January 29, 2021

Mr. Mike Bratcher
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Closure Request
Pirate State BRY
Incident Number nRM2026530452
Lea County, New Mexico

Dear Mr. Bratcher:

Lucid Energy Group (Lucid) presents the following Closure Request detailing site assessment and soil sampling activities at the Pirate State BRY (Site) in Unit P, Section 16, Township 24 South, Range 34 East, in Lea County, New Mexico under surface ownership of the New Mexico State Land Office (NMSLO) (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil associated with a release of natural gas at the Site and subsequent excavation of impacted soil. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, Lucid is submitting this Closure Request. Lucid requests no further action that may contribute to compromising the safety of field personnel and integrity of sensitive subsurface pipelines during active operations. Listed below is a brief summation of the Site details in Table 1.

Table 1: Site and Release information	
Name	Pirate State BRY
Company	Lucid Energy Delaware
Incident Number	nRM2026530452
Location	32.835193°, -104.273068°
Estimated Date of Release	9/10/2020
Date reported to NMOCD	9/14/2020
Landowner	NMSLO
Reported to	NMOCD District I and NMSLO
Source of Release	Pipeline
Released Material	Natural Gas
Released Volume	>500MCF
Recovered Volume	0 MCF
Net Release	>500MCF
Nearest Waterway	Intermittent stream ~1 mile north
Depth to Groundwater	Estimated to be >100' from NMOSE data

Nearest Domestic Water source	Greater than 1000'
Lucid Activity Dates	9/11/20, 9/16/20, 10/8/20

1.0 RELEASE BACKGROUND

On September 10, 2020 Lucid operations personnel noticed natural gas vapors emanating from the surface along the Pirate State BRY line. The released gases were observed with an OGI FLIR GF320 camera during non-routine LDAR inspections of nearby pipeline connections. Due to the initial site assessment showing no staining and no released liquids at surface Lucid delayed reporting this release. Once pipeline repair activities had exposed the affected pipeline, soil staining was observed at depth along the pipeline. Lucid personnel reviewed SCADA measurement reports and total gas loss was determined to be greater than 500 MCF, requiring OCD notification. Lucid attentively reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on September 14, 2020 which was received and assigned Incident Number nRM2026530452 on September 21, 2020. The Form C-141 is provided as Appendix A.

2.0 SITE CHARACTERIZATION

Lucid characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data attained from the New Mexico Office of the State Engineer (NMOSE). Groundwater well, C-03943-POD1, is located approximately 0.46 miles south of the Site and lists groundwater depth at 431 feet bgs. The Site is greater than 300 feet from any continuously flowing or significant watercourse. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake. The Site is greater than 300 feet from an occupied residence, school, hospital, institution, or church. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located greater than 300 feet from a wetland. The Site is located in a low-potential karst area. The surface soil geology of the Site is comprised of the Pyote and Maljamar series sands and the Berino-Cacique series sand. The Pyote series is described as a yellowish-red, fine grained, deep, well drained, moderately permeable soil formed in sandy and loamy sediments. The Maljamar series is described as a yellowish-red, fine-grained, well drained moderately sandy to sandy soil somewhat reworked by wind with a deep petrocalcic horizon typically occurring around 4 to 5 feet bgs. The Berino series is described as a reddish-brown, very deep, well drained loamy sands that formed in mixed alluvium. Sub surface geology encountered at the Site is correlative to the Piedmont alluvium and the Ogallala formation. During excavation of the Site the Pyote and Berino series was encountered throughout at 0 to 3 feet bgs. Caliche was encountered from depths of approximately 3 to 6 feet bgs. The nearest identified groundwater wells and potential receptors identified during site characterization are displayed in Figure 1. NMOSE groundwater data for surrounding wells is presented in Appendix C.

3.0 CLOSURE CRITERIA

Referencing NMOSE groundwater data from the nearby well, C-03943-POD1, Lucid remediated the Site according to the closure criteria relevant to groundwater depth of >100 feet bgs, listed in NMAC 19.15.29 Table 1 Closure Criteria (Closure Criteria). Based on the results of the site characterization, the following Closure Criteria apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

4.0 INITIAL RESPONSE

During the response to the release on September 10, Lucid personnel depressurized nearby equipment in preparation for pipeline repairs. Due to the nature of the discovery and utilization of the FLIR camera for identification no known volumes were reported initially. Released volumes were later determined through review of nearby meter readings in the SCADA system for the previous six months. The subject pipeline was taken out of service, cut and capped at both east and west end connections. Hand auger soil samples were collected by a Lucid EHSR technician. The locations of samples are presented on Figure 2 and laboratory analytical results are summarized in Table 2. The complete laboratory analytical report is included in Appendix D. Volume calculations and meter readings are presented in Appendix E.

5.0 DELINEATION SOIL SAMPLING ACTIVITIES

On September 11, during pipeline repair activates, Lucid personnel conducted site investigative activities to evaluate the release extent and current conditions at the Site. Initial repair activities exposed the pipeline at approximately 4 feet bgs with total excavation depths at about 5 feet bgs. Surface staining in the immediate release area was visually observed at depth along approximately 10 feet of the pipeline. Pipeline construction personnel were instructed to remove as much stained soil as practicable for disposal utilizing hand shovels and a trackhoe. Impacted material was stockpiled on polyethylene liner for future disposal during remediation activities. Photographic documentation was conducted during the Site visit and a Photographic Log is included in Appendix B.

Lucid personnel conducted initial delineation activities to define the horizontal and vertical extent of the impacted area. Utilizing a hand auger, five soil samples (HA-1-N, HA-2-E, HA-3-S, HA-4-W, and B-5-C) were collected within the repair excavation at bottom and just outside of the sidewall extents to verify the presence or absence of soil impacts. All HA samples were collected at about 3 feet bgs and the bottom sample, B-5-C, was collected at about 5 feet bgs. Sample depths are approximations due to the subsurface geology and encountering caliche at 3-4 feet bgs.

Field screening was conducted at each sample for chloride using Hach® chloride QuanTab® test strips. Field screening was conducted at each sample for volatile organic compounds (VOCs) using a calibrated MiniRAE Lite+ photoionization detector (PID). The soil samples were placed directly into a pre-cleaned glass jar, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C), under strict chain-of-custody (COC) procedures, to Hall Laboratories (Hall) in Albuquerque, New Mexico, for analysis of BTEX following United States EPA Method 8021B; TPH-GRO, TPH-DRO, and TPH-MRO following EPA Method 8015M/D; and/or chloride following EPA Method 300.0. The complete laboratory analytical report is included in Appendix D. Additionally, photographic documentation from delineation activities is also included in Appendix B.

6.0 REMEDIATION ACTIVITIES

On September 16, Lucid personnel and BDS Enterprises (BDS) began remedial excavation activities at the Site. Lucid remediated the Site in conjunction with the closure criteria relevant to groundwater depth of >100 feet bgs, listed in NMAC 19.15.29 Table 1. The closest permitted groundwater wells with depth to groundwater data are located approximately 0.46 mile south of the Site groundwater well data from NMOSE are listed in Appendix C.

During the initial remediation activities, the excavation bottom was expanded to a total depth of approximately 6 feet bgs. Expansion of the excavated depth was to address surface staining left in place underneath and around the pipeline after repairs. Sidewalls were also extended laterally approximately 2 feet to address surface staining. Analytical results for samples (B-5-C, B-7-C, and B-8-C) collected at the excavation bottom indicated that hydrocarbons and chlorides were not present at the sample depth of approximately 5 and 6 feet bgs, respectively.

During the week of November 23, clean locally sourced backfill material was staged onsite. Impacted material stockpiled onsite from repair activities and recently excavated material was disposed of at Northern Delaware Basin Landfill. During the week of November 30, the excavation was backfilled with local material. Lucid plans to reseed the site once seasonal temperatures have increased sufficiently to allow for effective seed germination and revegetation.

A total of eight final composite soil samples were collected throughout the excavation during the week of October 8. Composite soil samples were collected at <20' lateral intervals encompassing ≤200 yd^2 of soil. Sidewall composite soil samples of the excavation were collected at depths between 2 and 6 feet bgs. Field screening was conducted for chloride using Hach® chloride QuanTab® test strips and for hydrocarbon VOCs using a calibrated MiniRAE Lite+ PID. The soil samples were placed directly into a pre-cleaned glass jar, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4° C, under strict COC procedures, to Hall, for analysis of BTEX following United States EPA Method 8021B; TPH-GRO, TPH-DRO, and TPH-MRO following EPA Method 8015M/D; and/or chloride following EPA Method 300.0. The complete

laboratory analytical report is included in Appendix D. Additionally, photographic documentation from remediation activities is also included in Appendix B.

7.0 ANALYTICAL

All release area boundary sample locations analyzed for chloride and hydrocarbon concentrations yielded concentrations below the Closure Criteria. All other delineation grab samples indicated BTEX, TPH-GRO, TPH-DRO, and Total TPH concentrations below the applicable Closure Criteria. Hydrocarbon and chloride impacts have been delineated vertically and laterally. All confirmatory composite samples collected from the excavation sidewalls and bottom indicate that chloride and hydrocarbon impacts have been successfully remediated to below the Closure Criteria. Soil sample analytical results are reported in Table 2. The complete laboratory analytical report is included in Appendix D.

