.046		mg/Kg	1	7/16/2020 9:03:11 PM	53734
Ethylbenzene	ND	0.046		mg/Kg	1	7/16/2020 9:03:11 PM	53734
Xylenes, Total	ND	0.092		mg/Kg	1	7/16/2020 9:03:11 PM	53734
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	7/16/2020 9:03:11 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NH1 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-004

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 2:41:39 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	7/16/2020 8:10:23 PM	53735
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	7/16/2020 8:10:23 PM	53735
Surr: DNOP	123	55.1-146		%Rec	1	7/16/2020 8:10:23 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/16/2020 9:26:42 PM	53734
Surr: BFB	84.5	66.6-105		%Rec	1	7/16/2020 9:26:42 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/16/2020 9:26:42 PM	53734
Toluene	ND	0.049		mg/Kg	1	7/16/2020 9:26:42 PM	53734
Ethylbenzene	ND	0.049		mg/Kg	1	7/16/2020 9:26:42 PM	53734
Xylenes, Total	ND	0.098		mg/Kg	1	7/16/2020 9:26:42 PM	53734
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	7/16/2020 9:26:42 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NH2 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-005

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 2:54:03 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	7/16/2020 8:20:40 PM	53735
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/16/2020 8:20:40 PM	53735
Surr: DNOP	104	55.1-146		%Rec	1	7/16/2020 8:20:40 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/16/2020 9:50:10 PM	53734
Surr: BFB	82.2	66.6-105		%Rec	1	7/16/2020 9:50:10 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/16/2020 9:50:10 PM	53734
Toluene	ND	0.047		mg/Kg	1	7/16/2020 9:50:10 PM	53734
Ethylbenzene	ND	0.047		mg/Kg	1	7/16/2020 9:50:10 PM	53734
Xylenes, Total	ND	0.095		mg/Kg	1	7/16/2020 9:50:10 PM	53734
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/16/2020 9:50:10 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NH2 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-006

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 3:06:28 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/16/2020 8:31:01 PM	53735
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2020 8:31:01 PM	53735
Surr: DNOP	101	55.1-146		%Rec	1	7/16/2020 8:31:01 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/16/2020 10:13:34 PM	53734
Surr: BFB	87.9	66.6-105		%Rec	1	7/16/2020 10:13:34 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	7/16/2020 10:13:34 PM	53734
Toluene	ND	0.049		mg/Kg	1	7/16/2020 10:13:34 PM	53734
Ethylbenzene	ND	0.049		mg/Kg	1	7/16/2020 10:13:34 PM	53734
Xylenes, Total	ND	0.099		mg/Kg	1	7/16/2020 10:13:34 PM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/16/2020 10:13:34 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NH3 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-007

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	7/20/2020 3:18:53 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/16/2020 8:41:20 PM	53735
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/16/2020 8:41:20 PM	53735
Surr: DNOP	99.1	55.1-146		%Rec	1	7/16/2020 8:41:20 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/16/2020 10:36:57 PM	53734
Surr: BFB	89.2	66.6-105		%Rec	1	7/16/2020 10:36:57 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/16/2020 10:36:57 PM	53734
Toluene	ND	0.048		mg/Kg	1	7/16/2020 10:36:57 PM	53734
Ethylbenzene	ND	0.048		mg/Kg	1	7/16/2020 10:36:57 PM	53734
Xylenes, Total	ND	0.096		mg/Kg	1	7/16/2020 10:36:57 PM	53734
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/16/2020 10:36:57 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NH3 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-008

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 3:31:18 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/16/2020 8:51:35 PM	53735
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2020 8:51:35 PM	53735
Surr: DNOP	110	55.1-146		%Rec	1	7/16/2020 8:51:35 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/16/2020 11:00:19 PM	53734
Surr: BFB	90.1	66.6-105		%Rec	1	7/16/2020 11:00:19 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/16/2020 11:00:19 PM	53734
Toluene	ND	0.049		mg/Kg	1	7/16/2020 11:00:19 PM	53734
Ethylbenzene	ND	0.049		mg/Kg	1	7/16/2020 11:00:19 PM	53734
Xylenes, Total	ND	0.097		mg/Kg	1	7/16/2020 11:00:19 PM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/16/2020 11:00:19 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EH1 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-009

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	61		mg/Kg	20	7/20/2020 3:43:42 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/16/2020 9:01:48 PM	53735
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/16/2020 9:01:48 PM	53735
Surr: DNOP	110	55.1-146		%Rec	1	7/16/2020 9:01:48 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/16/2020 11:23:44 PM	53734
Surr: BFB	86.7	66.6-105		%Rec	1	7/16/2020 11:23:44 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/16/2020 11:23:44 PM	53734
Toluene	ND	0.048		mg/Kg	1	7/16/2020 11:23:44 PM	53734
Ethylbenzene	ND	0.048		mg/Kg	1	7/16/2020 11:23:44 PM	53734
Xylenes, Total	ND	0.097		mg/Kg	1	7/16/2020 11:23:44 PM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/16/2020 11:23:44 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EH1 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-010

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	7/20/2020 4:20:56 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	7/16/2020 9:12:05 PM	53735
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/16/2020 9:12:05 PM	53735
Surr: DNOP	107	55.1-146		%Rec	1	7/16/2020 9:12:05 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/16/2020 11:47:13 PM	53734
Surr: BFB	83.1	66.6-105		%Rec	1	7/16/2020 11:47:13 PM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	7/16/2020 11:47:13 PM	53734
Toluene	ND	0.047		mg/Kg	1	7/16/2020 11:47:13 PM	53734
Ethylbenzene	ND	0.047		mg/Kg	1	7/16/2020 11:47:13 PM	53734
Xylenes, Total	ND	0.094		mg/Kg	1	7/16/2020 11:47:13 PM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/16/2020 11:47:13 PM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: **7/22/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EH2 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-011

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 4:33:21 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/16/2020 9:22:16 PM	53735
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/16/2020 9:22:16 PM	53735
Surr: DNOP	93.1	55.1-146		%Rec	1	7/16/2020 9:22:16 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/17/2020 12:10:34 AM	53734
Surr: BFB	83.6	66.6-105		%Rec	1	7/17/2020 12:10:34 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	7/17/2020 12:10:34 AM	53734
Toluene	ND	0.049		mg/Kg	1	7/17/2020 12:10:34 AM	53734
Ethylbenzene	ND	0.049		mg/Kg	1	7/17/2020 12:10:34 AM	53734
Xylenes, Total	ND	0.098		mg/Kg	1	7/17/2020 12:10:34 AM	53734
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	7/17/2020 12:10:34 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EH2 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-012

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 4:45:46 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	7/16/2020 9:32:33 PM	53735
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/16/2020 9:32:33 PM	53735
Surr: DNOP	96.8	55.1-146		%Rec	1	7/16/2020 9:32:33 PM	53735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/17/2020 12:57:24 AM	53734
Surr: BFB	84.7	66.6-105		%Rec	1	7/17/2020 12:57:24 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/17/2020 12:57:24 AM	53734
Toluene	ND	0.047		mg/Kg	1	7/17/2020 12:57:24 AM	53734
Ethylbenzene	ND	0.047		mg/Kg	1	7/17/2020 12:57:24 AM	53734
Xylenes, Total	ND	0.094		mg/Kg	1	7/17/2020 12:57:24 AM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/17/2020 12:57:24 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EH3 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-013

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 4:58:10 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/16/2020 11:46:05 AM	53747
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/16/2020 11:46:05 AM	53747
Surr: DNOP	104	55.1-146		%Rec	1	7/16/2020 11:46:05 AM	53747
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/17/2020 1:20:48 AM	53734
Surr: BFB	88.4	66.6-105		%Rec	1	7/17/2020 1:20:48 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/17/2020 1:20:48 AM	53734
Toluene	ND	0.047		mg/Kg	1	7/17/2020 1:20:48 AM	53734
Ethylbenzene	ND	0.047		mg/Kg	1	7/17/2020 1:20:48 AM	53734
Xylenes, Total	ND	0.095		mg/Kg	1	7/17/2020 1:20:48 AM	53734
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	7/17/2020 1:20:48 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EH3 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-014

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 5:10:34 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	14	9.7		mg/Kg	1	7/16/2020 2:09:57 PM	53747
Motor Oil Range Organics (MRO)	61	48		mg/Kg	1	7/16/2020 2:09:57 PM	53747
Surr: DNOP	46.8	55.1-146	S	%Rec	1	7/16/2020 2:09:57 PM	53747
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/17/2020 1:44:19 AM	53734
Surr: BFB	84.8	66.6-105		%Rec	1	7/17/2020 1:44:19 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	7/17/2020 1:44:19 AM	53734
Toluene	ND	0.046		mg/Kg	1	7/17/2020 1:44:19 AM	53734
Ethylbenzene	ND	0.046		mg/Kg	1	7/17/2020 1:44:19 AM	53734
Xylenes, Total	ND	0.092		mg/Kg	1	7/17/2020 1:44:19 AM	53734
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	7/17/2020 1:44:19 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WH1 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-015

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 5:22:59 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/16/2020 12:06:08 PM	53747
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/16/2020 12:06:08 PM	53747
Surr: DNOP	102	55.1-146		%Rec	1	7/16/2020 12:06:08 PM	53747
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/17/2020 2:07:47 AM	53734
Surr: BFB	85.9	66.6-105		%Rec	1	7/17/2020 2:07:47 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/17/2020 2:07:47 AM	53734
Toluene	ND	0.047		mg/Kg	1	7/17/2020 2:07:47 AM	53734
Ethylbenzene	ND	0.047		mg/Kg	1	7/17/2020 2:07:47 AM	53734
Xylenes, Total	ND	0.095		mg/Kg	1	7/17/2020 2:07:47 AM	53734
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	7/17/2020 2:07:47 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WH1 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-016

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 5:35:23 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/16/2020 12:16:12 PM	53747
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/16/2020 12:16:12 PM	53747
Surr: DNOP	109	55.1-146		%Rec	1	7/16/2020 12:16:12 PM	53747
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/17/2020 2:31:09 AM	53734
Surr: BFB	85.5	66.6-105		%Rec	1	7/17/2020 2:31:09 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/17/2020 2:31:09 AM	53734
Toluene	ND	0.048		mg/Kg	1	7/17/2020 2:31:09 AM	53734
Ethylbenzene	ND	0.048		mg/Kg	1	7/17/2020 2:31:09 AM	53734
Xylenes, Total	ND	0.096		mg/Kg	1	7/17/2020 2:31:09 AM	53734
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	7/17/2020 2:31:09 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WH2 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-017

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 5:47:48 PM	53826
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/16/2020 12:26:28 PM	53747
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/16/2020 12:26:28 PM	53747
Surr: DNOP	104	55.1-146		%Rec	1	7/16/2020 12:26:28 PM	53747
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/17/2020 2:54:38 AM	53734
Surr: BFB	86.5	66.6-105		%Rec	1	7/17/2020 2:54:38 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/17/2020 2:54:38 AM	53734
Toluene	ND	0.049		mg/Kg	1	7/17/2020 2:54:38 AM	53734
Ethylbenzene	ND	0.049		mg/Kg	1	7/17/2020 2:54:38 AM	53734
Xylenes, Total	ND	0.098		mg/Kg	1	7/17/2020 2:54:38 AM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/17/2020 2:54:38 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WH2 @ 1'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-018

