



January 29, 2021

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

**RE: Closure Request
Riverside ASS
Incident Number nRM2019958440
Eddy County, New Mexico**

Dear Mr. Bratcher:

Lucid Energy Group (Lucid) presents the following Closure Request detailing site assessment and soil sampling activities at the Riverside 8in. Line (Site) in Unit E, Section 15, Township 17 South, Range 27 East, in Eddy County, New Mexico under surface ownership of the Bureau of Land Management (BLM) (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 and pipeline liquids 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	Riverside 8in. Line
Company	Lucid Artesia Company
Incident Number	nRM2019958440
Location	32.835193°, -104.273068°
Estimated Date of Release	6/19/2020
Date reported to NMOCD	7/14/2020
Landowner	Bureau of Land Management
Reported to	NMOCD District II and BLM
Source of Release	Pipeline
Released Material	Natural Gas/Condensate
Released Volume	~5 bbls
Recovered Volume	~5 bbls
Net Release	~0 bbls
Nearest Waterway	Intermittent stream ~1 mile north

1
Riverside 8" Line
nRM2019958440



Depth to Groundwater	Estimated to be >100'
Nearest Domestic Water source	Greater than 1000'
Lucid Activity Dates	12/16/19, 1/13/20, 2/26/20, 3/11/20

1.0 RELEASE BACKGROUND

On June 19, 2020 Lucid operations personnel noticed pipeline liquids pooled at the surface along the Riverside 8" line. Approximately 5 barrels (Bbls) of pipeline liquids/condensate were released to the surrounding area. Due to the initial discovery yielding minimal volumes released at the surface Lucid delayed reporting this release. Once pipeline repair activities had exposed the affected pipeline soil staining and pipeline liquids were observed beneath the pipeline. Observed hydrocarbon staining and saturation was interpreted as historical releases along this pipeline. The unknown total volume loss over the lifetime of this pipeline, high karst potential, and regionally shallow groundwater necessitated the release 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 July 14, 2020 which was received and assigned Incident Number nRM2019958440 on July 17, 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 less than 50 feet below ground surface (bgs) based on the nearest groundwater well data attained from the New Mexico Office of the State Engineer (NMOSE). The United States Geological Survey groundwater database showed no wells within an applicable proximity to the Site. The closest permitted groundwater wells with depth to groundwater data, RA-07844, RA-02966, and RA-07774, are located approximately 1 mile southwest of the Site near Riverside, NM and approximately 2 miles northwest and northeast, respectively. 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 high-potential karst area. The surface soil geology of the Site is comprised mostly of the Reeves-Gypsum land-Cottonwood complex. The Reeves Gypsum complex is described as a shallow to moderately deep, reddish, fine-grained, loamy soil overlying massive gypsum beds. During excavation of the Site the Reeves-Gypsum complex was encountered at 0 to 4 feet bgs. The sub surface geology of the site is comprised of the Artesia Group, typically the Tansill formation. During the excavation alternating massive limestone beds with thinner laminations of gypsums beds and greyish-green siltstone were encountered from 4 feet to 16 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

In lieu of attaining a definitive groundwater depth via listed methods and lacking current groundwater information within reasonable proximity, Lucid remediated the Site according to the strictest closure criteria relevant to groundwater depth of <50 feet bgs, listed in NMAC 19.15.29 Table 1 Closure Criteria (Closure Criteria). Consideration of the high-potential karst area also required adherence to the strictest 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: 100 mg/kg
- Chloride: 600 mg/kg

4.0 INITIAL RESPONSE

During the response to the release, Lucid personnel scraped the surface of saturated soils in the immediate area. Due to surface geology and topography of the Site the liquids flowed slightly to the west following the pipeline right-of-way. The subject pipeline was repaired, and surface samples were collected by a Lucid EHSR technician. The locations of initial 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 are presented in Appendix E.