8.0 CLOSURE REQUEST

Based on the analytical data indicating hydrocarbon and chloride impacts are delineated and the remediation of impacted material, Lucid respectfully requests closure of the Site and no further action associated with Incident Number nRM2026530452. Lucid will periodically monitor any altered Site configurations that may lead to the permanent removal of sensitive subsurface pipelines located within the subject area. Lucid will commence corrective action to address reseeding the Site closer to the spring season for more effective revegetation. If you have any questions or comments, please do not hesitate to contact Mr. Michael Gant at 314-330-7876.

Sincerely,
LUCID ENERGY GROUP

Michael Gant
Environmental Coordinator

cc: Ryan Mann, NMSLO
Emily Hernandez, NMOCD
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Location
Table 2	Soil Analytical Results
Appendix A	Form C-141
Appendix B	Photographic Log
Appendix C	NMOSE Groundwater Data
Appendix D	Laboratory Analytical Report
Appendix E	Volume Calculations/ Meter Readings

FIGURES

LUCID energy group

Lucid Energy Group
201 South 4th Street
Artesia, NM 88210

LEGEND

Site

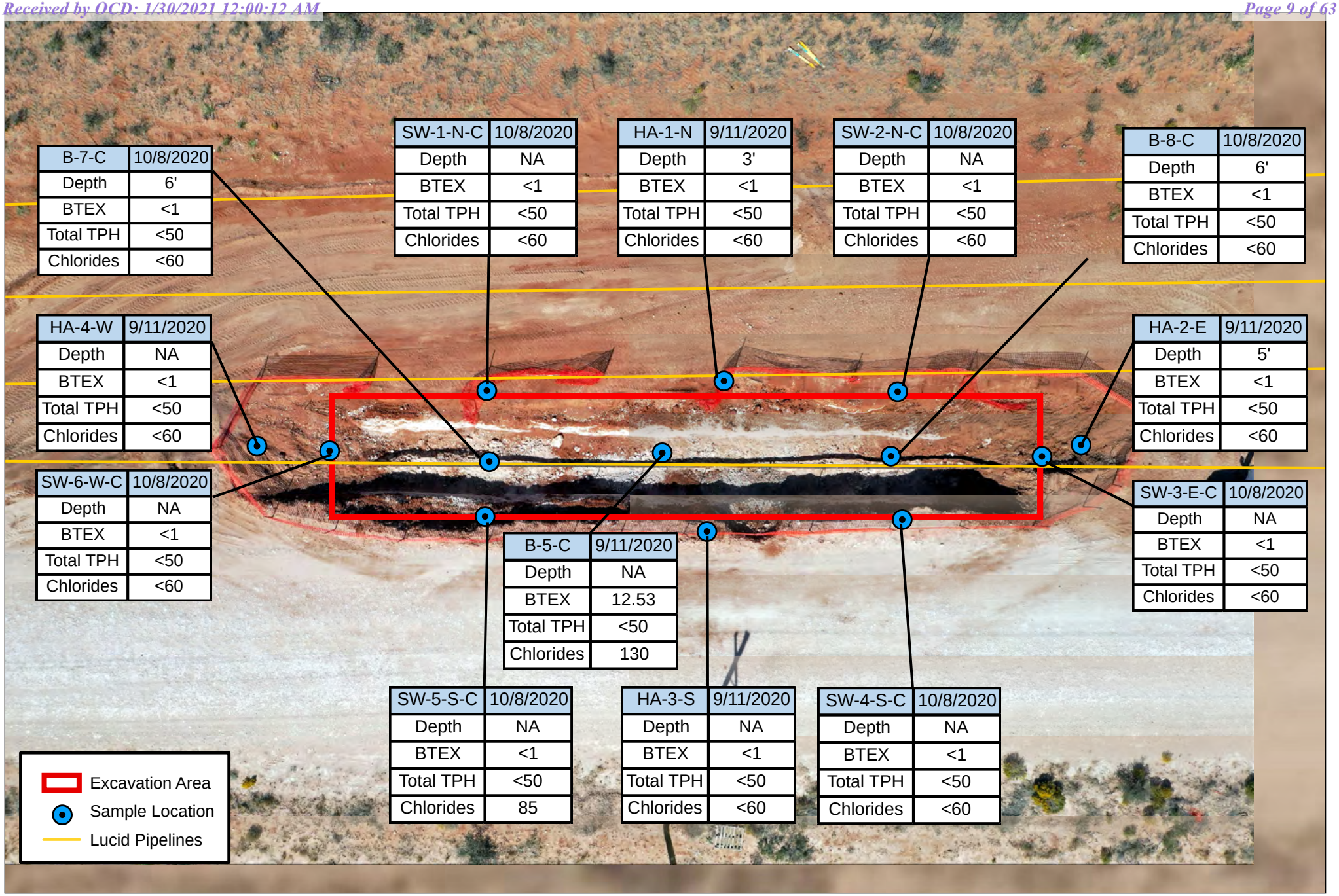
Karst
Critical
High
Medium
Low

Coordinate System
NAD 1983 StatePlane New Mexico
East FIPS 3001 Feet

0 9,680 19,360 Feet

Figure 1: Site Location Map

Pirate State BRY 6" Line Release
Eddy County, NM
32.2119946°, -103.4673337°



LUCID energy group

Lucid Energy Group
201 South 4th Street
Artesia, NM 88210

NOTES:

1. Analytical Values are given in mg/Kg (ppm).
2. Analytical Values in yellow shading exceed NMED RRAL's.

Coordinate System
NAD 1983 StatePlane New Mexico
East FIPS 3001 Feet

0 12.5 25 Feet

Figure 2: Sample Location Map
Pirate State BRY 6" Line Release
Eddy County, NM
32.2119946°, -103.4673337°

TABLES

Table 2
Soil Sample Analytical Results
Pirate State BRY
Lea County, NM

Sample ID	Depth (feet)	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	BTEX	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Chlorides
HA-1-N	3'	9/11/2020	<0.024	<0.047	<0.047	<0.095	<1	<4.7	<9.9	<49	<50	<60
HA-2-E	3'	9/11/2020	<0.024	<0.048	<0.048	<0.095	<1	<4.8	<8.8	<44	<50	<60
HA-3-S	3'	9/11/2020	<0.049	<0.099	<0.099	<0.20	<1	<9.9	<9.8	<49	<50	<60
HA-4-W	3'	9/11/2020	<0.024	<0.048	<0.048	<0.096	<1	<4.8	<9.9	<50	<50	<60
B-5-C	5'	9/11/2020	0.13	3.5	2.1	6.8	12.53	82	100	610	792	130
SW-1-N-C	NA	10/8/2020	<0.024	<0.049	<0.049	<0.097	<1	<4.9	<9.4	<47	<50	<60
SW-2-N-C	NA	10/8/2020	<0.024	<0.049	<0.049	<0.098	<1	<4.9	<8.6	<43	<50	<60
SW-3-E-C	NA	10/8/2020	<0.025	<0.049	<0.049	<0.098	<1	<4.9	<9.4	<47	<50	<60
SW-4-S-C	NA	10/8/2020	<0.025	<0.049	<0.049	<0.098	<1	<4.9	<9.3	<47	<50	<60
SW-5-S-C	NA	10/8/2020	<0.025	<0.050	<0.050	<0.10	<1	<5.0	<9.8	<49	<50	85
SW-6-W-C	NA	10/8/2020	<0.025	<0.050	<0.050	<0.10	<1	<5.0	<9.8	<49	<50	<60
B-7-C	6'	10/8/2020	<0.025	<0.050	<0.050	<0.099	<1	<5.0	<9.5	<48	<50	<60
B-8-C	6'	10/8/2020	<0.025	<0.049	<0.049	<0.099	<1	<4.9	<9.7	<48	<50	<60
NMOCD Table 1 Closure Limits			**10**	**Total BTEX: 50**				**Total TPH: 2500**				**20,000**

Notes:

All sample results are in milligrams per kilogram

NMOCD = New Mexico Oil Conservation Division
Table 1 Closure Limits = In accordance with 19.15.29 Release Rule
NA = Not Analyzed
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
TPH = Total Petroleum Hydrocarbons
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
MRO = Motor Oil Range Organics
Exceeds NMOCD limit

Appendix A

Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Lucid Energy Delaware	OGRID 372422
Contact Name Michael Gant	Contact Telephone 3143307876
Contact email MGant@lucid-energy.com	Incident # *(assigned by OCD)*
Contact mailing address 201 South 4th Street	

Location of Release Source

Latitude 32.212036° Longitude -103.467326°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Pirate State #3	Site Type Natural gas pipeline
Date Release Discovered 9/10/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	16	T24S	R34E	Lea

Surface Owner: ☑ State ☐ Federal ☐ Tribal ☐ Private (*Name:* State Land Office)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☑ Natural Gas	Volume Released (Mcf) >500 Mcf	Volume Recovered (Mcf) 0 Mcf
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The release was caused by corrsion in the pipe which led to a pinhole leak forming on the bottom of the pipe.