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	7/20/2020 6:49:50 PM	53832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/16/2020 12:36:46 PM	53747
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2020 12:36:46 PM	53747
Surr: DNOP	107	55.1-146		%Rec	1	7/16/2020 12:36:46 PM	53747
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/17/2020 3:18:03 AM	53734
Surr: BFB	87.0	66.6-105		%Rec	1	7/17/2020 3:18:03 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	7/17/2020 3:18:03 AM	53734
Toluene	ND	0.049		mg/Kg	1	7/17/2020 3:18:03 AM	53734
Ethylbenzene	ND	0.049		mg/Kg	1	7/17/2020 3:18:03 AM	53734
Xylenes, Total	ND	0.098		mg/Kg	1	7/17/2020 3:18:03 AM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/17/2020 3:18:03 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SP1 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-019

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	5700	300		mg/Kg	100	7/21/2020 2:43:20 PM	53832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/16/2020 12:47:03 PM	53747
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/16/2020 12:47:03 PM	53747
Surr: DNOP	106	55.1-146		%Rec	1	7/16/2020 12:47:03 PM	53747
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/17/2020 3:41:27 AM	53734
Surr: BFB	89.2	66.6-105		%Rec	1	7/17/2020 3:41:27 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	7/17/2020 3:41:27 AM	53734
Toluene	ND	0.047		mg/Kg	1	7/17/2020 3:41:27 AM	53734
Ethylbenzene	ND	0.047		mg/Kg	1	7/17/2020 3:41:27 AM	53734
Xylenes, Total	ND	0.094		mg/Kg	1	7/17/2020 3:41:27 AM	53734
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/17/2020 3:41:27 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SP1 @ 4-R

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-020

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	300	60		mg/Kg	20	7/20/2020 7:39:28 PM	53832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/16/2020 12:57:21 PM	53747
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/16/2020 12:57:21 PM	53747
Surr: DNOP	105	55.1-146		%Rec	1	7/16/2020 12:57:21 PM	53747
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/17/2020 4:04:58 AM	53734
Surr: BFB	85.1	66.6-105		%Rec	1	7/17/2020 4:04:58 AM	53734
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/17/2020 4:04:58 AM	53734
Toluene	ND	0.048		mg/Kg	1	7/17/2020 4:04:58 AM	53734
Ethylbenzene	ND	0.048		mg/Kg	1	7/17/2020 4:04:58 AM	53734
Xylenes, Total	ND	0.095		mg/Kg	1	7/17/2020 4:04:58 AM	53734
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/17/2020 4:04:58 AM	53734

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2007748**

Date Reported: **7/22/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SP2 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-021

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	32000	1500		mg/Kg	500	7/21/2020 2:55:41 PM	53832
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/16/2020 3:05:59 PM	53736
Surr: BFB	112	70-130		%Rec	1	7/16/2020 3:05:59 PM	53736
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	1500	190		mg/Kg	20	7/17/2020 6:15:30 PM	53750
Motor Oil Range Organics (MRO)	2000	970		mg/Kg	20	7/17/2020 6:15:30 PM	53750
Surr: DNOP	0	55.1-146	S	%Rec	20	7/17/2020 6:15:30 PM	53750
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	7/16/2020 3:05:59 PM	53736
Toluene	ND	0.048		mg/Kg	1	7/16/2020 3:05:59 PM	53736
Ethylbenzene	ND	0.048		mg/Kg	1	7/16/2020 3:05:59 PM	53736
Xylenes, Total	ND	0.096		mg/Kg	1	7/16/2020 3:05:59 PM	53736
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%Rec	1	7/16/2020 3:05:59 PM	53736
Surr: 4-Bromofluorobenzene	93.5	70-130		%Rec	1	7/16/2020 3:05:59 PM	53736
Surr: Dibromofluoromethane	97.3	70-130		%Rec	1	7/16/2020 3:05:59 PM	53736
Surr: Toluene-d8	99.9	70-130		%Rec	1	7/16/2020 3:05:59 PM	53736

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2007748**

Date Reported: **7/22/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SP2 @ 4-R

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-022

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	9100	300		mg/Kg	100	7/21/2020 3:08:02 PM	53832
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/16/2020 4:36:00 PM	53736
Surr: BFB	109	70-130		%Rec	1	7/16/2020 4:36:00 PM	53736
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/17/2020 6:26:04 PM	53750
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/17/2020 6:26:04 PM	53750
Surr: DNOP	102	55.1-146		%Rec	1	7/17/2020 6:26:04 PM	53750
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/16/2020 4:36:00 PM	53736
Toluene	ND	0.049		mg/Kg	1	7/16/2020 4:36:00 PM	53736
Ethylbenzene	ND	0.049		mg/Kg	1	7/16/2020 4:36:00 PM	53736
Xylenes, Total	ND	0.098		mg/Kg	1	7/16/2020 4:36:00 PM	53736
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	7/16/2020 4:36:00 PM	53736
Surr: 4-Bromofluorobenzene	96.3	70-130		%Rec	1	7/16/2020 4:36:00 PM	53736
Surr: Dibromofluoromethane	102	70-130		%Rec	1	7/16/2020 4:36:00 PM	53736
Surr: Toluene-d8	97.7	70-130		%Rec	1	7/16/2020 4:36:00 PM	53736

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2007748**

Date Reported: **7/22/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SP3 @ Surf.

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-023

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	23000	1500		mg/Kg	500	7/21/2020 3:20:23 PM	53832
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/16/2020 6:06:30 PM	53736
Surr: BFB	111	70-130		%Rec	1	7/16/2020 6:06:30 PM	53736
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	10	9.5		mg/Kg	1	7/17/2020 6:36:34 PM	53750
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/17/2020 6:36:34 PM	53750
Surr: DNOP	104	55.1-146		%Rec	1	7/17/2020 6:36:34 PM	53750
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	7/16/2020 6:06:30 PM	53736
Toluene	ND	0.050		mg/Kg	1	7/16/2020 6:06:30 PM	53736
Ethylbenzene	ND	0.050		mg/Kg	1	7/16/2020 6:06:30 PM	53736
Xylenes, Total	ND	0.099		mg/Kg	1	7/16/2020 6:06:30 PM	53736
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%Rec	1	7/16/2020 6:06:30 PM	53736
Surr: 4-Bromofluorobenzene	95.0	70-130		%Rec	1	7/16/2020 6:06:30 PM	53736
Surr: Dibromofluoromethane	99.2	70-130		%Rec	1	7/16/2020 6:06:30 PM	53736
Surr: Toluene-d8	96.8	70-130		%Rec	1	7/16/2020 6:06:30 PM	53736

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2007748**

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SP3 @ 4-R

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 7/13/2020

Lab ID: 2007748-024

Matrix: SOIL

Received Date: 7/15/2020 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	2200	150		mg/Kg	50	7/21/2020 3:57:24 PM	53832
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/16/2020 6:36:33 PM	53736
Surr: BFB	109	70-130		%Rec	1	7/16/2020 6:36:33 PM	53736
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/17/2020 6:47:03 PM	53750
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/17/2020 6:47:03 PM	53750
Surr: DNOP	105	55.1-146		%Rec	1	7/17/2020 6:47:03 PM	53750
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.023		mg/Kg	1	7/16/2020 6:36:33 PM	53736
Toluene	ND	0.047		mg/Kg	1	7/16/2020 6:36:33 PM	53736
Ethylbenzene	ND	0.047		mg/Kg	1	7/16/2020 6:36:33 PM	53736
Xylenes, Total	ND	0.093		mg/Kg	1	7/16/2020 6:36:33 PM	53736
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%Rec	1	7/16/2020 6:36:33 PM	53736
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	7/16/2020 6:36:33 PM	53736
Surr: Dibromofluoromethane	95.3	70-130		%Rec	1	7/16/2020 6:36:33 PM	53736
Surr: Toluene-d8	95.1	70-130		%Rec	1	7/16/2020 6:36:33 PM	53736

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: MB-53826	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53826	RunNo: 70463								
Prep Date: 7/20/2020	Analysis Date: 7/20/2020	SeqNo: 2451222	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53826	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53826	RunNo: 70463								
Prep Date: 7/20/2020	Analysis Date: 7/20/2020	SeqNo: 2451223	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	90	110			

Sample ID: MB-53832	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53832	RunNo: 70463								
Prep Date: 7/20/2020	Analysis Date: 7/20/2020	SeqNo: 2451252	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53832	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53832	RunNo: 70463								
Prep Date: 7/20/2020	Analysis Date: 7/20/2020	SeqNo: 2451253	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: MB-53747	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53747	RunNo: 70378								
Prep Date: 7/16/2020	Analysis Date: 7/16/2020	SeqNo: 2446274	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	55.1	146			

Sample ID: LCS-53747	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53747	RunNo: 70378								
Prep Date: 7/16/2020	Analysis Date: 7/16/2020	SeqNo: 2446275	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	70	130			
Surr: DNOP	5.5		5.000		111	55.1	146			

Sample ID: MB-53715	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53715	RunNo: 70379								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2446278	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.5		10.00		75.5	55.1	146			

Sample ID: LCS-53715	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53715	RunNo: 70379								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2446279	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		77.2	55.1	146			

Sample ID: LCS-53718	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53718	RunNo: 70424								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2448151	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.6		5.000		71.7	55.1	146			

Sample ID: LCS-53735	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53735	RunNo: 70424								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2448152	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	105	70	130			
Surr: DNOP	4.5		5.000		90.1	55.1	146			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: MB-53718	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53718	RunNo: 70424								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2448153	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.2		10.00		72.3	55.1	146			

Sample ID: MB-53735	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53735	RunNo: 70424								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2448154	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		85.3	55.1	146			

Sample ID: MB-53750	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53750	RunNo: 70416								
Prep Date: 7/16/2020	Analysis Date: 7/17/2020	SeqNo: 2448420	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		112	55.1	146			

Sample ID: LCS-53750	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53750	RunNo: 70415								
Prep Date: 7/16/2020	Analysis Date: 7/17/2020	SeqNo: 2448671	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	97.0	70	130			
Surr: DNOP	4.0		5.000		79.0	55.1	146			

Sample ID: MB-53759	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53759	RunNo: 70415								
Prep Date: 7/16/2020	Analysis Date: 7/17/2020	SeqNo: 2448672	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		104	55.1	146			

Sample ID: LCS-53759	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53759	RunNo: 70415								
Prep Date: 7/16/2020	Analysis Date: 7/17/2020	SeqNo: 2448673	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: LCS-53759	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53759	RunNo: 70415								
Prep Date: 7/16/2020	Analysis Date: 7/17/2020	SeqNo: 2448673	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		99.9	55.1	146			

Sample ID: MB-53768	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53768	RunNo: 70449								
Prep Date: 7/16/2020	Analysis Date: 7/18/2020	SeqNo: 2450409	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.6		10.00		86.2	55.1	146			

Sample ID: LCS-53768	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53768	RunNo: 70449								
Prep Date: 7/16/2020	Analysis Date: 7/18/2020	SeqNo: 2450412	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.6	55.1	146			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: 2007748-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SH1 @ Surf.	Batch ID: 53734	RunNo: 70385								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447065	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.6	23.06	0	85.4	80	120			
Surr: BFB	890		922.5		96.5	66.6	105			

Sample ID: 2007748-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SH1 @ Surf.	Batch ID: 53734	RunNo: 70385								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447066	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.7	23.67	0	81.8	80	120	1.69	20	
Surr: BFB	930		947.0		97.8	66.6	105	0	0	

Sample ID: lcs-53734	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 53734	RunNo: 70385								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447090	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.8	72.5	106			
Surr: BFB	970		1000		97.3	66.6	105			