5.0 DELINEATION SOIL SAMPLING ACTIVITIES

On June 23, during pipeline repair activities, Lucid personnel conducted site investigative activities to evaluate the release extent and current conditions. Initial repair activities exposed the pipeline at approximately 4 feet bgs with total excavation depths at about 5 feet bgs. Surface staining from released pipeline liquids in the immediate release area was visually observed while heavier staining and saturation was observed in gypsum layers in between the massive limestone beds. 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 extent of the impacted area. Utilizing a hand trowel and/or shovel, two soil samples (B-1-C and SW-2-N-C) were collected within the repair excavation at saturated bottom and sidewall surfaces to verify the presence or absence of soil impacts. On July 14, Lucid EHSR personnel returned assess remaining surface staining and to collect sidewall and bottom soil samples (SW-1-N-C, SW-2-E-C, SW-3-S-C, SW-4-W-C, and B-5-C). On August 5, more thorough vertical and horizontal delineation of the Site began during initial remediation activities utilizing a hammer hoe and track hoe. Four test holes surrounding the current extents of the pipeline



repair excavation were excavated to 4 feet bgs (S-S-4, S-E-4, S-W-4, and S-N-4) were collected at approximately 4 feet bgs during initial remediation activities. Another soil sample (B-S-8) was collected from the bottom of the excavation at approximately 8 feet bgs. Sampled depths are approximations due to the lithology of the Tansill Formation and the safe accessibility of the excavation.

Field screening was conducted for chloride using Hach® chloride QuanTab® test strips. 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 August 5, Lucid personnel and SDR Services (SDR) began remedial excavation activities at the Site. In lieu of attaining a definitive groundwater depth via listed methods and lacking current groundwater information nearby, Lucid remediated the Site in conjunction with the strictest closure criteria relevant to groundwater depth of <50 feet bgs, listed in NMAC 19.15.29 Table 1. Consideration of the high-potential karst area also required adherence to the strictest closure criteria. The closest permitted groundwater wells with depth to groundwater data are located approximately 1 mile southwest of the Site and approximately 2 miles northwest and northeast, 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 6-7 feet bgs. A trackhoe and hammer hoe were utilized to break through the massive limestone beds, leading to variable depths throughout the excavation. Sidewalls were also extended laterally approximately 2 feet. More saturated soil was observed in the excavation sidewalls, likely due to the reduced confining pressure of the massive limestone beds removed during pipeline repair activities. The excavation was left open for three weeks to allow for remaining VOCs to flash off and determine if more hydrocarbons would be released to the surface from the confining limestone and gypsum beds. A vertical test hole was extended to 8 feet bgs at the center of the excavation bottom and sample B-S-8 was collected. Sample B-S-8 analytical results indicated that hydrocarbons and chlorides were not present at the sample depth of 8 feet bgs.

On September 4, after receipt of analytical results Lucid personnel and SDR returned to the site to collect excavation bottom and sidewall samples with the intent of using analytical results for final confirmation of remediation activities. However, saturation was again observed at the bottom and north sidewall surfaces. The excavation was expanded to a total depth of approximately 8 feet bgs and the north sidewall was laterally extended approximately 3 feet to north until staining was no longer observable.



An initial thirteen composite soil samples were collected from multiple bottom and sidewall surfaces throughout the excavation and submitted to Hall for analysis. Analytical results reported chloride levels above 600 ppm for sidewall samples SW-11-C, SW-12-C, and SW-13-C. All bottom samples collected at 8 feet bgs reported TPH levels above 100 ppm (B-6-C, B-7-C, B-8-C, B-9-C, B-10-C). These results indicated chloride and hydrocarbon impacts were likely still present at greater depths, being slowly released from confining beds of limestone and gypsum. Chlorides were also still present in sidewall surfaces on the south side of the excavation.

During the week of October 19, Lucid personnel and SDR returned to continue secondary remedial activities and again delineate a new, clean vertical depth based on the most recent analytical results. The Lucid EHSR team had also recently received a MiniRAE 3000 photoionization detector (PID) and was now able to better screen for hydrocarbons. The bottom surface was excavated to a depth of approximately 16 feet bgs and the south section was laterally extended approximately 3 feet bgs. The east side of the excavation bottom was extended to approximately 10 feet bgs due to field screenings indicating no hydrocarbon nor chloride presence. Wooden skids were used in the east bottom section to provide support to the exposed pipeline. Bottom surface samples collected from the east side of the excavation at a depth of 10ft bgs, B-22-C and B35-C, confirm that no hydrocarbon nor chloride was present at that depth. Sidewall samples, SW-24-C, SW-25-C, SW-31-C, and SW-32-C were collected at various depths along the southern excavation sidewall to more accurately represent lithologic changes. PID field screenings of samples collected indicated that hydrocarbon levels had diminished significantly at 16 feet bgs throughout the remainder of the excavation. Chloride field screenings had also returned non detect readings. Due to the permeability and occurrence of the gypsum and siltstone stratification, hydrocarbons were restricted to these areas in between the larger limestone beds causing variable distribution and difficult detection of hydrocarbon and chloride impacts.