Form C-141 State of New Mexico
Page 2 Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☑ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The volume of natural gas lost is over 500 Mcf.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
No immediate notification was provided until the total volume lost was calculated.

Initial Response

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

☑ The source of the release has been stopped.
☑ The impacted area has been secured to protect human health and the environment.
☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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

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

Printed Name: Michael Gant Title: Environmental Coordinator

Signature: MGant Date: 9/14/2020

email: MGant@lucid-energy.com Telephone: 314-330-7876

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Michael Gant Title: Environmental Coordinator

Signature: MGant Date: 1/25/2021

email: MGant@lucid-energy.com Telephone: 3143307876

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☑ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☑ Extents of contamination must be fully delineated.

☑ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Michael Gant Title: Environmental Coordinator

Signature: MGant Date: 1/25/2021

email: MGant@lucid-energy.com Telephone: 3143307876

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2026530452
District RP	
Facility ID	
Application ID	

Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

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.

Printed Name: Michael Gant Title: Environmental Coordinator

Signature: MGant Date: 1/25/2021

email: MGant@lucid-energy.com Telephone: 314-330-7876

OCD Only

Received by: Cristina Eads Date: 01/29/2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

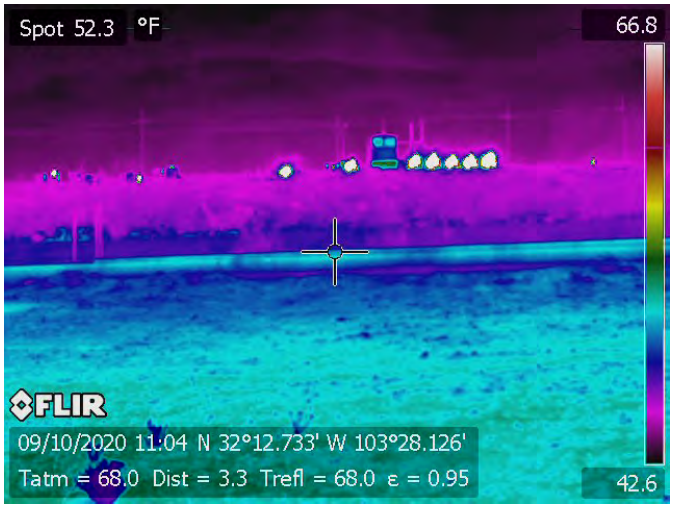
Closure Approved by: Date: 04/15/2021

Printed Name: Cristina Eads Title: Environmental Specialist

Appendix B

Photographic Log

Appendix B: Photographic Log 09/11/20-11/17/2020
Pirate State BRY Line



Infrared Image of Pipeline Looking North (9/10/20)

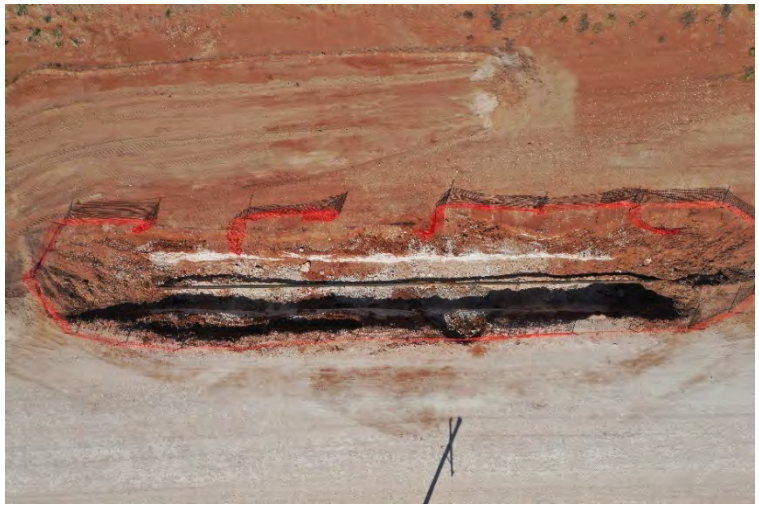
Initial Excavation Looking West (9/11/20)

Initial Excavation Looking Northeast (9/11/20)

Initial Excavation Looking East (9/11/20)

Appendix B: Photographic Log 09/11/20-11/17/2020
Pirate State BRY Line

Initial Excavation Looking Northwest (9/11/20)



Excavation Aerial (10/16/20)

Excavation Aerial (10/16/20)

Backfilled/Graded Site Looking West (11/17/20)

Appendix B: Photographic Log 09/11/20-11/17/2020
Pirate State BRY Line

Backfilled/Graded Site Looking East (11/17/20)

Backfilled/Graded Site Aerial (11/17/20)

Appendix C

Groundwater Data

Pirate State BRY Groundwater Wells

12/9/2020, 10:38:19 AM

GIS WATERS PODs

- Active
- Pending
- OSE District Boundary
- SiteBoundaries

1:11,137

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

USDA FSA, GeoEye, Maxar, Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC

OSE POD Locations

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	Twn	Rng	X	Y
	C 03943 POD1	2	4	2	21	24S	34E	644523	3564266

Driller License:	1737	**Driller Company:**	SHADE TREE DRILLING		
Driller Name:	JUSTIN MULLINS				
Drill Start Date:	04/21/2016	**Drill Finish Date:**	04/24/2016	**Plug Date:**	
Log File Date:	04/25/2016	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	5 GPM
Casing Size:	6.00	**Depth Well:**	610 feet	**Depth Water:**	431 feet

Water Bearing Stratifications:	Top	Bottom	Description
	39	431	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	420	480

Appendix D

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 18, 2020

Michael Gant

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL:
FAX:

RE: Pirate State 3 OrderNo.: 2009696

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/12/2020 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2009696**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-1-N
Project: Pirate State 3
Collection Date: 9/11/2020 11:30:00 AM
Lab ID: 2009696-001 **Matrix:** SOIL **Received Date:** 9/12/2020 8:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/17/2020 1:33:21 PM	55233
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/16/2020 2:26:36 PM	55150
Surr: BFB	101	70-130		%Rec	1	9/16/2020 2:26:36 PM	55150
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/16/2020 10:27:29 AM	55174
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/16/2020 10:27:29 AM	55174
Surr: DNOP	89.9	30.4-154		%Rec	1	9/16/2020 10:27:29 AM	55174
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	9/16/2020 2:26:36 PM	55150
Toluene	ND	0.047		mg/Kg	1	9/16/2020 2:26:36 PM	55150
Ethylbenzene	ND	0.047		mg/Kg	1	9/16/2020 2:26:36 PM	55150
Xylenes, Total	ND	0.095		mg/Kg	1	9/16/2020 2:26:36 PM	55150
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%Rec	1	9/16/2020 2:26:36 PM	55150
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	9/16/2020 2:26:36 PM	55150
Surr: Dibromofluoromethane	110	70-130		%Rec	1	9/16/2020 2:26:36 PM	55150
Surr: Toluene-d8	103	70-130		%Rec	1	9/16/2020 2:26:36 PM	55150

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2009696**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-2-E
Project: Pirate State 3
Collection Date: 9/11/2020 11:35:00 AM
Lab ID: 2009696-002 **Matrix:** SOIL **Received Date:** 9/12/2020 8:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/17/2020 2:10:23 PM	55233
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2020 3:52:03 PM	55150
Surr: BFB	101	70-130		%Rec	1	9/16/2020 3:52:03 PM	55150
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	9/16/2020 10:37:09 AM	55174
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/16/2020 10:37:09 AM	55174
Surr: DNOP	96.3	30.4-154		%Rec	1	9/16/2020 10:37:09 AM	55174
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	9/16/2020 3:52:03 PM	55150
Toluene	ND	0.048		mg/Kg	1	9/16/2020 3:52:03 PM	55150
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2020 3:52:03 PM	55150
Xylenes, Total	ND	0.095		mg/Kg	1	9/16/2020 3:52:03 PM	55150
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%Rec	1	9/16/2020 3:52:03 PM	55150
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/16/2020 3:52:03 PM	55150
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/16/2020 3:52:03 PM	55150
Surr: Toluene-d8	101	70-130		%Rec	1	9/16/2020 3:52:03 PM	55150

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

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 Quanitative 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