Sample ID: mb-53734	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 53734	RunNo: 70385								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447092	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.4	66.6	105			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: 2007748-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SH1 @ 1'	Batch ID: 53734	RunNo: 70385								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447107	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.024	0.9653	0	99.6	78.5	119			
Toluene	0.97	0.048	0.9653	0.01035	99.9	75.7	123			
Ethylbenzene	0.99	0.048	0.9653	0	102	74.3	126			
Xylenes, Total	3.0	0.097	2.896	0	104	72.9	130			
Surr: 4-Bromofluorobenzene	1.0		0.9653		108	80	120			

Sample ID: 2007748-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SH1 @ 1'	Batch ID: 53734	RunNo: 70385								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447108	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9990	0	99.8	78.5	119	3.63	20	
Toluene	1.0	0.050	0.9990	0.01035	99.7	75.7	123	3.20	20	
Ethylbenzene	1.0	0.050	0.9990	0	102	74.3	126	3.24	20	
Xylenes, Total	3.1	0.10	2.997	0	103	72.9	130	2.55	20	
Surr: 4-Bromofluorobenzene	1.1		0.9990		110	80	120	0	0	

Sample ID: LCS-53734	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 53734	RunNo: 70385								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447127	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.7	80	120			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID: mb-53734	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 53734	RunNo: 70385								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447129	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: mb-53736	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 53736	RunNo: 70397								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447161	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.2	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.5	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.7	70	130			
Surr: Toluene-d8	0.49		0.5000		98.0	70	130			

Sample ID: ics-53736	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 53736	RunNo: 70397								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447162	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.5	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.7	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.2	70	130			
Surr: Toluene-d8	0.48		0.5000		96.9	70	130			

Sample ID: 2007748-022ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SP2 @ 4-R	Batch ID: 53736	RunNo: 70397								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447165	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.024	0.9794	0	121	71.1	115			S
Toluene	1.2	0.049	0.9794	0	120	79.6	132			
Ethylbenzene	1.2	0.049	0.9794	0	123	83.8	134			
Xylenes, Total	3.7	0.098	2.938	0	124	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.46		0.4897		93.4	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.4897		94.1	70	130			
Surr: Dibromofluoromethane	0.47		0.4897		95.2	70	130			
Surr: Toluene-d8	0.47		0.4897		95.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: 2007748-022amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SP2 @ 4-R	Batch ID: 53736	RunNo: 70397								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447166	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.024	0.9515	0	127	71.1	115	1.79	20	S
Toluene	1.2	0.048	0.9515	0	125	79.6	132	1.06	20	
Ethylbenzene	1.2	0.048	0.9515	0	126	83.8	134	0.00631	20	
Xylenes, Total	3.7	0.095	2.854	0	129	82.4	132	0.489	20	
Surr: 1,2-Dichloroethane-d4	0.46		0.4757		97.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.46		0.4757		96.7	70	130	0	0	
Surr: Dibromofluoromethane	0.47		0.4757		99.0	70	130	0	0	
Surr: Toluene-d8	0.46		0.4757		96.2	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2007748

22-Jul-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: mb-53736	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 53736	RunNo: 70397								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447271	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	540		500.0		108	70	130			

Sample ID: lcs-53736	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 53736	RunNo: 70397								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447272	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.2	70	130			
Surr: BFB	540		500.0		108	70	130			

Sample ID: 2007748-021ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SP2 @ Surf.	Batch ID: 53736	RunNo: 70397								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447274	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.7	23.36	0	116	70	130			
Surr: BFB	500		467.3		108	70	130			

Sample ID: 2007748-021amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SP2 @ Surf.	Batch ID: 53736	RunNo: 70397								
Prep Date: 7/15/2020	Analysis Date: 7/16/2020	SeqNo: 2447275	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.6	23.17	0	110	70	130	6.34	20	
Surr: BFB	490		463.4		107	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **Mewbourne Oil Company** Work Order Number: **2007748** RcptNo: **1**

Received By: **Juan Rojas** 7/15/2020 9:30:00 AM *Juan Rojas*
 Completed By: **Juan Rojas** 7/15/2020 10:41:11 AM *Juan Rojas*
 Reviewed By: **DAD 7/15/20**

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: *SPA 7.15.20*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

17. **Cooler Information**

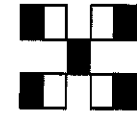
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good				

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107



Analysis Request

Turn-Around Time: 5 days

Standard Rush

Project Name: _____

Aries 19 IL Fed Com #1H Tank Battery

Project #: 12682

Project Manager: Robbie Runnels

Sampler: Miguel Ramirez

On Ice: Yes No

of Coolers: 1

Cooler Temp (Fahrenheit): 58/50/53/50

Container Type and #

HEAL No: 2007748

Date	Time	Matrix	Sample Name	Preservative Type	HEAL No
7/13/20		Soil	SH1 @ Surf.	Ice/Cool	-001
7/13/20		Soil	SH1 @ 1'	Ice/Cool	-002
7/13/20		Soil	NH1 @ Surf.	Ice/Cool	-003
7/13/20		Soil	NH1 @ 1'	Ice/Cool	-004
7/13/20		Soil	NH2 @ Surf.	Ice/Cool	-005
7/13/20		Soil	NH2 @ 1'	Ice/Cool	-006
7/13/20		Soil	NH3 @ Surf.	Ice/Cool	-007
7/13/20		Soil	NH3 @ 1'	Ice/Cool	-008
7/13/20		Soil	EH1 @ Surf.	Ice/Cool	-009
7/13/20		Soil	EH1 @ 1'	Ice/Cool	-010
7/13/20		Soil	EH2 @ Surf.	Ice/Cool	-011
7/13/20		Soil	EH2 @ 1'	Ice/Cool	-012

TPH:8015D(GRO / DRO / MRO) X

BTEX / MTBE / TMS (8021) X

Remarks: Email results to: runnels@mewbourne.com and pm@etechnv.com.

Received by: [Signature] Date: 7/14/20 1530

Relinquished by: [Signature] Date: 7/14/20 900

Received by: [Signature] Date: 7/15/20 930

Chain-of-Custody Record

Client: Mewbourne Oil Company

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time: 5 days

Standard Rush

Project Name:

Aries 19 IL Fed Com #1H Tank Battery

Project #: 12682

Project Manager: Robbie Runnels

Sampler: Miguel Ramirez

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 38 Coolers

Container Type and #

Preservative Type

HEAL No: 2007718

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No
7/13/20		Soil	EH3 @ Surf.	Jar - 1	Ice/Cool	-013
7/13/20		Soil	EH3 @ 1'	Jar - 1	Ice/Cool	-014
7/13/20		Soil	WH1 @ Surf.	Jar - 1	Ice/Cool	-015
7/13/20		Soil	WH1 @ 1'	Jar - 1	Ice/Cool	-016
7/13/20		Soil	WH2 @ Surf.	Jar - 1	Ice/Cool	-017
7/13/20		Soil	WH2 @ 1'	Jar - 1	Ice/Cool	-018
7/13/20		Soil	SP1 @ Surf.	Jar - 1	Ice/Cool	-019
7/13/20		Soil	SP1 @ 4-R	Jar - 1	Ice/Cool	-020
7/13/20		Soil	SP2 @ Surf.	Jar - 1	Ice/Cool	-021
7/13/20		Soil	SP2 @ 4-R	Jar - 1	Ice/Cool	-022
7/13/20		Soil	SP3 @ Surf.	Jar - 1	Ice/Cool	-023
7/13/20		Soil	SP3 @ 4-R	Jar - 1	Ice/Cool	-024

TPH: 8015D (GRO / DRO / MRO) X

BTEX / MTBE / TMS (8021) X

Remarks: Email results to: rrunnels@mewbourne.com and pm@etechnv.com.

Received by: [Signature] Date: 7/14/20 1530

Relinquished by: [Signature] Date: 7/15/20 9:30



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

September 28, 2020

Robbie Runnels
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
TEL: (575) 393-5905
FAX:

RE: Aries 19 IL Federal Com 1H

OrderNo.: 2009E34

Dear Robbie Runnels:

Hall Environmental Analysis Laboratory received 10 sample(s) on 9/24/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-1

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/21/2020

Lab ID: 2009E34-001

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	9400	600		mg/Kg	200	9/24/2020 2:14:58 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/24/2020 10:19:48 AM	55416
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2020 10:19:48 AM	55416
Surr: DNOP	87.6	30.4-154		%Rec	1	9/24/2020 10:19:48 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	9/24/2020 9:49:22 AM	R72111
Surr: BFB	86.6	75.3-105		%Rec	1	9/24/2020 9:49:22 AM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	9/24/2020 9:49:22 AM	BS72111
Toluene	ND	0.034		mg/Kg	1	9/24/2020 9:49:22 AM	BS72111
Ethylbenzene	ND	0.034		mg/Kg	1	9/24/2020 9:49:22 AM	BS72111
Xylenes, Total	ND	0.067		mg/Kg	1	9/24/2020 9:49:22 AM	BS72111
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/24/2020 9:49:22 AM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-2

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/22/2020

Lab ID: 2009E34-002

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/24/2020 11:59:10 AM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/24/2020 10:29:20 AM	55416
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/24/2020 10:29:20 AM	55416
Surr: DNOP	90.2	30.4-154		%Rec	1	9/24/2020 10:29:20 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	9/24/2020 10:12:59 AM	R72111
Surr: BFB	86.0	75.3-105		%Rec	1	9/24/2020 10:12:59 AM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	9/24/2020 10:12:59 AM	BS72111
Toluene	ND	0.030		mg/Kg	1	9/24/2020 10:12:59 AM	BS72111
Ethylbenzene	ND	0.030		mg/Kg	1	9/24/2020 10:12:59 AM	BS72111
Xylenes, Total	ND	0.060		mg/Kg	1	9/24/2020 10:12:59 AM	BS72111
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	9/24/2020 10:12:59 AM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-3

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/22/2020

Lab ID: 2009E34-003

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/24/2020 12:11:32 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/24/2020 10:38:53 AM	55416
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2020 10:38:53 AM	55416
Surr: DNOP	91.7	30.4-154		%Rec	1	9/24/2020 10:38:53 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	9/24/2020 10:36:37 AM	R72111
Surr: BFB	87.9	75.3-105		%Rec	1	9/24/2020 10:36:37 AM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	9/24/2020 10:36:37 AM	BS72111
Toluene	ND	0.030		mg/Kg	1	9/24/2020 10:36:37 AM	BS72111
Ethylbenzene	ND	0.030		mg/Kg	1	9/24/2020 10:36:37 AM	BS72111
Xylenes, Total	ND	0.060		mg/Kg	1	9/24/2020 10:36:37 AM	BS72111
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	9/24/2020 10:36:37 AM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-4

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/22/2020

Lab ID: 2009E34-004

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/24/2020 12:23:52 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/24/2020 11:10:57 AM	55416
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/24/2020 11:10:57 AM	55416
Surr: DNOP	88.1	30.4-154		%Rec	1	9/24/2020 11:10:57 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	9/24/2020 11:00:07 AM	R72111
Surr: BFB	93.8	75.3-105		%Rec	1	9/24/2020 11:00:07 AM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	9/24/2020 11:00:07 AM	BS72111
Toluene	ND	0.030		mg/Kg	1	9/24/2020 11:00:07 AM	BS72111
Ethylbenzene	ND	0.030		mg/Kg	1	9/24/2020 11:00:07 AM	BS72111
Xylenes, Total	ND	0.060		mg/Kg	1	9/24/2020 11:00:07 AM	BS72111
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	9/24/2020 11:00:07 AM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-5