During the week of November 23, clean locally sourced backfill material was staged onsite. Final bottom confirmation samples (B-33-C, B-34-C, B-35-C, and B-36-C) were collected from the bottom surface of the excavation to confirm that all impacts had been remediated. Minimal surface staining observed on the north and west side of the excavation was removed using a backhoe to scrape the surface. During the week of November 30, the excavation was backfilled with local material. This site was backfilled due to safety concerns regarding the integrity of the exposed pipeline and the proximity of the excavation to the right-of-way (ROW) access road managed by the BLM. Impacted material stockpiled onsite from repair activities and recently excavated material was disposed of at Lea Land Industrial Solid Waste Landfill. Lucid plans to reseed the site once seasonal temperatures have increased sufficiently to allow for effective seed germination and revegetation. Site photographs are presented in Appendix B.

A total of eighteen final composite soil samples were collected throughout the excavation during the week of October 19. Composite soil samples were collected at <20' lateral intervals encompassing ≤ 200 yd² of soil. Sidewall composite soil samples from the east section of the excavation were collected at depths between 2 and 10 feet bgs utilizing the trackhoe bucket to collect material. Sidewall composite soil samples from the west section of the excavation were collected at depths between 4 and 16 feet



bgs utilizing the trackhoe bucket to collect material. The locations of remediation samples are presented in Figure 3. Field screening was conducted for chloride using Hach® chloride QuanTab® test strips and for hydrocarbon VOCs using a calibrated 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 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 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 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 nRM2019958440. 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

A handwritten signature in black ink, appearing to read "M. Gant", is written over a horizontal line.

Michael Gant
Environmental Coordinator

cc: Jim Amos, BLM
Emily Hernandez, NMOCD
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD



Appendices:

Figure 1	Site Location Map
Figure 2	9/4/20 Sample Location Map
Figure 3	10/24/20 Sample Location Map
Table 2	Soil Analytical Results
Appendix A	Form C-141
Appendix B	Photographic Log
Appendix C	NMOSE Groundwater Data
Appendix D	Laboratory Analytical Reports
Appendix E	Volume Calculations