Analytical Report
Lab Order **2009696**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-3-S
Project: Pirate State 3
Collection Date: 9/11/2020 11:40:00 AM
Lab ID: 2009696-003 **Matrix:** SOIL **Received Date:** 9/12/2020 8:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/17/2020 2:22:43 PM	55233
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	9.9		mg/Kg	2	9/15/2020 7:33:58 PM	55150
Surr: BFB	102	70-130		%Rec	2	9/15/2020 7:33:58 PM	55150
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/16/2020 10:46:50 AM	55174
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/16/2020 10:46:50 AM	55174
Surr: DNOP	94.6	30.4-154		%Rec	1	9/16/2020 10:46:50 AM	55174
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.049		mg/Kg	2	9/15/2020 7:33:58 PM	55150
Toluene	ND	0.099		mg/Kg	2	9/15/2020 7:33:58 PM	55150
Ethylbenzene	ND	0.099		mg/Kg	2	9/15/2020 7:33:58 PM	55150
Xylenes, Total	ND	0.20		mg/Kg	2	9/15/2020 7:33:58 PM	55150
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%Rec	2	9/15/2020 7:33:58 PM	55150
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	2	9/15/2020 7:33:58 PM	55150
Surr: Dibromofluoromethane	105	70-130		%Rec	2	9/15/2020 7:33:58 PM	55150
Surr: Toluene-d8	104	70-130		%Rec	2	9/15/2020 7:33:58 PM	55150

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

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 Quanitative 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

Analytical Report
Lab Order **2009696**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: HA-4-W
Project: Pirate State 3
Collection Date: 9/11/2020 11:45:00 AM
Lab ID: 2009696-004 **Matrix:** SOIL **Received Date:** 9/12/2020 8:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/17/2020 2:35:03 PM	55233
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/15/2020 8:02:24 PM	55150
Surr: BFB	105	70-130		%Rec	1	9/15/2020 8:02:24 PM	55150
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/16/2020 10:56:32 AM	55174
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/16/2020 10:56:32 AM	55174
Surr: DNOP	122	30.4-154		%Rec	1	9/16/2020 10:56:32 AM	55174
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	9/15/2020 8:02:24 PM	55150
Toluene	ND	0.048		mg/Kg	1	9/15/2020 8:02:24 PM	55150
Ethylbenzene	ND	0.048		mg/Kg	1	9/15/2020 8:02:24 PM	55150
Xylenes, Total	ND	0.096		mg/Kg	1	9/15/2020 8:02:24 PM	55150
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%Rec	1	9/15/2020 8:02:24 PM	55150
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	9/15/2020 8:02:24 PM	55150
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/15/2020 8:02:24 PM	55150
Surr: Toluene-d8	101	70-130		%Rec	1	9/15/2020 8:02:24 PM	55150

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

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 Quanitative 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

Analytical Report
Lab Order **2009696**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B-5-C
Project: Pirate State 3
Collection Date: 9/11/2020 11:50:00 AM
Lab ID: 2009696-005 **Matrix:** SOIL **Received Date:** 9/12/2020 8:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	130	60		mg/Kg	20	9/17/2020 2:47:23 PM	55233
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	82	24		mg/Kg	5	9/16/2020 5:46:07 PM	55150
Surr: BFB	103	70-130		%Rec	5	9/16/2020 5:46:07 PM	55150
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	1000	99		mg/Kg	10	9/16/2020 11:06:16 AM	55174
Motor Oil Range Organics (MRO)	610	500		mg/Kg	10	9/16/2020 11:06:16 AM	55174
Surr: DNOP	0	30.4-154	S	%Rec	10	9/16/2020 11:06:16 AM	55174
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	0.13	0.12		mg/Kg	5	9/16/2020 5:46:07 PM	55150
Toluene	3.5	0.24		mg/Kg	5	9/16/2020 5:46:07 PM	55150
Ethylbenzene	2.1	0.24		mg/Kg	5	9/16/2020 5:46:07 PM	55150
Xylenes, Total	6.8	0.48		mg/Kg	5	9/16/2020 5:46:07 PM	55150
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%Rec	5	9/16/2020 5:46:07 PM	55150
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	5	9/16/2020 5:46:07 PM	55150
Surr: Dibromofluoromethane	107	70-130		%Rec	5	9/16/2020 5:46:07 PM	55150
Surr: Toluene-d8	100	70-130		%Rec	5	9/16/2020 5:46:07 PM	55150

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2009696**

18-Sep-20

Client: Lucid Energy Delaware

Project: Pirate State 3

Sample ID: **MB-55233**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **55233**	RunNo: **71928**							
Prep Date: **9/17/2020**	Analysis Date: **9/17/2020**	SeqNo: **2518797**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-55233**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **55233**	RunNo: **71928**							
Prep Date: **9/17/2020**	Analysis Date: **9/17/2020**	SeqNo: **2518798**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	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 Quanitative 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#: **2009696**

18-Sep-20

Client: Lucid Energy Delaware

Project: Pirate State 3

Sample ID: **2009695-004AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **BatchQC** Batch ID: **55174** RunNo: **71914**

Prep Date: **9/15/2020** Analysis Date: **9/16/2020** SeqNo: **2517190** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	9.1	45.29	16.79	100	47.4	136			
Surr: DNOP	4.7		4.529		103	30.4	154			

Sample ID: **2009695-004AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **BatchQC** Batch ID: **55174** RunNo: **71914**

Prep Date: **9/15/2020** Analysis Date: **9/16/2020** SeqNo: **2517191** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	8.6	43.22	16.79	57.3	47.4	136	39.7	43.4	
Surr: DNOP	2.6		4.322		60.5	30.4	154	0	0	

Sample ID: **LCS-55174** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **55174** RunNo: **71914**

Prep Date: **9/15/2020** Analysis Date: **9/16/2020** SeqNo: **2517231** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	70	130			
Surr: DNOP	5.6		5.000		112	30.4	154			

Sample ID: **MB-55174** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **55174** RunNo: **71914**

Prep Date: **9/15/2020** Analysis Date: **9/16/2020** SeqNo: **2517233** 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	13		10.00		127	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 Quanitative 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#: **2009696**
18-Sep-20

Client: Lucid Energy Delaware
Project: Pirate State 3

Sample ID: **lcs-55150** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **55150** RunNo: **71876**
Prep Date: **9/14/2020** Analysis Date: **9/15/2020** SeqNo: **2515702** 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	89.9	80	120			
Toluene	0.98	0.050	1.000	0	97.8	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.5	80	120			
Xylenes, Total	3.1	0.10	3.000	0	105	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.1	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID: **mb-55150** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **55150** RunNo: **71876**
Prep Date: **9/14/2020** Analysis Date: **9/15/2020** SeqNo: **2515703** 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		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID: **2009696-001ams** SampType: **MS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **HA-1-N** Batch ID: **55150** RunNo: **71916**
Prep Date: **9/14/2020** Analysis Date: **9/16/2020** SeqNo: **2517240** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.024	0.9515	0	89.6	71.1	115			
Toluene	0.97	0.048	0.9515	0	102	79.6	132			
Ethylbenzene	1.0	0.048	0.9515	0	106	83.8	134			
Xylenes, Total	3.2	0.095	2.854	0	112	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.43		0.4757		89.8	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.4757		107	70	130			
Surr: Dibromofluoromethane	0.51		0.4757		106	70	130			
Surr: Toluene-d8	0.50		0.4757		105	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 Quanitative 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#: **2009696**

18-Sep-20

Client: Lucid Energy Delaware

Project: Pirate State 3

Sample ID: **2009696-001amsd** SampType: **MSD4** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **HA-1-N** Batch ID: **55150** RunNo: **71916**

Prep Date: **9/14/2020** Analysis Date: **9/16/2020** SeqNo: **2517241** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.024	0.9737	0	88.1	71.1	115	0.662	20	
Toluene	0.95	0.049	0.9737	0	97.8	79.6	132	2.22	20	
Ethylbenzene	0.96	0.049	0.9737	0	98.3	83.8	134	5.14	20	
Xylenes, Total	3.0	0.097	2.921	0	103	82.4	132	5.66	20	
Surr: 1,2-Dichloroethane-d4	0.45		0.4869		93.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.50		0.4869		103	70	130	0	0	
Surr: Dibromofluoromethane	0.52		0.4869		106	70	130	0	0	
Surr: Toluene-d8	0.48		0.4869		97.9	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 Quanitative 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#: **2009696**

18-Sep-20

Client: Lucid Energy Delaware

Project: Pirate State 3

Sample ID: **lcs-55150**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **55150**	RunNo: **71876**
Prep Date: **9/14/2020**	Analysis Date: **9/15/2020**	SeqNo: **2515733** 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	88.0	70	130			
Surr: BFB	500		500.0		99.1	70	130			

Sample ID: **mb-55150**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **55150**	RunNo: **71876**
Prep Date: **9/14/2020**	Analysis Date: **9/15/2020**	SeqNo: **2515734** 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		103	70	130			

Sample ID: **2009696-002ams**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **HA-2-E**	Batch ID: **55150**	RunNo: **71916**
Prep Date: **9/14/2020**	Analysis Date: **9/16/2020**	SeqNo: **2517276** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.80	0	89.6	49.2	122			
Surr: BFB	500		496.0		101	70	130			

Sample ID: **2009696-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **HA-2-E**	Batch ID: **55150**	RunNo: **71916**
Prep Date: **9/14/2020**	Analysis Date: **9/16/2020**	SeqNo: **2517277** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.8	24.22	0	90.0	49.2	122	1.91	20	
Surr: BFB	500		484.5		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 Quanitative 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