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/22/2020

Lab ID: 2009E34-005

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/24/2020 12:36:13 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/24/2020 11:20:34 AM	55416
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/24/2020 11:20:34 AM	55416
Surr: DNOP	92.9	30.4-154		%Rec	1	9/24/2020 11:20:34 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	9/24/2020 11:23:44 AM	R72111
Surr: BFB	90.2	75.3-105		%Rec	1	9/24/2020 11:23:44 AM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.016		mg/Kg	1	9/24/2020 11:23:44 AM	BS72111
Toluene	ND	0.033		mg/Kg	1	9/24/2020 11:23:44 AM	BS72111
Ethylbenzene	ND	0.033		mg/Kg	1	9/24/2020 11:23:44 AM	BS72111
Xylenes, Total	ND	0.065		mg/Kg	1	9/24/2020 11:23:44 AM	BS72111
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	9/24/2020 11:23:44 AM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW-1

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/22/2020

Lab ID: 2009E34-006

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/24/2020 12:48:33 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/24/2020 11:30:10 AM	55416
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/24/2020 11:30:10 AM	55416
Surr: DNOP	93.3	30.4-154		%Rec	1	9/24/2020 11:30:10 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	9/24/2020 11:47:21 AM	R72111
Surr: BFB	86.6	75.3-105		%Rec	1	9/24/2020 11:47:21 AM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	9/24/2020 11:47:21 AM	BS72111
Toluene	ND	0.033		mg/Kg	1	9/24/2020 11:47:21 AM	BS72111
Ethylbenzene	ND	0.033		mg/Kg	1	9/24/2020 11:47:21 AM	BS72111
Xylenes, Total	ND	0.067		mg/Kg	1	9/24/2020 11:47:21 AM	BS72111
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/24/2020 11:47:21 AM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW-2

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/22/2020

Lab ID: 2009E34-007

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/24/2020 1:00:54 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/24/2020 11:39:50 AM	55416
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/24/2020 11:39:50 AM	55416
Surr: DNOP	92.8	30.4-154		%Rec	1	9/24/2020 11:39:50 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	9/24/2020 12:11:00 PM	R72111
Surr: BFB	90.5	75.3-105		%Rec	1	9/24/2020 12:11:00 PM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	9/24/2020 12:11:00 PM	BS72111
Toluene	ND	0.031		mg/Kg	1	9/24/2020 12:11:00 PM	BS72111
Ethylbenzene	ND	0.031		mg/Kg	1	9/24/2020 12:11:00 PM	BS72111
Xylenes, Total	ND	0.062		mg/Kg	1	9/24/2020 12:11:00 PM	BS72111
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	9/24/2020 12:11:00 PM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW-1

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/21/2020

Lab ID: 2009E34-008

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/24/2020 1:13:14 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	12	10		mg/Kg	1	9/24/2020 10:51:49 AM	55416
Motor Oil Range Organics (MRO)	95	50		mg/Kg	1	9/24/2020 10:51:49 AM	55416
Surr: DNOP	49.9	30.4-154		%Rec	1	9/24/2020 10:51:49 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	9/24/2020 12:34:26 PM	R72111
Surr: BFB	86.2	75.3-105		%Rec	1	9/24/2020 12:34:26 PM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.016		mg/Kg	1	9/24/2020 12:34:26 PM	BS72111
Toluene	ND	0.032		mg/Kg	1	9/24/2020 12:34:26 PM	BS72111
Ethylbenzene	ND	0.032		mg/Kg	1	9/24/2020 12:34:26 PM	BS72111
Xylenes, Total	ND	0.065		mg/Kg	1	9/24/2020 12:34:26 PM	BS72111
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	9/24/2020 12:34:26 PM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW-2

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/22/2020

Lab ID: 2009E34-009

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/24/2020 1:50:18 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/24/2020 11:49:27 AM	55416
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/24/2020 11:49:27 AM	55416
Surr: DNOP	89.9	30.4-154		%Rec	1	9/24/2020 11:49:27 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	9/24/2020 12:57:53 PM	R72111
Surr: BFB	89.4	75.3-105		%Rec	1	9/24/2020 12:57:53 PM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	9/24/2020 12:57:53 PM	BS72111
Toluene	ND	0.035		mg/Kg	1	9/24/2020 12:57:53 PM	BS72111
Ethylbenzene	ND	0.035		mg/Kg	1	9/24/2020 12:57:53 PM	BS72111
Xylenes, Total	ND	0.069		mg/Kg	1	9/24/2020 12:57:53 PM	BS72111
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/24/2020 12:57:53 PM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2009E34

Date Reported: 9/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-6

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/22/2020

Lab ID: 2009E34-010

Matrix: SOIL

Received Date: 9/24/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	8900	600		mg/Kg	200	9/24/2020 2:39:40 PM	55422
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/24/2020 11:59:04 AM	55416
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/24/2020 11:59:04 AM	55416
Surr: DNOP	88.4	30.4-154		%Rec	1	9/24/2020 11:59:04 AM	55416
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/24/2020 1:21:23 PM	R72111
Surr: BFB	91.3	75.3-105		%Rec	1	9/24/2020 1:21:23 PM	R72111
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	9/24/2020 1:21:23 PM	BS72111
Toluene	ND	0.036		mg/Kg	1	9/24/2020 1:21:23 PM	BS72111
Ethylbenzene	ND	0.036		mg/Kg	1	9/24/2020 1:21:23 PM	BS72111
Xylenes, Total	ND	0.073		mg/Kg	1	9/24/2020 1:21:23 PM	BS72111
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/24/2020 1:21:23 PM	BS72111

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009E34

28-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: MB-55422	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 55422	RunNo: 72115								
Prep Date: 9/24/2020	Analysis Date: 9/24/2020	SeqNo: 2529132	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-55422	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 55422	RunNo: 72115								
Prep Date: 9/24/2020	Analysis Date: 9/24/2020	SeqNo: 2529133	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.7	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009E34

28-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: 2009E34-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: FS-1	Batch ID: 55416	RunNo: 72109								
Prep Date: 9/24/2020	Analysis Date: 9/24/2020	SeqNo: 2527026			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.8	49.12	0	91.7	15	184			
Surr: DNOP	4.3		4.912		86.7	30.4	154			

Sample ID: 2009E34-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: FS-1	Batch ID: 55416	RunNo: 72109								
Prep Date: 9/24/2020	Analysis Date: 9/24/2020	SeqNo: 2527027			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.6	47.89	0	91.8	15	184	2.41	23.9	
Surr: DNOP	4.1		4.789		85.2	30.4	154	0	0	

Sample ID: LCS-55416	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55416	RunNo: 72109								
Prep Date: 9/24/2020	Analysis Date: 9/24/2020	SeqNo: 2527038			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.2	70	130			
Surr: DNOP	3.7		5.000		73.8	30.4	154			

Sample ID: MB-55416	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55416	RunNo: 72109								
Prep Date: 9/24/2020	Analysis Date: 9/24/2020	SeqNo: 2527039			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		105	30.4	154			

Sample ID: LCS-55398	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55398	RunNo: 72109								
Prep Date: 9/23/2020	Analysis Date: 9/24/2020	SeqNo: 2527717			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.000		106	30.4	154			

Sample ID: MB-55398	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55398	RunNo: 72109								
Prep Date: 9/23/2020	Analysis Date: 9/24/2020	SeqNo: 2527718			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009E34

28-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: MB-55398	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55398	RunNo: 72109								
Prep Date: 9/23/2020	Analysis Date: 9/24/2020	SeqNo: 2527718	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		111	30.4	154			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009E34

28-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: 2009e34-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: FS-1	Batch ID: R72111	RunNo: 72111								
Prep Date:	Analysis Date: 9/24/2020	SeqNo: 2528297			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	14	3.4	16.86	0	81.1	61.3	114			
Surr: BFB	660		674.3		97.8	75.3	105			

Sample ID: 2009e34-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: FS-1	Batch ID: R72111	RunNo: 72111								
Prep Date:	Analysis Date: 9/24/2020	SeqNo: 2528299			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.4	16.86	0	101	61.3	114	21.6	20	R
Surr: BFB	700		674.3		103	75.3	105	0	0	

Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: R72111	RunNo: 72111								
Prep Date:	Analysis Date: 9/24/2020	SeqNo: 2528301			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.0	75.3	105			

Sample ID: 2.5ug gro lcsb	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: R72111	RunNo: 72111								
Prep Date:	Analysis Date: 9/24/2020	SeqNo: 2528332			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	25.00	0	74.0	72.5	106			
Surr: BFB	940		1000		93.6	75.3	105			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009E34

28-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: 100ng btex lcs	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: BS72111	RunNo: 72111								
Prep Date:	Analysis Date: 9/24/2020	SeqNo: 2528344			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.1	0.050	1.000	0	110	80	120			
Ethylbenzene	1.1	0.050	1.000	0	110	80	120			
Xylenes, Total	3.3	0.10	3.000	0	111	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: BS72111	RunNo: 72111								
Prep Date:	Analysis Date: 9/24/2020	SeqNo: 2528368			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: 2009e34-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: FS-2	Batch ID: BS72111	RunNo: 72111								
Prep Date:	Analysis Date: 9/24/2020	SeqNo: 2528370			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.57	0.015	0.6010	0	95.0	76.3	120			
Toluene	0.59	0.030	0.6010	0	97.8	78.5	120			
Ethylbenzene	0.59	0.030	0.6010	0	97.8	78.1	124			
Xylenes, Total	1.8	0.060	1.803	0	98.4	79.3	125			
Surr: 4-Bromofluorobenzene	0.63		0.6010		105	80	120			

Sample ID: 2009e34-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: FS-2	Batch ID: BS72111	RunNo: 72111								
Prep Date:	Analysis Date: 9/24/2020	SeqNo: 2528371			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.63	0.015	0.6010	0	106	76.3	120	10.6	20	
Toluene	0.66	0.030	0.6010	0	110	78.5	120	12.1	20	
Ethylbenzene	0.68	0.030	0.6010	0	113	78.1	124	14.1	20	
Xylenes, Total	2.0	0.060	1.803	0	112	79.3	125	13.2	20	
Surr: 4-Bromofluorobenzene	0.62		0.6010		104	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Mewbourne Oil Company Work Order Number: 2009E34 RcptNo: 1

Received By: Juan Rojas 9/24/2020 7:30:00 AM
Completed By: Juan Rojas 9/24/2020 7:35:11 AM
Reviewed By: JO 9/24/20

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: JR 9/24/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [checked] No [] NA [checked] JR 9/24/20

Person Notified: SKIP Date: 9/24/20
By Whom: JR Via: [] eMail [checked] Phone [] Fax [] In Person
Regarding: two soils with different dates
Client Instructions: Go by the what's on the soils.