FIGURES

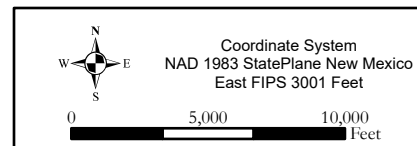
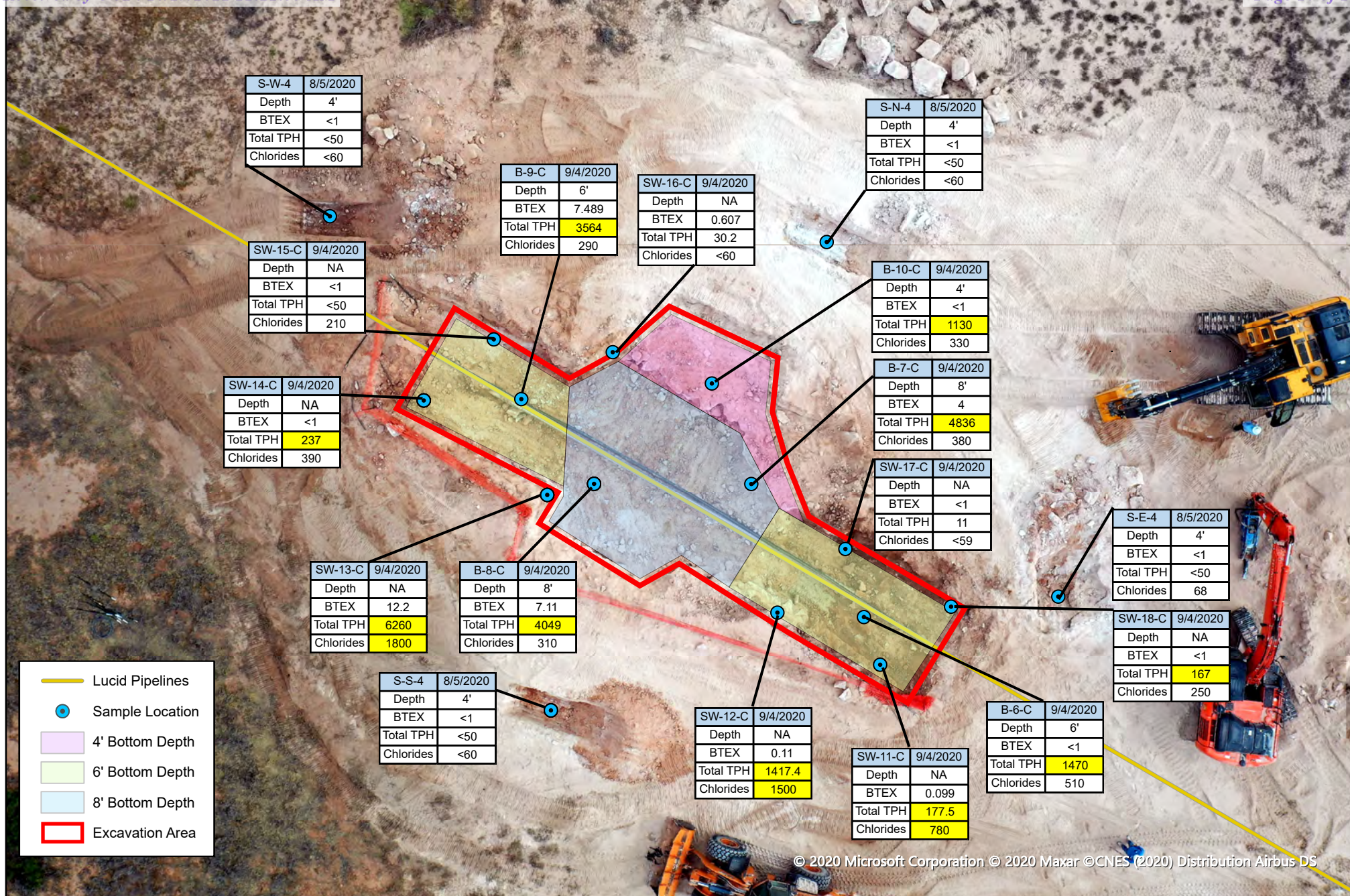


Figure 1: Site Location Map

Riverside 8" Line Release
Eddy County, NM
32.835037°, -104.272662°



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

NOTES:

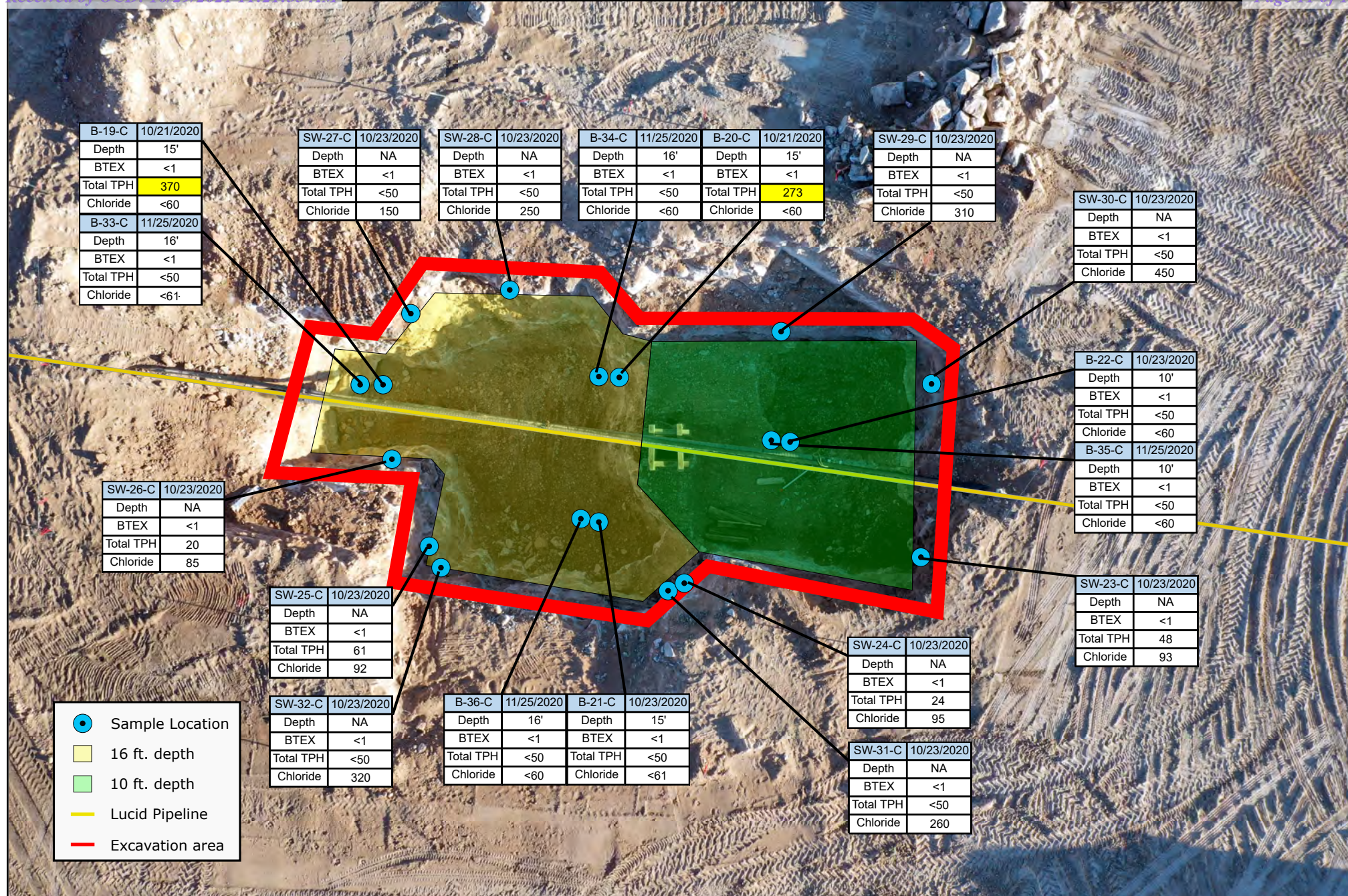
1. Analytical Values are given in mg/Kg (ppm).
2. Analytical Values in yellow shading exceed NMED RRAL's.



Coordinate System
NAD 1983 StatePlane New Mexico
East FIPS 3001 Feet

0 12.5 25 Feet

Figure 2: 9/4/20 Sample Location Map
Riverside 8" Line Release
Eddy County, NM
32.835037°, -104.272662°



NOTES:

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



Coordinate System
NAD 1983 StatePlane New Mexico
East FIPS 3001 Feet

0 12.5 25 Feet

Figure 3: 10/24/20 Sample Location Map
Riverside 8" Line Release
Eddy County, NM
32.835037°, -104.272662°