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: **Lucid Energy Delaware** Work Order Number: **2009696** RcptNo: 1

Received By: **Isaiah Ortiz** **9/12/2020 8:08:00 AM** I-OL

Completed By: **Isaiah Ortiz** **9/12/2020 8:45:49 AM** I-OL

Reviewed By: IO 09/12/20 GW 09/12/20

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? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: IO 9/12/20 (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Not Present			

Chain-of-Custody Record

Client: Lucid Energy

Mailing Address: on file

Phone #: 314 330 7876

email or Fax#: mgant@lucid-energy.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5 Day
☒ Standard ☐ Rush

Project Name: Pirate State #3

Project #:

Project Manager: Michael Gant

Sampler: MG

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 1.4°C - 0 CF = 1.4°C (°C)

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. 2009696	BTEX / ~~MTBE~~ / ~~TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	CHF, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9/11/20	1130	S	HA-1-N	4oz Soil Jar	ICE	001	X	X					X			
	1135		HA-2-E			002	X	X					X			
	1140		HA-3-S			003	X	X					X			
	1145		HA-4-W			004	X	X					X			
	1150		B-5-C			005	X	X					X			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9/11/20	1350				9/11/20	1350
9/11/20	1900				9/12/20	0808

Remarks:

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

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

October 19, 2020

Michael Gant

Lucid Energy Delaware
201 South 4th St.
Artesia, NM 88210
TEL: (575) 513-8988
FAX:

RE: Pirate State 3 OrderNo.: 2010551

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/10/2020 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2010551**
Date Reported: **10/19/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW.1.N.C
Project: Pirate State 3
Collection Date: 10/8/2020 12:30:00 PM
Lab ID: 2010551-001 **Matrix:** SOIL **Received Date:** 10/10/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/13/2020 2:53:46 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/13/2020 2:53:46 PM
Surr: DNOP	75.4	30.4-154		%Rec	1	10/13/2020 2:53:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	10/15/2020 2:09:47 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.024		mg/Kg	1	10/13/2020 3:51:59 AM
Toluene	ND	0.049		mg/Kg	1	10/13/2020 3:51:59 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/13/2020 3:51:59 AM
Xylenes, Total	ND	0.097		mg/Kg	1	10/13/2020 3:51:59 AM
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%Rec	1	10/13/2020 3:51:59 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	10/13/2020 3:51:59 AM
Surr: Dibromofluoromethane	102	70-130		%Rec	1	10/13/2020 3:51:59 AM
Surr: Toluene-d8	97.1	70-130		%Rec	1	10/13/2020 3:51:59 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/13/2020 3:51:59 AM
Surr: BFB	106	70-130		%Rec	1	10/13/2020 3:51:59 AM

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2010551**
Date Reported: **10/19/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW.2.N.C
Project: Pirate State 3
Collection Date: 10/8/2020 12:35:00 PM
Lab ID: 2010551-002 **Matrix:** SOIL **Received Date:** 10/10/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	10/13/2020 3:17:35 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	10/13/2020 3:17:35 PM
Surr: DNOP	76.6	30.4-154		%Rec	1	10/13/2020 3:17:35 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	10/15/2020 2:22:12 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.024		mg/Kg	1	10/13/2020 4:20:31 AM
Toluene	ND	0.049		mg/Kg	1	10/13/2020 4:20:31 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/13/2020 4:20:31 AM
Xylenes, Total	ND	0.098		mg/Kg	1	10/13/2020 4:20:31 AM
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%Rec	1	10/13/2020 4:20:31 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	10/13/2020 4:20:31 AM
Surr: Dibromofluoromethane	103	70-130		%Rec	1	10/13/2020 4:20:31 AM
Surr: Toluene-d8	101	70-130		%Rec	1	10/13/2020 4:20:31 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/13/2020 4:20:31 AM
Surr: BFB	105	70-130		%Rec	1	10/13/2020 4:20:31 AM

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2010551**
Date Reported: **10/19/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW.3.E.C
Project: Pirate State 3
Collection Date: 10/8/2020 12:40:00 PM
Lab ID: 2010551-003 **Matrix:** SOIL **Received Date:** 10/10/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/13/2020 3:41:23 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/13/2020 3:41:23 PM
Surr: DNOP	123	30.4-154		%Rec	1	10/13/2020 3:41:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	10/15/2020 2:34:36 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.025		mg/Kg	1	10/13/2020 4:49:02 AM
Toluene	ND	0.049		mg/Kg	1	10/13/2020 4:49:02 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/13/2020 4:49:02 AM
Xylenes, Total	ND	0.098		mg/Kg	1	10/13/2020 4:49:02 AM
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%Rec	1	10/13/2020 4:49:02 AM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	10/13/2020 4:49:02 AM
Surr: Dibromofluoromethane	105	70-130		%Rec	1	10/13/2020 4:49:02 AM
Surr: Toluene-d8	103	70-130		%Rec	1	10/13/2020 4:49:02 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/13/2020 4:49:02 AM
Surr: BFB	102	70-130		%Rec	1	10/13/2020 4:49:02 AM

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

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 Quanitative 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

Analytical Report
Lab Order **2010551**
Date Reported: **10/19/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW.4.S.C
Project: Pirate State 3
Collection Date: 10/8/2020 12:45:00 PM
Lab ID: 2010551-004 **Matrix:** SOIL **Received Date:** 10/10/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/13/2020 4:05:17 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/13/2020 4:05:17 PM
Surr: DNOP	82.5	30.4-154		%Rec	1	10/13/2020 4:05:17 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	10/15/2020 2:47:00 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.025		mg/Kg	1	10/13/2020 5:17:34 AM
Toluene	ND	0.049		mg/Kg	1	10/13/2020 5:17:34 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/13/2020 5:17:34 AM
Xylenes, Total	ND	0.098		mg/Kg	1	10/13/2020 5:17:34 AM
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%Rec	1	10/13/2020 5:17:34 AM
Surr: 4-Bromofluorobenzene	98.8	70-130		%Rec	1	10/13/2020 5:17:34 AM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	10/13/2020 5:17:34 AM
Surr: Toluene-d8	99.5	70-130		%Rec	1	10/13/2020 5:17:34 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/13/2020 5:17:34 AM
Surr: BFB	101	70-130		%Rec	1	10/13/2020 5:17:34 AM

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

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 Quanitative 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

Analytical Report
Lab Order **2010551**
Date Reported: **10/19/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW.5.S.C
Project: Pirate State 3
Collection Date: 10/8/2020 12:50:00 PM
Lab ID: 2010551-005 **Matrix:** SOIL **Received Date:** 10/10/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/13/2020 4:29:05 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/13/2020 4:29:05 PM
Surr: DNOP	84.8	30.4-154		%Rec	1	10/13/2020 4:29:05 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	85	60		mg/Kg	20	10/15/2020 2:59:24 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.025		mg/Kg	1	10/13/2020 5:46:06 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2020 5:46:06 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2020 5:46:06 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2020 5:46:06 AM
Surr: 1,2-Dichloroethane-d4	92.0	70-130		%Rec	1	10/13/2020 5:46:06 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	10/13/2020 5:46:06 AM
Surr: Dibromofluoromethane	101	70-130		%Rec	1	10/13/2020 5:46:06 AM
Surr: Toluene-d8	97.8	70-130		%Rec	1	10/13/2020 5:46:06 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2020 5:46:06 AM
Surr: BFB	99.9	70-130		%Rec	1	10/13/2020 5:46:06 AM

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 Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **2010551**
Date Reported: **10/19/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: SW.6.W.C
Project: Pirate State 3
Collection Date: 10/8/2020 12:55:00 PM
Lab ID: 2010551-006 **Matrix:** SOIL **Received Date:** 10/10/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/13/2020 4:52:57 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/13/2020 4:52:57 PM
Surr: DNOP	83.6	30.4-154		%Rec	1	10/13/2020 4:52:57 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	10/15/2020 4:01:26 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.025		mg/Kg	1	10/13/2020 6:14:37 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2020 6:14:37 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2020 6:14:37 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2020 6:14:37 AM
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%Rec	1	10/13/2020 6:14:37 AM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	10/13/2020 6:14:37 AM
Surr: Dibromofluoromethane	105	70-130		%Rec	1	10/13/2020 6:14:37 AM
Surr: Toluene-d8	102	70-130		%Rec	1	10/13/2020 6:14:37 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2020 6:14:37 AM
Surr: BFB	100	70-130		%Rec	1	10/13/2020 6:14:37 AM