16. Additional remarks: JR 9/24/20

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 3.1, Good, [], [], []

Chain-of-Custody Record

Client: Mewbourne *Bill to Mewbourne*
 Mailing Address: *Mewbourne*

Turn-Around Time: *Same day*
 Standard Rush
 Project Name: Aries 19 IL Federal Com #1H
 Project #: 12682



HALL ENVIRONMENTAL ANALYSIS LABORATORY
 www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Phone #: _____
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance NELAC Other _____
 EDD (Type) _____

Project Manager: Lance Crenshaw
 Sampler: Eric Mojica
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): *3.1-0=3.1*

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	C
<i>9-22</i>	<i>9/24/10</i>	<i>S</i>	<i>FS-1</i>	<i>Jar</i>	<i>ice</i>	<i>-001</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9-22</i>		<i>S</i>	<i>FS-2</i>	<i>Jar</i>	<i>ice</i>	<i>-002</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9-22</i>		<i>S</i>	<i>FS-3</i>	<i>Jar</i>	<i>ice</i>	<i>-003</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9-22</i>		<i>S</i>	<i>FS-4</i>	<i>Jar</i>	<i>ice</i>	<i>-004</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9-22</i>		<i>S</i>	<i>FS-5</i>	<i>Jar</i>	<i>ice</i>	<i>-005</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9-22</i>		<i>S</i>	<i>NW-1</i>	<i>Jar</i>	<i>ice</i>	<i>-006</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9-22</i>		<i>S</i>	<i>NW-2</i>	<i>Jar</i>	<i>ice</i>	<i>-007</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9-22</i>	<i>12:44/10</i>	<i>S</i>	<i>EW-1</i>	<i>Jar</i>	<i>ice</i>	<i>-008</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9-22</i>		<i>S</i>	<i>EW-2</i>	<i>Jar</i>	<i>ice</i>	<i>-009</i>	<i>X</i>	<i>X</i>	<i>X</i>
<i>9/22</i>		<i>S</i>	<i>FS-6</i>			<i>-010</i>	<i>X</i>	<i>X</i>	<i>X</i>

Relinquished by: *Samuel*
 Date: *9-23* Time: *9:00 am*

Received by: *Alumming* Via: _____ Date: *9/24/10* Time: *1:30*
 Received by: *Alumming* Via: _____ Date: _____ Time: _____

Remarks: Email results to: pm@etechnv.com



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

September 29, 2020

Robbie Runnels
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
TEL: (575) 393-5905
FAX:

RE: Aries 19 IL Federal Com 1H

OrderNo.: 2009F24

Dear Robbie Runnels:

Hall Environmental Analysis Laboratory received 10 sample(s) on 9/25/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-7

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-001

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/25/2020 2:29:11 PM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	9/25/2020 1:52:16 PM	55441
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/25/2020 1:52:16 PM	55441
Surr: DNOP	89.1	30.4-154		%Rec	1	9/25/2020 1:52:16 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	9/25/2020 1:10:03 PM	R72151
Surr: BFB	85.7	75.3-105		%Rec	1	9/25/2020 1:10:03 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.017		mg/Kg	1	9/25/2020 1:10:03 PM	BS72151
Toluene	ND	0.034		mg/Kg	1	9/25/2020 1:10:03 PM	BS72151
Ethylbenzene	ND	0.034		mg/Kg	1	9/25/2020 1:10:03 PM	BS72151
Xylenes, Total	ND	0.068		mg/Kg	1	9/25/2020 1:10:03 PM	BS72151
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	9/25/2020 1:10:03 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-8

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-002

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	8600	600		mg/Kg	200	9/29/2020 12:03:37 AM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/25/2020 2:02:04 PM	55441
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/25/2020 2:02:04 PM	55441
Surr: DNOP	85.5	30.4-154		%Rec	1	9/25/2020 2:02:04 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/25/2020 1:33:35 PM	R72151
Surr: BFB	89.7	75.3-105		%Rec	1	9/25/2020 1:33:35 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.022		mg/Kg	1	9/25/2020 1:33:35 PM	BS72151
Toluene	ND	0.043		mg/Kg	1	9/25/2020 1:33:35 PM	BS72151
Ethylbenzene	ND	0.043		mg/Kg	1	9/25/2020 1:33:35 PM	BS72151
Xylenes, Total	ND	0.086		mg/Kg	1	9/25/2020 1:33:35 PM	BS72151
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/25/2020 1:33:35 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-9

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-003

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/25/2020 2:53:52 PM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/25/2020 2:12:03 PM	55441
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/25/2020 2:12:03 PM	55441
Surr: DNOP	85.4	30.4-154		%Rec	1	9/25/2020 2:12:03 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	9/25/2020 1:57:04 PM	R72151
Surr: BFB	90.8	75.3-105		%Rec	1	9/25/2020 1:57:04 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.018		mg/Kg	1	9/25/2020 1:57:04 PM	BS72151
Toluene	ND	0.035		mg/Kg	1	9/25/2020 1:57:04 PM	BS72151
Ethylbenzene	ND	0.035		mg/Kg	1	9/25/2020 1:57:04 PM	BS72151
Xylenes, Total	ND	0.070		mg/Kg	1	9/25/2020 1:57:04 PM	BS72151
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	9/25/2020 1:57:04 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-10

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-004

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	2100	150		mg/Kg	50	9/29/2020 12:16:02 AM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/25/2020 2:22:02 PM	55441
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/25/2020 2:22:02 PM	55441
Surr: DNOP	81.7	30.4-154		%Rec	1	9/25/2020 2:22:02 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/25/2020 2:20:30 PM	R72151
Surr: BFB	90.3	75.3-105		%Rec	1	9/25/2020 2:20:30 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.020		mg/Kg	1	9/25/2020 2:20:30 PM	BS72151
Toluene	ND	0.040		mg/Kg	1	9/25/2020 2:20:30 PM	BS72151
Ethylbenzene	ND	0.040		mg/Kg	1	9/25/2020 2:20:30 PM	BS72151
Xylenes, Total	ND	0.080		mg/Kg	1	9/25/2020 2:20:30 PM	BS72151
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	9/25/2020 2:20:30 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-11

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-005

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/25/2020 3:18:35 PM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/25/2020 2:31:59 PM	55441
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/25/2020 2:31:59 PM	55441
Surr: DNOP	85.9	30.4-154		%Rec	1	9/25/2020 2:31:59 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	9/25/2020 2:44:03 PM	R72151
Surr: BFB	91.0	75.3-105		%Rec	1	9/25/2020 2:44:03 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.022		mg/Kg	1	9/25/2020 2:44:03 PM	BS72151
Toluene	ND	0.045		mg/Kg	1	9/25/2020 2:44:03 PM	BS72151
Ethylbenzene	ND	0.045		mg/Kg	1	9/25/2020 2:44:03 PM	BS72151
Xylenes, Total	ND	0.089		mg/Kg	1	9/25/2020 2:44:03 PM	BS72151
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	9/25/2020 2:44:03 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW-3

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-006

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/25/2020 3:30:55 PM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/25/2020 2:41:56 PM	55441
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/25/2020 2:41:56 PM	55441
Surr: DNOP	81.8	30.4-154		%Rec	1	9/25/2020 2:41:56 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	9/25/2020 3:07:38 PM	R72151
Surr: BFB	88.9	75.3-105		%Rec	1	9/25/2020 3:07:38 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.015		mg/Kg	1	9/25/2020 3:07:38 PM	BS72151
Toluene	ND	0.030		mg/Kg	1	9/25/2020 3:07:38 PM	BS72151
Ethylbenzene	ND	0.030		mg/Kg	1	9/25/2020 3:07:38 PM	BS72151
Xylenes, Total	ND	0.061		mg/Kg	1	9/25/2020 3:07:38 PM	BS72151
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/25/2020 3:07:38 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW-4

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-007

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/25/2020 3:43:15 PM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/25/2020 2:51:52 PM	55441
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/25/2020 2:51:52 PM	55441
Surr: DNOP	84.6	30.4-154		%Rec	1	9/25/2020 2:51:52 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	9/25/2020 3:31:04 PM	R72151
Surr: BFB	85.5	75.3-105		%Rec	1	9/25/2020 3:31:04 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.017		mg/Kg	1	9/25/2020 3:31:04 PM	BS72151
Toluene	ND	0.035		mg/Kg	1	9/25/2020 3:31:04 PM	BS72151
Ethylbenzene	ND	0.035		mg/Kg	1	9/25/2020 3:31:04 PM	BS72151
Xylenes, Total	ND	0.069		mg/Kg	1	9/25/2020 3:31:04 PM	BS72151
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/25/2020 3:31:04 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW-5

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-008

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/25/2020 4:20:16 PM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/25/2020 1:24:42 PM	55441
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/25/2020 1:24:42 PM	55441
Surr: DNOP	95.4	30.4-154		%Rec	1	9/25/2020 1:24:42 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/25/2020 3:54:33 PM	R72151
Surr: BFB	90.6	75.3-105		%Rec	1	9/25/2020 3:54:33 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.018		mg/Kg	1	9/25/2020 3:54:33 PM	BS72151
Toluene	ND	0.036		mg/Kg	1	9/25/2020 3:54:33 PM	BS72151
Ethylbenzene	ND	0.036		mg/Kg	1	9/25/2020 3:54:33 PM	BS72151
Xylenes, Total	ND	0.073		mg/Kg	1	9/25/2020 3:54:33 PM	BS72151
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	1	9/25/2020 3:54:33 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW-1

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-009

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/25/2020 4:32:37 PM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/25/2020 1:48:33 PM	55441
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/25/2020 1:48:33 PM	55441
Surr: DNOP	98.7	30.4-154		%Rec	1	9/25/2020 1:48:33 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	9/25/2020 4:18:02 PM	R72151
Surr: BFB	90.0	75.3-105		%Rec	1	9/25/2020 4:18:02 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.019		mg/Kg	1	9/25/2020 4:18:02 PM	BS72151
Toluene	ND	0.039		mg/Kg	1	9/25/2020 4:18:02 PM	BS72151
Ethylbenzene	ND	0.039		mg/Kg	1	9/25/2020 4:18:02 PM	BS72151
Xylenes, Total	ND	0.078		mg/Kg	1	9/25/2020 4:18:02 PM	BS72151
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	9/25/2020 4:18:02 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009F24**

Date Reported: **9/29/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW-2

Project: Aries 19 IL Federal Com 1H

Collection Date: 9/23/2020

Lab ID: 2009F24-010

Matrix: SOIL

Received Date: 9/25/2020 12:18:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/25/2020 4:44:57 PM	55449
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	9/25/2020 2:12:33 PM	55441
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/25/2020 2:12:33 PM	55441
Surr: DNOP	102	30.4-154		%Rec	1	9/25/2020 2:12:33 PM	55441
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/25/2020 5:04:56 PM	R72151
Surr: BFB	84.4	75.3-105		%Rec	1	9/25/2020 5:04:56 PM	R72151
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.018		mg/Kg	1	9/25/2020 5:04:56 PM	BS72151
Toluene	ND	0.036		mg/Kg	1	9/25/2020 5:04:56 PM	BS72151
Ethylbenzene	ND	0.036		mg/Kg	1	9/25/2020 5:04:56 PM	BS72151
Xylenes, Total	ND	0.072		mg/Kg	1	9/25/2020 5:04:56 PM	BS72151
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/25/2020 5:04:56 PM	BS72151

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009F24

29-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: MB-55449	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 55449	RunNo: 72156								
Prep Date: 9/25/2020	Analysis Date: 9/25/2020	SeqNo: 2530492	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-55449	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 55449	RunNo: 72156								
Prep Date: 9/25/2020	Analysis Date: 9/25/2020	SeqNo: 2530493	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009F24

29-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: MB-55441	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55441	RunNo: 72149								
Prep Date: 9/25/2020	Analysis Date: 9/25/2020	SeqNo: 2529234	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.7	30.4	154			

Sample ID: LCS-55441	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55441	RunNo: 72149								
Prep Date: 9/25/2020	Analysis Date: 9/25/2020	SeqNo: 2529259	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.3	70	130			
Surr: DNOP	3.9		5.000		78.5	30.4	154			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009F24

29-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: 2.5ug gro lcs	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: R72151		RunNo: 72151							
Prep Date:	Analysis Date: 9/25/2020		SeqNo: 2529243		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.3	72.5	106			
Surr: BFB	1000		1000		105	75.3	105			

Sample ID: lcs-55362	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 55362		RunNo: 72151							
Prep Date: 9/22/2020	Analysis Date: 9/25/2020		SeqNo: 2529247		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	75.3	105			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: R72151		RunNo: 72151							
Prep Date:	Analysis Date: 9/25/2020		SeqNo: 2529248		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	75.3	105			