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



TABLES



Table 2
Soil Sample Analytical Results
Riverside 8" ASS
Eddy County, NM

Sample ID	Depth (feet)	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	BTEX	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Chlorides
B-1-C	4'	6/23/2020	8.7	100	40	160	308.7	3800	6300	810	10910	1600
SW-2-N-C	NA	6/23/2020	4.1	66	38	150	258.1	2800	5600	1200	9600	320
SP-1-C	NA	6/23/2020	2.1	55	34	140	231.1	3000	8200	1400	12600	3000
SW-1-N-C	NA	7/14/2020	<.12	<.23	<.23	0.62	0.62	<23	1000	500	1500	1400
SW-2-E-C	NA	7/14/2020	<.12	0.86	1.4	8.1	10.36	200	3500	1000	4700	680
SW-3-S-C	NA	7/14/2020	0.16	3.1	1.8	8.4	13.46	230	7000	3200	10430	540
SW-4-W-C	NA	7/14/2020	0.36	8.8	8.1	31	48.26	850	5100	1800	7750	880
B-5-C	NA	7/14/2020	<.11	1.7	1.2	5.8	8.70	220	7400	3100	10720	1500
S-S-4	4'	8/5/2020	<.023	<.046	<.046	<.093	<1	<4.6	<9.9	<50	<50	<60
S-E-4	4'	8/5/2020	<.025	<.050	<.050	<.099	<1	<5.0	<9.4	<47	<50	68
S-W-4	4'	8/5/2020	<.023	<.047	<.047	<.094	<1	<4.7	<9.6	<48	<50	<60
S-N-4	4'	8/5/2020	<.025	<.049	<.049	<.098	<1	<4.9	<9.5	<48	<50	<60
B-S-8	8'	8/5/2020	0.21	<.25	<.25	<.50	0.21	<25	<9.5	<48	<50	320
B-6-C	NA	9/4/2020	<.12	<.25	<.25	<.50	<1	<25	920	550	1470	510
B-7-C	NA	9/4/2020	<.12	0.56	0.54	2.9	4	36	2900	1900	4836	380
B-8-C	NA	9/4/2020	<.12	0.81	1.2	5.1	7.11	49	2600	1400	4049	310
B-9-C	NA	9/4/2020	0.049	0.94	1.3	5.2	7.49	64	2300	1200	3564	290
B-10-C	NA	9/4/2020	<.025	<.050	<.050	<.099	<1	<5.0	710	420	1130	330
SW-11-C	NA	9/4/2020	<.025	<.049	<.049	0.099	0.099	5.5	100	72	178	780
SW-12-C	NA	9/4/2020	<.025	<.049	<.049	0.11	0.11	7.4	1100	310	1417	1500
SW-13-C	NA	9/4/2020	<.12	2.3	1.7	8.2	12.2	160	4200	1900	6260	1800
SW-14-C	NA	9/4/2020	<.25	<.050	<.050	<.099	<1	<5.0	150	87	237	390
SW-15-C	NA	9/4/2020	<.025	<.049	<.049	<.099	<1	<4.9	<9.7	<49	<50	210
SW-16-C	NA	9/4/2020	<.025	0.16	0.077	0.37	0.607	6.2	24	<49	30	<60
SW-17-C	NA	9/4/2020	<.024	<.049	<.049	<.098	<1	<4.9	11	<49	11	<59
SW-18	NA	9/4/2020	<.024	<.048	<.048	<.097	<1	<4.8	110	57	167	250
B-19-C	NA	10/21/2020	<.12	<.24	<.24	0.48	<1	<24	220	150	370	<60
B-20-C	NA	10/21/2020	<.12	<.24	<.24	<.48	<1	<24	180	93	273	<60
B-21-C	NA	10/23/2020	<.025	<.049	<.049	<.098	<1	<4.9	<10	<50	<50	<61
B-22-C	NA	10/23/2020	<.024	<.049	<.049	<.098	<1	<4.9	<9.4	<47	<50	<60
SW-23-C	NA	10/23/2020	<.025	<.050	<.050	<.099	<1	<5.0	48	<44	48	93
SW-24-C	NA	10/23/2020	<.025	<.049	<.049	<.099	<1	<4.9	24	<50	24	95
SW-25-C	NA	10/23/2020	<.025	<.049	<.049	<.099	<1	<4.9	61	<48	61	92
SW-26-C	NA	10/23/2020	<.025	<.049	<.049	<.098	<1	<4.9	20	<47	20	85
SW-27-C	NA	10/23/2020	<.024	<.049	<.049	<.097	<1	<4.9	<9.6	<48	<50	150
SW-28-C	NA	10/23/2020	<.025	<.050	<.050	<.10	<1	<5.0	<9.5	<48	<50	250
SW-29-C	NA	10/23/2020	<.025	<.049	<.049	<.098	<1	<4.9	<9.3	<47	<50	310
SW-30-C	NA	10/23/2020	<.025	<.050	<.050	<.10	<1	<5.0	<9.7	<48	<50	450
SW-31-C	NA	10/23/2020	<.025	<.050	<.050	<.10	<1	<5.0	<9.6	<48	<50	260
SW-32-C	NA	10/23/2020	<.025	<.050	<.050	<.099	<1	<5.0	<9.5	<47	<50	320
B-33-C	NA	11/25/2020	<.025	<.049	<.049	<.098	<1	<4.9	<9.6	<48	<50	<61
B-34-C	NA	11/25/2020	<.024	<.048	<.048	<.097	<1	<4.8	<9.9	<50	<50	<60
B-35-C	NA	11/25/2020	<.025	<.050	<.050	<.10	<1	<5.0	<9.9	<49	<50	<60
B-36-C	NA	11/25/2020	<.025	<.049	<.049	<.098	<1	<4.9	<8.9	<44	<50	<60
NMOCD Table 1 Closure Limits			10	Total BTEX: 50				Total TPH: 100				600