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2010551**
Date Reported: **10/19/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B.7.C
Project: Pirate State 3
Collection Date: 10/8/2020 2:00:00 PM
Lab ID: 2010551-007 **Matrix:** SOIL **Received Date:** 10/10/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/13/2020 5:16:54 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/13/2020 5:16:54 PM
Surr: DNOP	72.2	30.4-154		%Rec	1	10/13/2020 5:16:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	10/15/2020 4:13:51 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.025		mg/Kg	1	10/13/2020 6:43:10 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2020 6:43:10 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2020 6:43:10 AM
Xylenes, Total	ND	0.099		mg/Kg	1	10/13/2020 6:43:10 AM
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%Rec	1	10/13/2020 6:43:10 AM
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	10/13/2020 6:43:10 AM
Surr: Dibromofluoromethane	100	70-130		%Rec	1	10/13/2020 6:43:10 AM
Surr: Toluene-d8	95.7	70-130		%Rec	1	10/13/2020 6:43:10 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2020 6:43:10 AM
Surr: BFB	103	70-130		%Rec	1	10/13/2020 6:43:10 AM

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

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 Quanitative 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

Analytical Report
Lab Order **2010551**
Date Reported: **10/19/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware
Client Sample ID: B.8.C
Project: Pirate State 3
Collection Date: 10/8/2020 2:05:00 PM
Lab ID: 2010551-008 **Matrix:** SOIL **Received Date:** 10/10/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/13/2020 5:40:47 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/13/2020 5:40:47 PM
Surr: DNOP	85.9	30.4-154		%Rec	1	10/13/2020 5:40:47 PM
EPA METHOD 300.0: ANIONS						Analyst: **CAS**
Chloride	ND	60		mg/Kg	20	10/15/2020 4:26:16 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**
Benzene	ND	0.025		mg/Kg	1	10/13/2020 7:11:40 AM
Toluene	ND	0.049		mg/Kg	1	10/13/2020 7:11:40 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/13/2020 7:11:40 AM
Xylenes, Total	ND	0.099		mg/Kg	1	10/13/2020 7:11:40 AM
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%Rec	1	10/13/2020 7:11:40 AM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	10/13/2020 7:11:40 AM
Surr: Dibromofluoromethane	101	70-130		%Rec	1	10/13/2020 7:11:40 AM
Surr: Toluene-d8	98.2	70-130		%Rec	1	10/13/2020 7:11:40 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/13/2020 7:11:40 AM
Surr: BFB	106	70-130		%Rec	1	10/13/2020 7:11:40 AM

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

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 Quanitative 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#: **2010551**
19-Oct-20

Client: Lucid Energy Delaware
Project: Pirate State 3

Sample ID: **MB-55848**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **55848**	RunNo: **72692**							
Prep Date: **10/15/2020**	Analysis Date: **10/15/2020**	SeqNo: **2553253**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-55848**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **55848**	RunNo: **72692**							
Prep Date: **10/15/2020**	Analysis Date: **10/15/2020**	SeqNo: **2553254**	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 Quanitative 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#: **2010551**
19-Oct-20

Client: Lucid Energy Delaware
Project: Pirate State 3

Sample ID: **MB-55773** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **55773** RunNo: **72584**
Prep Date: **10/12/2020** Analysis Date: **10/13/2020** SeqNo: **2549889** 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	8.8		10.00		87.8	30.4	154			

Sample ID: **LCS-55773** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **55773** RunNo: **72584**
Prep Date: **10/12/2020** Analysis Date: **10/13/2020** SeqNo: **2549890** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	77.6	70	130			
Surr: DNOP	4.1		5.000		81.1	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 Quanitative 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#: **2010551**
19-Oct-20

Client: Lucid Energy Delaware
Project: Pirate State 3

Sample ID: **lcs-55768** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC** Batch ID: **55768** RunNo: **72604**
Prep Date: **10/11/2020** Analysis Date: **10/12/2020** SeqNo: **2549302** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.7	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.8	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Sample ID: **mb-55768** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **55768** RunNo: **72604**
Prep Date: **10/11/2020** Analysis Date: **10/12/2020** SeqNo: **2549303** 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	0.47		0.5000		93.2	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.48		0.5000		96.0	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 Quanitative 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#: **2010551**
19-Oct-20

Client: Lucid Energy Delaware
Project: Pirate State 3

Sample ID: **lcs-55768** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **55768** RunNo: **72604**
Prep Date: **10/11/2020** Analysis Date: **10/12/2020** SeqNo: **2549385** 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	84.7	70	130			
Surr: BFB	500		500.0		101	70	130			

Sample ID: **mb-55768** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **55768** RunNo: **72604**
Prep Date: **10/11/2020** Analysis Date: **10/12/2020** SeqNo: **2549386** 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	530		500.0		106	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 Quanitative 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

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: Lucid Energy Delaware Work Order Number: 2010551 RcptNo: 1

Received By: **Juan Rojas** 10/10/2020 7:30:00 AM

Completed By: **Juan Rojas** 10/10/2020 8:01:28 AM

Reviewed By: 10/10/2020

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? (Note discrepancies on chain of custody) Yes ☑ No ☐
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? (If no, notify customer for authorization.) Yes ☑ No ☐

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good				

Chain-of-Custody Record

Client: Lucid Energy

Mailing Address: onfile

Phone #: 3143307876

email or Fax#: mgant@lucid-energy.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Pirate State 3

Project #:

Project Manager: Michael Gant

Sampler: MG

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 0.4-0.1=0.3 (°C)

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. 2010551	BTEX / ~~MTBE~~ / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/8/20	1230	S	SW-1-N-C	4oz Soil Jar	ICE	-001	X	X					X			
	1235		SW-2-N-C			-002	X	X					X			
	1240		SW-3-E-C			-003	X	X					X			
	1245		SW-4-S-C			-004	X	X					X			
	1250		SW-5-S-C			-005	X	X					X			
	1255		SW-6-W-C			-006	X	X					X			
	1400		B-7-C			-007	X	X					X			
	1405		B-8-C			-008	X	X					X			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
10/9/20	0950				10/9/20	0950
10/9/20	1900			courier	10/10/20	7:30

Remarks:

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 E

Volume Calculations

Date	Input	Output	Difference (MCF)	% loss
12/6/2019	2,515.80	2,531.50	15.7	0.62%
12/7/2019	2,604.70	2,711.10	106.3	4.08%
12/8/2019	**2,663.10**	**2,563.10**	**-100**	**-3.76%**
12/9/2019	**2,556.20**	**2,149.90**	**-406.2**	**-15.89%**
12/10/2019	**2,260.40**	**1,774.80**	**-485.7**	**-21.49%**
12/11/2019	**2,579.50**	**2,206.70**	**-372.8**	**-14.45%**
12/12/2019	**2,149.20**	**1,507.70**	**-641.5**	**-29.85%**
12/13/2019	**1,177.10**	**410.8**	**-766.4**	**-65.10%**
12/14/2019	**1,660.60**	**749.1**	**-911.5**	**-54.89%**
12/15/2019	**1,107.70**	**199**	**-908.7**	**-82.03%**
12/16/2019	**1,414.50**	**804.2**	**-610.3**	**-43.15%**
12/17/2019	**2,149.50**	**1,592.40**	**-557.1**	**-25.92%**
12/18/2019	**2,369.00**	**1,932.80**	**-436.2**	**-18.41%**
12/19/2019	**1,961.60**	**1,789.20**	**-172.4**	**-8.79%**
12/20/2019	**1,443.50**	**502.6**	**-940.9**	**-65.18%**
12/21/2019	**1,650.90**	**623.1**	**-1027.8**	**-62.26%**
12/22/2019	**2,285.10**	**1,857.10**	**-428**	**-18.73%**
12/23/2019	**1,331.00**	**655.2**	**-675.8**	**-50.78%**
12/24/2019	**2,464.70**	**1,813.50**	**-651.2**	**-26.42%**
12/25/2019	**2,075.50**	**1,350.10**	**-725.4**	**-34.95%**
12/26/2019	**2,436.50**	**1,710.10**	**-726.4**	**-29.81%**
12/27/2019	**2,145.80**	**1,571.50**	**-574.4**	**-26.77%**
12/28/2019	**2,438.80**	**1,748.60**	**-690.3**	**-28.30%**
12/29/2019	**2,166.80**	**1,401.60**	**-765.2**	**-35.31%**
12/30/2019	**1,804.50**	**1,176.70**	**-627.8**	**-34.79%**
12/31/2019	**2,531.30**	**1,981.20**	**-550.1**	**-21.73%**
1/1/2020	**1,524.30**	**690.8**	**-833.5**	**-54.68%**
1/2/2020	**1,102.40**	**113.9**	**-988.5**	**-89.67%**
1/3/2020	**2,286.00**	**1,692.30**	**-593.7**	**-25.97%**
1/4/2020	**2,435.30**	**1,668.60**	**-766.7**	**-31.48%**
1/5/2020	**2,192.70**	**1,198.60**	**-994.1**	**-45.34%**
1/6/2020	**1,781.90**	**802.7**	**-979.2**	**-54.95%**
1/7/2020	**2,839.30**	**2,325.60**	**-513.7**	**-18.09%**
1/8/2020	**2,490.70**	**1,986.10**	**-504.7**	**-20.26%**
1/9/2020	**2,218.00**	**1,370.70**	**-847.3**	**-38.20%**
1/10/2020	**2,460.30**	**2,082.40**	**-377.9**	**-15.36%**
1/11/2020	**1,677.40**	**897.1**	**-780.3**	**-46.52%**
1/12/2020	**1,105.20**	**120.8**	**-984.5**	**-89.07%**
1/13/2020	**1,066.80**	**119.5**	**-947.3**	**-88.80%**
1/14/2020	**1,060.40**	**120.6**	**-939.8**	**-88.63%**
1/15/2020	**1,081.00**	**115.6**	**-965.4**	**-89.31%**
1/16/2020	**2,164.30**	**942.3**	**-1222**	**-56.46%**
1/17/2020	**2,806.30**	**2,044.70**	**-761.7**	**-27.14%**
1/18/2020	**2,809.30**	**2,049.50**	**-759.8**	**-27.05%**
1/19/2020	**1,356.80**	**152**	**-1204.8**	**-88.79%**