Sample ID: mb-55362	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 55362		RunNo: 72151							
Prep Date: 9/22/2020	Analysis Date: 9/25/2020		SeqNo: 2529249		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		87.8	75.3	105			

Sample ID: mb-55383	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 55383		RunNo: 72151							
Prep Date: 9/23/2020	Analysis Date: 9/26/2020		SeqNo: 2530060		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.2	75.3	105			

Sample ID: lcs-55383	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 55383		RunNo: 72151							
Prep Date: 9/23/2020	Analysis Date: 9/26/2020		SeqNo: 2530061		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	75.3	105			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009F24

29-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: 100NG BTEX LCS	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: BS72151	RunNo: 72151								
Prep Date:	Analysis Date: 9/25/2020	SeqNo: 2529252	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	99.8	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID: LCS-55362	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 55362	RunNo: 72151								
Prep Date: 9/22/2020	Analysis Date: 9/25/2020	SeqNo: 2529256	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: BS72151	RunNo: 72151								
Prep Date:	Analysis Date: 9/25/2020	SeqNo: 2529257	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID: mb-55362	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 55362	RunNo: 72151								
Prep Date: 9/22/2020	Analysis Date: 9/25/2020	SeqNo: 2529258	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: 2009F24-001A MS	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: FS-7	Batch ID: BS72151	RunNo: 72151								
Prep Date:	Analysis Date: 9/25/2020	SeqNo: 2530031	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.017	0.6793	0	95.9	76.3	120			
Toluene	0.69	0.034	0.6793	0	101	78.5	120			
Ethylbenzene	0.69	0.034	0.6793	0	102	78.1	124			
Xylenes, Total	2.1	0.068	2.038	0	103	79.3	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009F24

29-Sep-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Federal Com 1H

Sample ID: 2009F24-001A MS	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: FS-7	Batch ID: BS72151	RunNo: 72151								
Prep Date:	Analysis Date: 9/25/2020	SeqNo: 2530031	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.71		0.6793		105	80	120			

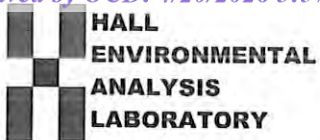
Sample ID: 2009F24-001A MSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: FS-7	Batch ID: BS72151	RunNo: 72151								
Prep Date:	Analysis Date: 9/25/2020	SeqNo: 2530032	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.66	0.017	0.6793	0	97.1	76.3	120	1.24	20	
Toluene	0.69	0.034	0.6793	0	101	78.5	120	0.0493	20	
Ethylbenzene	0.70	0.034	0.6793	0	104	78.1	124	1.46	20	
Xylenes, Total	2.1	0.068	2.038	0	104	79.3	125	0.639	20	
Surr: 4-Bromofluorobenzene	0.73		0.6793		108	80	120	0	0	

Sample ID: mb-55383	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 55383	RunNo: 72151								
Prep Date: 9/23/2020	Analysis Date: 9/26/2020	SeqNo: 2530090	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID: LCS-55383	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 55383	RunNo: 72151								
Prep Date: 9/23/2020	Analysis Date: 9/26/2020	SeqNo: 2530091	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Mewbourne Oil Company Work Order Number: 2009F24 RcptNo: 1

Received By: Juan Rojas 9/25/2020 12:18:00 PM
Completed By: Juan Rojas 9/25/2020 12:19:56 PM
Reviewed By: [Signatures]

Chain of Custody

1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH:
Adjusted?
Checked by: JR 9/25/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: [] Date []
By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []
Regarding: []
Client Instructions: []

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.0, Good, [], [], [], []

Chain-of-Custody Record

Client: Newbourn

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time:

Standard 24 hours

Standard

Rush

Project Name

Aries 19 IL Federal Com #1H

AR

Project #:

12682

Project Manager:

Lance Crenshaw

Sampler:

On Ice: Yes No

of Coolers:

1

Date

Container Type and #

Preservative Type

HEAL No. 700417-1

BTEX / MTBE / TMB's (8021)

TPH:8015D(GRO / DRO / MRO)

C

9-23 FS-7 Jar ice -001 X X X

9-23 FS-8 Jar ice -002 X X X

9-23 FS-9 Jar ice -003 X X X

9-23 FS-10 Jar ice -004 X X X

9-23 FS-11 Jar ice -005 X X X

9-23 NW-3 Jar ice -006 X X X

9-23 NW-4 Jar ice -007 X X X

9-23 NW-5 Jar ice -008 X X X

9-23 WW-1 Jar ice -009 X X X

9-23 WW-2 Jar ice -010 X X X

Relinquished by:

Time: 9:30am

Steve Cook

Received by:

Via: *Summary*

Date: 9/19/00 Time: 1245

Relinquished by:

Time: 9:00am

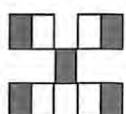
Summary

Received by:

Via: *Summary*

Date: 9/19/00 Time: 1245

Remarks: email results to: pm@etechnv.com



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

October 01, 2020

Robbie Runnels
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
TEL: (575) 393-5905
FAX:

RE: Aries 19 IL Fed Com 1H Tank Battery

OrderNo.: 2009H04

Dear Robbie Runnels:

Hall Environmental Analysis Laboratory received 15 sample(s) on 9/29/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW-A

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-001

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	9/29/2020 11:15:56 AM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/29/2020 9:15:40 AM	55507
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/29/2020 9:15:40 AM	55507
Surr: DNOP	93.5	30.4-154		%Rec	1	9/29/2020 9:15:40 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/29/2020 10:02:02 AM	G72230
Surr: BFB	87.4	75.3-105		%Rec	1	9/29/2020 10:02:02 AM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	9/29/2020 10:02:02 AM	B72230
Toluene	ND	0.036		mg/Kg	1	9/29/2020 10:02:02 AM	B72230
Ethylbenzene	ND	0.036		mg/Kg	1	9/29/2020 10:02:02 AM	B72230
Xylenes, Total	ND	0.071		mg/Kg	1	9/29/2020 10:02:02 AM	B72230
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/29/2020 10:02:02 AM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW-A

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-002

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	9/29/2020 11:28:21 AM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/29/2020 9:39:07 AM	55507
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/29/2020 9:39:07 AM	55507
Surr: DNOP	93.5	30.4-154		%Rec	1	9/29/2020 9:39:07 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/29/2020 10:25:31 AM	G72230
Surr: BFB	88.2	75.3-105		%Rec	1	9/29/2020 10:25:31 AM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	9/29/2020 10:25:31 AM	B72230
Toluene	ND	0.036		mg/Kg	1	9/29/2020 10:25:31 AM	B72230
Ethylbenzene	ND	0.036		mg/Kg	1	9/29/2020 10:25:31 AM	B72230
Xylenes, Total	ND	0.073		mg/Kg	1	9/29/2020 10:25:31 AM	B72230
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	9/29/2020 10:25:31 AM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW-D

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-003

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	9/29/2020 11:40:45 AM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/29/2020 10:02:45 AM	55507
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/29/2020 10:02:45 AM	55507
Surr: DNOP	94.0	30.4-154		%Rec	1	9/29/2020 10:02:45 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	9/29/2020 10:49:06 AM	G72230
Surr: BFB	90.4	75.3-105		%Rec	1	9/29/2020 10:49:06 AM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	9/29/2020 10:49:06 AM	B72230
Toluene	ND	0.037		mg/Kg	1	9/29/2020 10:49:06 AM	B72230
Ethylbenzene	ND	0.037		mg/Kg	1	9/29/2020 10:49:06 AM	B72230
Xylenes, Total	ND	0.074		mg/Kg	1	9/29/2020 10:49:06 AM	B72230
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/29/2020 10:49:06 AM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW-C

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-004

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	230	60		mg/Kg	20	9/29/2020 11:53:10 AM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	9/29/2020 10:26:20 AM	55507
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/29/2020 10:26:20 AM	55507
Surr: DNOP	93.0	30.4-154		%Rec	1	9/29/2020 10:26:20 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/29/2020 11:12:39 AM	G72230
Surr: BFB	96.3	75.3-105		%Rec	1	9/29/2020 11:12:39 AM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	9/29/2020 11:12:39 AM	B72230
Toluene	ND	0.043		mg/Kg	1	9/29/2020 11:12:39 AM	B72230
Ethylbenzene	ND	0.043		mg/Kg	1	9/29/2020 11:12:39 AM	B72230
Xylenes, Total	ND	0.085		mg/Kg	1	9/29/2020 11:12:39 AM	B72230
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/29/2020 11:12:39 AM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW-B

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-005

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	9/29/2020 12:05:34 PM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	9/29/2020 10:15:55 AM	55507
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	9/29/2020 10:15:55 AM	55507
Surr: DNOP	99.3	30.4-154		%Rec	1	9/29/2020 10:15:55 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/29/2020 11:36:19 AM	G72230
Surr: BFB	88.6	75.3-105		%Rec	1	9/29/2020 11:36:19 AM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	9/29/2020 11:36:19 AM	B72230
Toluene	ND	0.041		mg/Kg	1	9/29/2020 11:36:19 AM	B72230
Ethylbenzene	ND	0.041		mg/Kg	1	9/29/2020 11:36:19 AM	B72230
Xylenes, Total	ND	0.081		mg/Kg	1	9/29/2020 11:36:19 AM	B72230
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/29/2020 11:36:19 AM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW-B

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-006

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	9/29/2020 12:17:58 PM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/29/2020 10:25:24 AM	55507
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/29/2020 10:25:24 AM	55507
Surr: DNOP	95.5	30.4-154		%Rec	1	9/29/2020 10:25:24 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	9/29/2020 12:00:02 PM	G72230
Surr: BFB	85.8	75.3-105		%Rec	1	9/29/2020 12:00:02 PM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.016		mg/Kg	1	9/29/2020 12:00:02 PM	B72230
Toluene	ND	0.032		mg/Kg	1	9/29/2020 12:00:02 PM	B72230
Ethylbenzene	ND	0.032		mg/Kg	1	9/29/2020 12:00:02 PM	B72230
Xylenes, Total	ND	0.065		mg/Kg	1	9/29/2020 12:00:02 PM	B72230
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	9/29/2020 12:00:02 PM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW-A

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-007

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	61		mg/Kg	20	9/29/2020 12:30:23 PM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/29/2020 10:34:53 AM	55507
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/29/2020 10:34:53 AM	55507
Surr: DNOP	97.5	30.4-154		%Rec	1	9/29/2020 10:34:53 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	9/29/2020 12:23:47 PM	G72230
Surr: BFB	90.9	75.3-105		%Rec	1	9/29/2020 12:23:47 PM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	9/29/2020 12:23:47 PM	B72230
Toluene	ND	0.035		mg/Kg	1	9/29/2020 12:23:47 PM	B72230
Ethylbenzene	ND	0.035		mg/Kg	1	9/29/2020 12:23:47 PM	B72230
Xylenes, Total	ND	0.070		mg/Kg	1	9/29/2020 12:23:47 PM	B72230
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	9/29/2020 12:23:47 PM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW-C

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-008

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	9/29/2020 12:42:48 PM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/29/2020 10:44:24 AM	55507
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/29/2020 10:44:24 AM	55507
Surr: DNOP	94.2	30.4-154		%Rec	1	9/29/2020 10:44:24 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/29/2020 12:47:24 PM	G72230
Surr: BFB	90.0	75.3-105		%Rec	1	9/29/2020 12:47:24 PM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	9/29/2020 12:47:24 PM	B72230
Toluene	ND	0.042		mg/Kg	1	9/29/2020 12:47:24 PM	B72230
Ethylbenzene	ND	0.042		mg/Kg	1	9/29/2020 12:47:24 PM	B72230
Xylenes, Total	ND	0.083		mg/Kg	1	9/29/2020 12:47:24 PM	B72230
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/29/2020 12:47:24 PM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SW-A