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 Artesia Company	OGRID 147831
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 32.835518° Longitude -104.273590°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Riverside 8" pipeline release	Site Type Low Pressure gathering system
Date Release Discovered 7/10/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
E	15	17S	27E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: Bureau of Land Management)

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 5 Bbls	Volume Recovered (bbls) 0 Bbls
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf) 5 Mcf	Volume Recovered (Mcf) 0 Mcf
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)


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

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Michael Gant</u>	Title: <u>Environmental Coordinator</u>
Signature: <u></u>	Date: <u>7/14/2020</u>
email: <u>MGant@lucid-energy.com</u>	Telephone: <u>314-330-7876</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

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

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

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

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


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

State of New Mexico
Oil Conservation Division

Page 4

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:  Date: 1/25/2021
email: MGant@lucid-energy.com Telephone: 3143307876

OCD Only

Received by: _____ Date: _____

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:  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: _____

Incident ID	
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: 

Date: 1/25/2021

email: MGant@lucid-energy.com

Telephone: 314-330-7876

OCD Only

Received by: Chad Hensley

Date: 12/03/2021

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: 12/03/2021

Printed Name: Chad Hensley

Title: Environmental Specialist Advanced



Appendix B

Photographic Log

Appendix B: Photographic Log 06/19/20-12/1/2020
Riverside 8" Line

Pre-Excavation Looking West (6/19/20)



Initial Repair Excavation Looking East (6/23/20)



Pre-Excavation Looking East (6/19/20)



Initial Repair Excavation Aerial (7/14/20)



Appendix B: Photographic Log 06/19/20-12/5/2020
Riverside 8" Line



Remediation Excavation Aerial (8/5/20)



Remediation Excavation Bottom (11/24/20)



Remediation Excavation Aerial (11/23/20)



Remediation Excavation Looking South (11/23/20)



Appendix B: Photographic Log 06/19/20-12/5/2020
Riverside 8" Line



Remediation Excavation Looking East (11/23/20)



Remediation Excavation Looking West (11/23/20)



Remediation Excavation Looking North (11/23/20)



Backfilled/Graded Site Looking North (12/4/20)



Appendix C

Groundwater Data

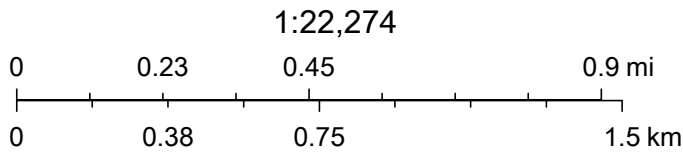
Riverside 8in. Groundwater Wells



12/9/2020, 10:24:16 AM

GIS WATERS PODs

- Active
- Pending
- OSE District Boundary
- Site Boundaries



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



Appendix D

Laboratory Analytical Reports



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

July 01, 2020

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

RE: Riverside 8"

OrderNo.: 2006C76

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/25/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2006C76

Date Reported: 7/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B.1.C

Project: Riverside 8"

Collection Date: 6/23/2020 11:00:00 AM

Lab ID: 2006C76-001

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	6300	93		mg/Kg	10	6/29/2020 8:29:45 AM
Motor Oil Range Organics (MRO)	810	460		mg/Kg	10	6/29/2020 8:29:45 AM
Surr: DNOP	0	55.1-146	S	%Rec	10	6/29/2020 8:29:45 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	1600	60		mg/Kg	20	6/29/2020 10:41:04 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	8.7	0.12		mg/Kg	5	6/29/2020 3:10:24 PM
Toluene	100	2.4		mg/Kg	50	6/30/2020 4:04:58 AM
Ethylbenzene	40	2.4		mg/Kg	50	6/30/2020 4:04:58 AM
Xylenes, Total	160	4.7		mg/Kg	50	6/30/2020 4:04:58 AM
Surr: 1,2-Dichloroethane-d4	115	70-130		%Rec	5	6/29/2020 3:10:24 PM
Surr: 4-Bromofluorobenzene	63.6	70-130	S	%Rec	5	6/29/2020 3:10:24 PM
Surr: Dibromofluoromethane	98.2	70-130		%Rec	5	6/29/2020 3:10:24 PM
Surr: Toluene-d8	105	70-130		%Rec	5	6/29/2020 3:10:24 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	3800	240		mg/Kg	50	6/30/2020 4:04:58 AM
Surr: BFB	103	70-130		%Rec	50	6/30/2020 4:04:58 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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 8