1/20/2020	1,404.20	105.4	-1298.8	-92.50%
1/21/2020	1,428.70	507.9	-920.8	-64.45%
1/22/2020	2,700.60	1,091.50	-1609	-59.58%
1/23/2020	1,808.40	543.5	-1264.9	-69.95%
1/24/2020	2,373.80	815	-1558.8	-65.67%
1/25/2020	1,258.20	65.6	-1192.6	-94.79%
1/26/2020	2,550.80	1,410.70	-1140	-44.69%
1/27/2020	2,930.00	2,544.10	-385.9	-13.17%
1/28/2020	2,925.20	2,560.90	-364.3	-12.45%
1/29/2020	2,319.10	1,746.80	-572.4	-24.68%
1/30/2020	2,278.70	1,734.40	-544.3	-23.89%
1/31/2020	1,068.20	100.9	-967.2	-90.55%
2/1/2020	2,457.10	1,907.00	-550.1	-22.39%
2/2/2020	2,743.70	2,335.00	-408.7	-14.89%
2/3/2020	1,879.40	1,223.40	-656	-34.91%
2/4/2020	2,021.70	1,323.60	-698.1	-34.53%
2/5/2020	987.7	20	-967.7	-97.98%
2/6/2020	2,027.50	1,161.00	-866.5	-42.74%
2/7/2020	2,347.10	1,768.30	-578.9	-24.66%
2/8/2020	2,407.80	1,887.10	-520.8	-21.63%
2/9/2020	2,674.90	2,283.10	-391.8	-14.65%
2/10/2020	2,172.60	1,584.50	-588.1	-27.07%
2/11/2020	1,883.80	534	-1349.8	-71.65%
2/12/2020	2,532.60	1,876.20	-656.4	-25.92%
2/13/2020	1,702.00	1,056.10	-645.9	-37.95%
2/14/2020	1,735.60	873	-862.7	-49.70%
2/15/2020	1,111.00	133.7	-977.2	-87.96%
2/16/2020	1,761.10	874.9	-886.2	-50.32%
2/17/2020	1,677.10	832.1	-845	-50.39%
2/18/2020	1,007.20	0	-1007.2	-100%
2/19/2020	1,009.90	0	-1009.9	-100%
2/20/2020	1,004.90	0	-1004.9	-100%
2/21/2020	984.5	4.1	-980.4	-99.58%
2/22/2020	987.8	166	-821.8	-83.19%
2/23/2020	980	0	-980	-100%
2/24/2020	980.8	0	-980.8	-100%
2/25/2020	2,315.30	1,600.80	-714.6	-30.86%
2/26/2020	2,804.50	2,252.00	-552.5	-19.70%
2/27/2020	1,487.10	618.5	-868.6	-58.41%
2/28/2020	979.1	0	-979.1	-100%
2/29/2020	1,927.10	1,080.50	-846.5	-43.93%
3/1/2020	2,918.60	2,359.00	-559.6	-19.17%
3/2/2020	2,990.00	2,440.20	-549.8	-18.39%
3/3/2020	2,976.40	2,367.40	-608.9	-20.46%
3/4/2020	1,918.30	1,144.90	-773.3	-40.31%
3/5/2020	2,393.00	1,507.10	-885.8	-37.02%
3/6/2020	3,040.40	2,393.10	-647.2	-21.29%

3/7/2020	2,472.30	1,708.00	-764.3	-30.91%
3/8/2020	2,115.40	1,298.40	-817	-38.62%
3/9/2020	3,038.60	2,500.70	-538	-17.71%
3/10/2020	2,674.90	2,039.00	-635.9	-23.77%
3/11/2020	1,980.50	1,204.30	-776.2	-39.19%
3/12/2020	2,065.90	1,193.60	-872.3	-42.22%
3/13/2020	2,145.30	1,351.90	-793.4	-36.98%
3/14/2020	979.3	0	-979.3	-100%
3/15/2020	1,049.00	0	-1049	-100%
3/16/2020	1,006.70	0	-1006.7	-100%
3/17/2020	974.4	0	-974.4	-100%
3/18/2020	1,177.60	217.6	-960	-81.52%
3/19/2020	2,309.70	1,633.80	-675.9	-29.26%
3/20/2020	2,536.70	1,908.20	-628.5	-24.78%
3/21/2020	2,681.00	2,115.60	-565.4	-21.09%
3/22/2020	2,716.20	2,095.70	-620.6	-22.85%
3/23/2020	2,363.40	1,714.60	-648.8	-27.45%
3/24/2020	2,389.30	1,706.90	-682.4	-28.56%
3/25/2020	2,129.40	1,411.10	-718.3	-33.73%
3/26/2020	2,819.70	2,213.60	-606.1	-21.49%
3/27/2020	2,269.20	1,558.50	-710.7	-31.32%
3/28/2020	1,404.20	263.2	-1140.9	-81.25%
3/29/2020	967.5	0	-967.5	-100%
3/30/2020	1,577.70	696.9	-880.8	-55.83%
3/31/2020	2,753.60	2,057.20	-696.4	-25.29%
4/1/2020	2,594.70	1,887.00	-707.7	-27.28%
4/2/2020	3,105.50	2,514.80	-590.7	-19.02%
4/3/2020	3,101.70	2,509.60	-592.1	-19.09%
4/4/2020	2,820.70	2,166.50	-654.2	-23.19%
4/5/2020	3,027.10	2,439.80	-587.3	-19.40%
4/6/2020	2,675.40	2,078.40	-597	-22.31%
4/7/2020	2,776.70	2,207.50	-569.1	-20.50%
4/8/2020	2,795.40	2,220.10	-575.3	-20.58%
4/9/2020	2,778.80	2,204.00	-574.8	-20.68%
4/10/2020	2,843.20	2,258.50	-584.6	-20.56%
4/11/2020	2,834.30	2,256.00	-578.3	-20.40%
4/12/2020	2,864.00	2,262.60	-601.4	-21%
4/13/2020	2,847.70	2,268.80	-578.9	-20.33%
4/14/2020	2,853.00	2,233.70	-619.3	-21.71%
4/15/2020	2,876.80	2,297.10	-579.7	-20.15%
4/16/2020	2,904.80	2,328.70	-576.1	-19.83%
4/17/2020	2,909.50	2,373.20	-536.3	-18.43%
4/18/2020	2,379.60	1,662.30	-717.2	-30.14%
4/19/2020	2,946.40	2,375.90	-570.5	-19.36%
4/20/2020	2,591.60	1,970.30	-621.3	-23.97%
4/21/2020	2,628.00	1,934.50	-693.5	-26.39%
4/22/2020	2,979.60	2,375.70	-603.9	-20.27%