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-009

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	9/29/2020 1:20:02 PM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/29/2020 10:53:57 AM	55507
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/29/2020 10:53:57 AM	55507
Surr: DNOP	84.3	30.4-154		%Rec	1	9/29/2020 10:53:57 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/29/2020 1:34:24 PM	G72230
Surr: BFB	90.6	75.3-105		%Rec	1	9/29/2020 1:34:24 PM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	9/29/2020 1:34:24 PM	B72230
Toluene	ND	0.038		mg/Kg	1	9/29/2020 1:34:24 PM	B72230
Ethylbenzene	ND	0.038		mg/Kg	1	9/29/2020 1:34:24 PM	B72230
Xylenes, Total	ND	0.075		mg/Kg	1	9/29/2020 1:34:24 PM	B72230
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/29/2020 1:34:24 PM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW-D

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-010

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/29/2020 12:58:48 PM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	9/29/2020 11:03:30 AM	55507
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	9/29/2020 11:03:30 AM	55507
Surr: DNOP	86.4	30.4-154		%Rec	1	9/29/2020 11:03:30 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	9/29/2020 1:57:55 PM	G72230
Surr: BFB	88.6	75.3-105		%Rec	1	9/29/2020 1:57:55 PM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	9/29/2020 1:57:55 PM	B72230
Toluene	ND	0.039		mg/Kg	1	9/29/2020 1:57:55 PM	B72230
Ethylbenzene	ND	0.039		mg/Kg	1	9/29/2020 1:57:55 PM	B72230
Xylenes, Total	ND	0.078		mg/Kg	1	9/29/2020 1:57:55 PM	B72230
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	9/29/2020 1:57:55 PM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-A@3'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-011

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	9/29/2020 1:11:08 PM	55518
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/29/2020 11:13:04 AM	55507
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/29/2020 11:13:04 AM	55507
Surr: DNOP	85.5	30.4-154		%Rec	1	9/29/2020 11:13:04 AM	55507
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/29/2020 2:21:33 PM	G72230
Surr: BFB	84.2	75.3-105		%Rec	1	9/29/2020 2:21:33 PM	G72230
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	9/29/2020 2:21:33 PM	B72230
Toluene	ND	0.036		mg/Kg	1	9/29/2020 2:21:33 PM	B72230
Ethylbenzene	ND	0.036		mg/Kg	1	9/29/2020 2:21:33 PM	B72230
Xylenes, Total	ND	0.072		mg/Kg	1	9/29/2020 2:21:33 PM	B72230
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	9/29/2020 2:21:33 PM	B72230

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-E@2'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-012

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	88	60		mg/Kg	20	9/29/2020 1:23:29 PM	55518
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/29/2020 1:20:18 PM	G72234
Surr: BFB	99.9	70-130		%Rec	1	9/29/2020 1:20:18 PM	G72234
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	13	8.6		mg/Kg	1	9/29/2020 11:22:40 AM	55507
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	9/29/2020 11:22:40 AM	55507
Surr: DNOP	91.9	30.4-154		%Rec	1	9/29/2020 11:22:40 AM	55507
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.020		mg/Kg	1	9/29/2020 1:20:18 PM	R72234
Toluene	ND	0.040		mg/Kg	1	9/29/2020 1:20:18 PM	R72234
Ethylbenzene	ND	0.040		mg/Kg	1	9/29/2020 1:20:18 PM	R72234
Xylenes, Total	ND	0.080		mg/Kg	1	9/29/2020 1:20:18 PM	R72234
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%Rec	1	9/29/2020 1:20:18 PM	R72234
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	9/29/2020 1:20:18 PM	R72234
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/29/2020 1:20:18 PM	R72234
Surr: Toluene-d8	106	70-130		%Rec	1	9/29/2020 1:20:18 PM	R72234

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-B@3'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-013

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	63	60		mg/Kg	20	9/29/2020 1:35:50 PM	55518
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.7		mg/Kg	1	9/29/2020 1:48:45 PM	G72234
Surr: BFB	97.7	70-130		%Rec	1	9/29/2020 1:48:45 PM	G72234
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/29/2020 11:32:18 AM	55507
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/29/2020 11:32:18 AM	55507
Surr: DNOP	96.6	30.4-154		%Rec	1	9/29/2020 11:32:18 AM	55507
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.028		mg/Kg	1	9/29/2020 1:48:45 PM	R72234
Toluene	ND	0.057		mg/Kg	1	9/29/2020 1:48:45 PM	R72234
Ethylbenzene	ND	0.057		mg/Kg	1	9/29/2020 1:48:45 PM	R72234
Xylenes, Total	ND	0.11		mg/Kg	1	9/29/2020 1:48:45 PM	R72234
Surr: 1,2-Dichloroethane-d4	88.6	70-130		%Rec	1	9/29/2020 1:48:45 PM	R72234
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	9/29/2020 1:48:45 PM	R72234
Surr: Dibromofluoromethane	104	70-130		%Rec	1	9/29/2020 1:48:45 PM	R72234
Surr: Toluene-d8	103	70-130		%Rec	1	9/29/2020 1:48:45 PM	R72234

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-C@3'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-014

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	59		mg/Kg	20	9/29/2020 1:48:12 PM	55518
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/29/2020 2:17:09 PM	G72234
Surr: BFB	102	70-130		%Rec	1	9/29/2020 2:17:09 PM	G72234
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/29/2020 11:41:56 AM	55507
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/29/2020 11:41:56 AM	55507
Surr: DNOP	95.6	30.4-154		%Rec	1	9/29/2020 11:41:56 AM	55507
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	9/29/2020 2:17:09 PM	R72234
Toluene	ND	0.048		mg/Kg	1	9/29/2020 2:17:09 PM	R72234
Ethylbenzene	ND	0.048		mg/Kg	1	9/29/2020 2:17:09 PM	R72234
Xylenes, Total	ND	0.097		mg/Kg	1	9/29/2020 2:17:09 PM	R72234
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%Rec	1	9/29/2020 2:17:09 PM	R72234
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	9/29/2020 2:17:09 PM	R72234
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/29/2020 2:17:09 PM	R72234
Surr: Toluene-d8	101	70-130		%Rec	1	9/29/2020 2:17:09 PM	R72234

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order **2009H04**

Date Reported: **10/1/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FS-D@4'

Project: Aries 19 IL Fed Com 1H Tank Battery

Collection Date: 9/25/2020

Lab ID: 2009H04-015

Matrix: SOIL

Received Date: 9/29/2020 7:33:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	130	60		mg/Kg	20	9/29/2020 2:00:32 PM	55518
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/29/2020 2:45:52 PM	G72234
Surr: BFB	106	70-130		%Rec	1	9/29/2020 2:45:52 PM	G72234
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/29/2020 11:51:36 AM	55507
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/29/2020 11:51:36 AM	55507
Surr: DNOP	98.5	30.4-154		%Rec	1	9/29/2020 11:51:36 AM	55507
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.020		mg/Kg	1	9/29/2020 2:45:52 PM	R72234
Toluene	ND	0.040		mg/Kg	1	9/29/2020 2:45:52 PM	R72234
Ethylbenzene	ND	0.040		mg/Kg	1	9/29/2020 2:45:52 PM	R72234
Xylenes, Total	ND	0.079		mg/Kg	1	9/29/2020 2:45:52 PM	R72234
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%Rec	1	9/29/2020 2:45:52 PM	R72234
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	1	9/29/2020 2:45:52 PM	R72234
Surr: Dibromofluoromethane	104	70-130		%Rec	1	9/29/2020 2:45:52 PM	R72234
Surr: Toluene-d8	109	70-130		%Rec	1	9/29/2020 2:45:52 PM	R72234

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009H04

01-Oct-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: MB-55518	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 55518	RunNo: 72231								
Prep Date: 9/29/2020	Analysis Date: 9/29/2020	SeqNo: 2534523	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-55518	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 55518	RunNo: 72231								
Prep Date: 9/29/2020	Analysis Date: 9/29/2020	SeqNo: 2534524	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Sample ID: MB-55518	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 55518	RunNo: 72232								
Prep Date: 9/29/2020	Analysis Date: 9/29/2020	SeqNo: 2534647	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-55518	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 55518	RunNo: 72232								
Prep Date: 9/29/2020	Analysis Date: 9/29/2020	SeqNo: 2534648	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.0	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009H04

01-Oct-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: 2009H04-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: WW-A	Batch ID: 55507	RunNo: 72218								
Prep Date: 9/29/2020	Analysis Date: 9/29/2020	SeqNo: 2533119	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.9	49.65	0	96.0	15	184			
Surr: DNOP	4.5		4.965		90.4	30.4	154			

Sample ID: 2009H04-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: WW-A	Batch ID: 55507	RunNo: 72218								
Prep Date: 9/29/2020	Analysis Date: 9/29/2020	SeqNo: 2533120	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.5	47.35	0	97.2	15	184	3.55	23.9	
Surr: DNOP	4.2		4.735		89.6	30.4	154	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009H04

01-Oct-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: G72230	RunNo: 72230								
Prep Date:	Analysis Date: 9/29/2020	SeqNo: 2533677	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.3	75.3	105			

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: G72230	RunNo: 72230								
Prep Date:	Analysis Date: 9/29/2020	SeqNo: 2533678	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.0	72.5	106			
Surr: BFB	1100		1000		107	75.3	105			S

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009H04

01-Oct-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: mb1	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: B72230		RunNo: 72230							
Prep Date:	Analysis Date: 9/29/2020		SeqNo: 2533683		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: 100ng btex lcs	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: B72230		RunNo: 72230							
Prep Date:	Analysis Date: 9/29/2020		SeqNo: 2533684		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.7	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009H04

01-Oct-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: LCSS	Batch ID: R72234		RunNo: 72234							
Prep Date:	Analysis Date: 9/29/2020		SeqNo: 2532971		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.3	70	130			
Toluene	0.98	0.050	1.000	0	98.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.3	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID: mb1	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: PBS	Batch ID: R72234		RunNo: 72234							
Prep Date:	Analysis Date: 9/29/2020		SeqNo: 2532972		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.5	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.3	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.53		0.5000		106	70	130			

Sample ID: 2009h04-012ams	SampType: MS		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: FS-E@2'	Batch ID: R72234		RunNo: 72234							
Prep Date:	Analysis Date: 9/29/2020		SeqNo: 2534642		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.68	0.020	0.8026	0	84.4	67.9	137			
Toluene	0.80	0.040	0.8026	0	99.2	70	130			
Surr: 1,2-Dichloroethane-d4	0.36		0.4013		90.2	70	130			
Surr: 4-Bromofluorobenzene	0.41		0.4013		102	70	130			
Surr: Dibromofluoromethane	0.39		0.4013		97.6	70	130			
Surr: Toluene-d8	0.40		0.4013		98.9	70	130			

Sample ID: 2009h04-012amsd	SampType: MSD		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: FS-E@2'	Batch ID: R72234		RunNo: 72234							
Prep Date:	Analysis Date: 9/29/2020		SeqNo: 2534643		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.020	0.8026	0	83.1	67.9	137	1.54	20	
Toluene	0.76	0.040	0.8026	0	95.2	70	130	4.09	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009H04

01-Oct-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: 2009h04-012amsd	SampType: MSD	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: FS-E@2'	Batch ID: R72234	RunNo: 72234								
Prep Date:	Analysis Date: 9/29/2020	SeqNo: 2534643			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.38		0.4013		95.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.41		0.4013		102	70	130	0	0	
Surr: Dibromofluoromethane	0.41		0.4013		103	70	130	0	0	
Surr: Toluene-d8	0.42		0.4013		104	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2009H04