4/23/2020	3,026.00	2,430.20	-595.8	-19.69%
4/24/2020	2,768.30	2,138.70	-629.6	-22.74%
4/25/2020	3,063.00	2,489.50	-573.4	-18.72%
4/26/2020	2,936.10	2,301.30	-634.8	-21.62%
4/27/2020	2,763.50	1,862.30	-901.2	-32.61%
4/28/2020	2,959.40	2,235.00	-724.4	-24.48%
4/29/2020	3,057.40	2,456.00	-601.4	-19.67%
4/30/2020	2,340.10	1,532.80	-807.3	-34.50%
5/1/2020	3,024.00	2,644.60	-379.4	-12.55%
5/2/2020	3,172.20	2,571.40	-600.8	-18.94%
5/3/2020	3,212.20	2,624.20	-587.9	-18.30%
5/4/2020	2,528.10	1,981.20	-546.9	-21.63%
5/5/2020	362.7	205.6	-157	-43.30%
5/6/2020	42.8	0.4	-42.4	-99.04%
5/7/2020	41	0.1	-40.9	-99.64%
5/8/2020	39.9	1.4	-38.4	-96.42%
5/9/2020	1,034.10	0.4	-1033.7	-99.96%
5/10/2020	880	0	-879.9	-100%
5/11/2020	857.8	0	-857.8	-100%
5/12/2020	1,010.40	0.3	-1010.1	-99.97%
5/13/2020	980.1	12.2	-967.9	-98.76%
5/14/2020	1,027.20	0	-1027.2	-100%
5/15/2020	964.2	2.6	-961.5	-99.73%
5/16/2020	1,056.40	7.8	-1048.6	-99.27%
5/17/2020	1,053.00	14	-1039	-98.67%
5/18/2020	1,026.90	1.3	-1025.6	-99.87%
5/19/2020	1,035.60	0	-1035.6	-100%
5/20/2020	1,041.20	0	-1041.2	-100%
5/21/2020	1,040.40	0	-1040.4	-100%
5/22/2020	1,034.60	0	-1034.6	-100%
5/23/2020	1,030.70	0	-1030.7	-100%
5/24/2020	1,030.00	0	-1030	-100%
5/25/2020	1,035.20	0	-1035.2	-100%
5/26/2020	1,029.00	0	-1029	-100%
5/27/2020	1,023.00	0	-1023	-100%
5/28/2020	1,023.50	0	-1023.5	-100%
5/29/2020	995.5	0	-995.5	-100%
5/30/2020	980.3	0	-980.3	-100%
5/31/2020	979.8	0	-979.8	-100%
6/1/2020	971.9	0	-971.9	-100%
6/2/2020	986.7	12.9	-973.7	-98.69%
6/3/2020	966.6	0	-966.6	-100%
6/4/2020	1,674.80	616.5	-1058.2	-63.19%
6/5/2020	1,932.90	966.7	-966.2	-49.99%
6/6/2020	2,969.60	2,389.40	-580.2	-19.54%
6/7/2020	2,652.50	2,020.10	-632.4	-23.84%
6/8/2020	2,784.70	1,848.70	-936	-33.61%

6/9/2020	2,635.90	1,920.30	-715.5	-27.15%
6/10/2020	3,192.10	2,657.60	-534.5	-16.74%
6/11/2020	3,251.30	2,677.30	-574	-17.65%
6/12/2020	3,139.30	2,449.90	-689.4	-21.96%
6/13/2020	3,454.50	2,864.80	-589.8	-17.07%
6/14/2020	3,614.60	3,054.60	-560	-15.49%
6/15/2020	3,577.60	2,998.60	-579	-16.18%
6/16/2020	1,011.10	17.9	-993.2	-98.23%
6/17/2020	3,039.80	2,285.40	-754.3	-24.82%
6/18/2020	3,509.80	2,888.90	-620.9	-17.69%
6/19/2020	3,459.80	2,713.80	-746	-21.56%
6/20/2020	3,612.60	3,084.50	-528.1	-14.62%
6/21/2020	3,573.90	3,037.90	-535.9	-15%
6/22/2020	3,531.30	3,016.10	-515.2	-14.59%
6/23/2020	3,523.70	2,991.80	-531.9	-15.09%
6/24/2020	3,362.40	2,791.90	-570.5	-16.97%
6/25/2020	3,480.50	2,961.70	-518.8	-14.91%
6/26/2020	1,266.20	309	-957.2	-75.60%
6/27/2020	991.4	0	-991.4	-100%
6/28/2020	2,129.00	1,324.30	-804.7	-37.80%
6/29/2020	3,454.60	2,929.60	-524.9	-15.20%
6/30/2020	3,330.50	2,638.00	-692.5	-20.79%
7/1/2020	3,359.90	2,786.60	-573.3	-17.06%
7/2/2020	3,405.60	2,961.20	-444.3	-13.05%
7/3/2020	3,413.20	2,969.10	-444.1	-13.01%
7/4/2020	3,294.30	2,827.20	-467.1	-14.18%
7/5/2020	3,366.60	2,928.40	-438.2	-13.02%
7/6/2020	3,243.00	2,807.40	-435.7	-13.43%
7/7/2020	2,955.20	2,512.00	-443.2	-15%
7/8/2020	3,142.70	2,699.20	-443.5	-14.11%
7/9/2020	1,083.20	196.7	-886.5	-81.84%
7/10/2020	2,664.80	2,185.60	-479.2	-17.98%
7/11/2020	3,035.70	2,584.80	-450.9	-14.85%
7/12/2020	2,194.80	1,525.90	-668.9	-30.48%
7/13/2020	3,283.20	2,844.70	-438.5	-13.35%
7/14/2020	3,340.10	2,893.80	-446.3	-13.36%
7/15/2020	3,262.90	2,823.10	-439.9	-13.48%
7/16/2020	3,253.50	2,811.30	-442.3	-13.59%
7/17/2020	3,282.30	2,832.00	-450.3	-13.72%
7/18/2020	3,276.50	2,826.30	-450.2	-13.74%
7/19/2020	3,291.50	2,854.40	-437.1	-13.28%
7/20/2020	3,267.40	2,818.10	-449.3	-13.75%
7/21/2020	3,285.20	2,848.70	-436.5	-13.29%
7/22/2020	3,296.50	2,869.70	-426.7	-12.95%
7/23/2020	3,208.20	2,776.00	-432.2	-13.47%
7/24/2020	3,176.20	2,742.20	-434	-13.67%
7/25/2020	3,148.90	2,717.70	-431.1	-13.69%

7/26/2020	3,153.50	2,726.90	-426.6	-13.53%
7/27/2020	3,146.60	2,711.80	-434.8	-13.82%
7/28/2020	3,140.90	2,724.80	-416.1	-13.25%
7/29/2020	2,999.00	2,515.30	-483.8	-16.13%
7/30/2020	2,492.20	1,965.40	-526.8	-21.14%
7/31/2020	2,669.10	2,235.80	-433.3	-16.23%
8/1/2020	2,563.40	2,031.60	-531.9	-20.75%
8/2/2020	3,032.70	2,530.40	-502.3	-16.56%
8/3/2020	2,201.70	1,712.60	-489.2	-22.22%
8/4/2020	2,607.30	1,939.40	-668	-25.62%
8/5/2020	3,168.70	2,667.20	-501.6	-15.83%
8/6/2020	2,831.40	2,337.50	-493.9	-17.44%
8/7/2020	2,451.50	1,954.90	-496.6	-20.26%
8/8/2020	3,354.10	2,761.70	-592.4	-17.66%
8/9/2020	3,388.90	2,885.20	-503.7	-14.86%
8/10/2020	3,398.90	2,891.70	-507.3	-14.92%
8/11/2020	2,743.10	2,056.20	-686.8	-25.04%
8/12/2020	3,174.90	2,563.10	-611.8	-19.27%
8/13/2020	3,479.50	2,978.10	-501.4	-14.41%
8/14/2020	3,478.60	2,983.50	-495	-14.23%
8/15/2020	3,390.80	2,861.50	-529.4	-15.61%
8/16/2020	3,450.40	2,940.80	-509.5	-14.77%
8/17/2020	3,391.50	2,883.70	-507.8	-14.97%
8/18/2020	3,451.30	2,944.70	-506.6	-14.68%
8/19/2020	3,250.50	2,703.90	-546.7	-16.82%
8/20/2020	3,363.00	2,862.40	-500.7	-14.89%
8/21/2020	3,358.90	2,725.10	-633.8	-18.87%
8/22/2020	3,380.70	2,650.80	-729.9	-21.59%
8/23/2020	3,517.80	2,556.90	-960.9	-27.32%
8/24/2020	3,530.40	3,025.10	-505.4	-14.31%
8/25/2020	3,557.60	3,053.90	-503.7	-14.16%
8/26/2020	3,552.80	3,048.60	-504.2	-14.19%
8/27/2020	3,219.60	2,602.20	-617.5	-19.18%
8/28/2020	3,550.10	3,044.80	-505.4	-14.24%
8/29/2020	3,586.40	3,062.00	-524.4	-14.62%
8/30/2020	3,564.00	3,044.70	-519.2	-14.57%
8/31/2020	3,518.70	3,009.20	-509.5	-14.48%
9/1/2020	3,008.60	2,444.40	-564.2	-18.75%
9/2/2020	3,303.20	2,820.30	-482.9	-14.62%
9/3/2020	3,558.50	3,145.70	-412.8	-11.60%
9/4/2020	3,471.80	3,057.20	-414.7	-11.94%
9/5/2020	3,512.80	3,096.10	-416.7	-11.86%
9/6/2020	3,514.40	3,097.10	-417.3	-11.87%
9/7/2020	2,793.70	2,187.30	-606.4	-21.71%
9/8/2020	2,250.70	1,464.50	-786.3	-34.93%
9/9/2020	3,448.90	2,910.70	-538.2	-15.60%
9/10/2020	2,990.00	2,344.50	-645.4	-21.59%

9/11/2020	3,141.50	3,013.50	-128	-4.07%
9/12/2020	3,470.60	3,450.90	-19.6	-0.57%
9/13/2020	3,324.30	3,293.50	-30.8	-0.93%

TOTAL LOSS IN MCF **(192,372)**

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 16152

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
LUCID ENERGY DELAWARE, LLC	3100 Mckinnon Suite 800	Dallas, TX75201	372422	16152	C-141

OCD Reviewer	Condition
ceads	None