01-Oct-20

Client: Mewbourne Oil Company
Project: Aries 19 IL Fed Com 1H Tank Battery

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: G72234	RunNo: 72234								
Prep Date:	Analysis Date: 9/29/2020	SeqNo: 2532978	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.3	70	130			
Surr: BFB	500		500.0		99.5	70	130			

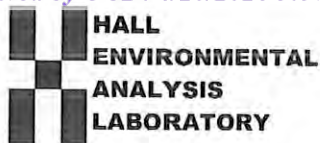
Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: G72234	RunNo: 72234								
Prep Date:	Analysis Date: 9/29/2020	SeqNo: 2532979	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	70	130			

Sample ID: 2009h04-013ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: FS-B@3'	Batch ID: R72234	RunNo: 72234								
Prep Date:	Analysis Date: 9/29/2020	SeqNo: 2534634	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	560		566.9		99.1	70	130			

Sample ID: 2009h04-013amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: FS-B@3'	Batch ID: R72234	RunNo: 72234								
Prep Date:	Analysis Date: 9/29/2020	SeqNo: 2534635	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	600		566.9		106	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Mewbourne Oil Company Work Order Number: 2009H04 RcptNo: 1

Received By: Juan Rojas 9/29/2020 7:33:00 AM
Completed By: Juan Rojas 9/29/2020 7:34:11 AM
Reviewed By: SPA 9.30.20

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by: JR 9/29/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: [] Date []
By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []
Regarding: []
Client Instructions: []

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.6, Good, [], [], []

Chain-of-Custody Record

Client: Mewbourne Oil Company

Mailing Address:

Project #: 12682
Aries 19 IL Fed Com #1H Tank Battery

Phone #:
email or Fax#:

Project Manager: Robbie Runnels

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

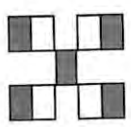
EDD (Type)

Sampler: Miguel Ramirez

On Ice: Yes No

of Coolers: 1
Cooler Temp (including CF): 0.6-0.6

Turn-Around Time:
Standard X Rush - ASAP
Project Name:



HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	TPH:8015D(GRO / DRO / MRO)	BTEX / MTBE / TMB's (8021)	C		
9/25/20		Soil	WW-A	Jar - 1	Ice/Cool	-061	X	X	X		
9/25/20		Soil	NW-A	Jar - 1	Ice/Cool	-002	X	X	X		
9/25/20		Soil	EW-D	Jar - 1	Ice/Cool	-003	X	X	X		
9/25/20		Soil	EW-C	Jar - 1	Ice/Cool	-004	X	X	X		
9/25/20		Soil	WW-B	Jar - 1	Ice/Cool	-005	X	X	X		
9/25/20		Soil	EW-B	Jar - 1	Ice/Cool	-006	X	X	X		
9/25/20		Soil	EW-A	Jar - 1	Ice/Cool	-007	X	X	X		
9/25/20		Soil	WW-C	Jar - 1	Ice/Cool	-008	X	X	X		
9/25/20		Soil	SW-A	Jar - 1	Ice/Cool	-009	X	X	X		
9/25/20		Soil	WW-D	Jar - 1	Ice/Cool	-010	X	X	X		
9/25/20		Soil	FS-A @ 3'	Jar - 1	Ice/Cool	-011	X	X	X		
9/25/20		Soil	FS-E @ 2'	Jar - 1	Ice/Cool	-012	X	X	X		
Date: 9/25/20		Time: 1530		Relinquished by: [Signature]		Received by: [Signature]		Date: 9/28/20		Time: 1530	
Date: 9/28/20		Time: 1900		Relinquished by: [Signature]		Received by: [Signature]		Date: 9/28/20		Time: 1530	

Remarks: Email results to: runnels@mewbourne.com and pm@etechnv.com.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

November 02, 2020

Lance Crenshaw
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
TEL: (575) 393-5905
FAX:

RE: Aries 19

OrderNo.: 2010B97

Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/27/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2010B97**

Date Reported: **11/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW1B

Project: Aries 19

Collection Date: 10/26/2020 12:00:00 PM

Lab ID: 2010B97-001

Matrix: SOIL

Received Date: 10/27/2020 11:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/28/2020 9:46:56 PM	56068
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/28/2020 9:46:56 PM	56068
Surr: DNOP	62.9	30.4-154		%Rec	1	10/28/2020 9:46:56 PM	56068
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/28/2020 6:07:08 PM	56063
Surr: BFB	95.6	75.3-105		%Rec	1	10/28/2020 6:07:08 PM	56063

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order **2010B97**

Date Reported: **11/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: F8-8 @ 4'

Project: Aries 19

Collection Date: 10/26/2020 12:00:00 PM

Lab ID: 2010B97-002

Matrix: SOIL

Received Date: 10/27/2020 11:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	3100	150		mg/Kg	50	10/30/2020 11:17:23 AM	56115

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2010B97

02-Nov-20

Client: Mewbourne Oil Company

Project: Aries 19

Sample ID: MB-56115	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56115	RunNo: 73026								
Prep Date: 10/29/2020	Analysis Date: 10/29/2020	SeqNo: 2567344	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56115	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56115	RunNo: 73026								
Prep Date: 10/29/2020	Analysis Date: 10/29/2020	SeqNo: 2567345	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2010B97

02-Nov-20

Client: Mewbourne Oil Company

Project: Aries 19

Sample ID: LCS-56068	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 56068		RunNo: 72977							
Prep Date: 10/27/2020	Analysis Date: 10/28/2020		SeqNo: 2565618		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	119	70	130			
Surr: DNOP	5.5		5.000		110	30.4	154			

Sample ID: MB-56068	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 56068		RunNo: 72977							
Prep Date: 10/27/2020	Analysis Date: 10/28/2020		SeqNo: 2565619		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	30.4	154			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2010B97

02-Nov-20

Client: Mewbourne Oil Company

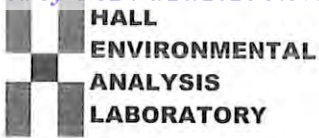
Project: Aries 19

Sample ID: mb-56063	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 56063		RunNo: 72986							
Prep Date: 10/27/2020	Analysis Date: 10/28/2020		SeqNo: 2565863		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.4	75.3	105			

Sample ID: lcs-56063	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 56063		RunNo: 72986							
Prep Date: 10/27/2020	Analysis Date: 10/28/2020		SeqNo: 2565864		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.9	72.5	106			
Surr: BFB	1000		1000		103	75.3	105			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Mewbourne Oil Company Work Order Number: 2010B97 RcptNo: 1

Received By: Sean Livingston 10/27/2020 11:40:00 AM
Completed By: Emily Mocho 10/27/2020 11:47:05 AM
Reviewed By: ENM 10/27/20

Signature: SCL

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0° C? Yes [] No [checked]
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: SCL 10/27/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: [] Date: []
By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []
Regarding: []
Client Instructions: []

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, -1.3, Good, Not Present, [], [], []

Chain-of-Custody Record



HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Turn-Around Time:
 Standard Rush
 Project Name: Aries 19
 Project #:

Project Manager:
Lance Clenshaw
 Sampler: Miguel Ramirez
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): -1.3 ± 0 = -1.3 °C

Container Type and #
Jar ice HEAL No. 2010897
Jar ice 001
002

Date	Time	Matrix	Sample Name	Relinquished by:	Relinquished Time:	Via:	Date	Time
10-26	12:00	Soil	EW1B	Lance Clenshaw	2:00	SGL Carrier	10/27/20	11:40
10-26	12:00	Soil	F8-8E4	[Signature]	1900			

Client: Newbourne
 Mailing Address:
 Phone #:
 email or Fax#:
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation: Az Compliance
 NELAC Other
 EDD (Type)

Analysis Request		Remarks:	
BTEX / MTBE / TMB's (8021)	X	Email results to pm@etechnv.com	
TPH:8015D(GRO / DRO / MRO)			
8081 Pesticides/8082 PCB's			
EDB (Method 504.1)			
PAHs by 8310 or 8270SIMS			
RCRA 8 Metals			
CF, BT, NO₃, NO₂, PO₄, SO₄	X		
8260 (VOA)			
8270 (Semi-VOA)			
Total Coliform (Present/Absent)			


If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix D

Photographic Log

Photographic Log

Photo Number: 1	
Photo Direction: West	
Photo Description: Initial release area	

Photo Number: 2	
Photo Direction: North	
Photo Description: Initial release area	

Photographic Log


Photo Number: 3	
Photo Direction: North	
Photo Description: Excavated area	

Photo Number: 4	
Photo Direction: East	
Photo Description: Excavated Area	

Photographic Log

Photo Number: 5	 <p>Oct 31, 2020 at 1:31:17 PM +32.727254, -104.006136</p>
Photo Direction: North	
Photo Description: Backfilled Excavation	

Photo Number: 6	 <p>Oct 31, 2020 at 1:33:26 PM +32.727254, -104.006136</p>
Photo Direction: East	
Photo Description: Backfilled Excavation	

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 577441

QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 577441
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nRM2017850577
Incident Name	NRM2017850577 ARIES 19 IL FEDERAL COM #1H @ 30-015-40497
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-40497] ARIES 19 IL FEDERAL COM #001H

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	ARIES 19 IL FEDERAL COM #1H
Date Release Discovered	06/24/2020
Surface Owner	Federal

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

Nature and Volume of Release	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Cause: Lightning Tank (Any) Crude Oil Released: 5 BBL Recovered: 0 BBL Lost: 5 BBL.
Produced Water Released (bbls) Details	Cause: Lightning Tank (Any) Produced Water Released: 5 BBL Recovered: 0 BBL Lost: 5 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.

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, Page 2

Action 577441

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 577441
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>

With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.

Initial Response

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

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

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

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

I hereby agree and sign off to the above statement	Name: Jeff Broom Title: Environmental Rep Email: jbroom@mewbourne.com Date: 04/20/2026
--	---

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

General Information
Phone: (505) 629-6116

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

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

QUESTIONS, Page 3

Action 577441

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 577441
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Between 1 and 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
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	32000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	3500
GRO+DRO (EPA SW-846 Method 8015M)	1500
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	09/21/2020
On what date will (or did) the final sampling or liner inspection occur	10/26/2020
On what date will (or was) the remediation complete(d)	10/26/2020
What is the estimated surface area (in square feet) that will be reclaimed	4400
What is the estimated volume (in cubic yards) that will be reclaimed	700
What is the estimated surface area (in square feet) that will be remediated	4400
What is the estimated volume (in cubic yards) that will be remediated	700

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.

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

General Information
Phone: (505) 629-6116

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

QUESTIONS, Page 4

Action 577441

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 577441
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

I hereby agree and sign off to the above statement	Name: Jeff Broom Title: Environmental Rep Email: jbroom@mewbourne.com Date: 04/20/2026
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 577441

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 577441
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 577441

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 577441
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	577437
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/26/2020
What was the (estimated) number of samples that were to be gathered	1
What was the sampling surface area in square feet	200

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
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	4400
What was the total volume (cubic yards) remediated	700
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	4400
What was the total volume (in cubic yards) reclaimed	700
Summarize any additional remediation activities not included by answers (above)	n/a

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

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

I hereby agree and sign off to the above statement	Name: Jeff Broom Title: Environmental Rep Email: jbroom@mewbourne.com Date: 04/20/2026
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QUESTIONS, Page 7

Action 577441

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
	Action Number: 577441
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 577441

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88240	OGRID: 14744
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CONDITIONS

Created By	Condition	Condition Date
nvez	None	6/16/2026