Analytical Report

Lab Order 2006C76

Date Reported: 7/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.2.N.C

Project: Riverside 8"

Collection Date: 6/23/2020 11:05:00 AM

Lab ID: 2006C76-002

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	5600	90		mg/Kg	10	6/29/2020 8:39:33 AM
Motor Oil Range Organics (MRO)	1200	450		mg/Kg	10	6/29/2020 8:39:33 AM
Surr: DNOP	0	55.1-146	S	%Rec	10	6/29/2020 8:39:33 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	320	60		mg/Kg	20	6/29/2020 11:18:06 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	4.1	0.12		mg/Kg	5	6/29/2020 4:36:54 PM
Toluene	66	2.4		mg/Kg	50	6/30/2020 4:33:36 AM
Ethylbenzene	38	2.4		mg/Kg	50	6/30/2020 4:33:36 AM
Xylenes, Total	150	4.8		mg/Kg	50	6/30/2020 4:33:36 AM
Surr: 1,2-Dichloroethane-d4	115	70-130		%Rec	5	6/29/2020 4:36:54 PM
Surr: 4-Bromofluorobenzene	63.5	70-130	S	%Rec	5	6/29/2020 4:36:54 PM
Surr: Dibromofluoromethane	108	70-130		%Rec	5	6/29/2020 4:36:54 PM
Surr: Toluene-d8	105	70-130		%Rec	5	6/29/2020 4:36:54 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	2800	240		mg/Kg	50	6/30/2020 4:33:36 AM
Surr: BFB	103	70-130		%Rec	50	6/30/2020 4:33:36 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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2006C76

Date Reported: 7/1/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SP.1.C

Project: Riverside 8"

Collection Date: 6/23/2020 12:00:00 PM

Lab ID: 2006C76-003

Matrix: SOIL

Received Date: 6/25/2020 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	8200	91		mg/Kg	10	6/29/2020 8:49:20 AM
Motor Oil Range Organics (MRO)	1400	450		mg/Kg	10	6/29/2020 8:49:20 AM
Surr: DNOP	0	55.1-146	S	%Rec	10	6/29/2020 8:49:20 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	1200	60		mg/Kg	20	6/29/2020 11:30:26 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	2.1	0.12		mg/Kg	5	6/29/2020 6:03:28 PM
Toluene	55	2.4		mg/Kg	50	6/30/2020 5:02:07 AM
Ethylbenzene	34	2.4		mg/Kg	50	6/30/2020 5:02:07 AM
Xylenes, Total	140	4.8		mg/Kg	50	6/30/2020 5:02:07 AM
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	5	6/29/2020 6:03:28 PM
Surr: 4-Bromofluorobenzene	65.9	70-130	S	%Rec	5	6/29/2020 6:03:28 PM
Surr: Dibromofluoromethane	103	70-130		%Rec	5	6/29/2020 6:03:28 PM
Surr: Toluene-d8	109	70-130		%Rec	5	6/29/2020 6:03:28 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	3000	240		mg/Kg	50	6/30/2020 5:02:07 AM
Surr: BFB	103	70-130		%Rec	50	6/30/2020 5:02:07 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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006C76

01-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside 8"

Sample ID: MB-53383	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53383	RunNo: 70007								
Prep Date: 6/29/2020	Analysis Date: 6/29/2020	SeqNo: 2432186	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53383	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53383	RunNo: 70007								
Prep Date: 6/29/2020	Analysis Date: 6/29/2020	SeqNo: 2432187	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006C76

01-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside 8"

Sample ID: LCS-53370	SampType: LCS				TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 53370				RunNo: 69983					
Prep Date: 6/28/2020	Analysis Date: 6/29/2020				SeqNo: 2431104	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	10	50.00	0	122	70	130			
Surr: DNOP	5.8		5.000		115	55.1	146			

Sample ID: MB-53370	SampType: MBLK				TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: PBS	Batch ID: 53370				RunNo: 69983					
Prep Date: 6/28/2020	Analysis Date: 6/29/2020				SeqNo: 2431105	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	14		10.00		136	55.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006C76

01-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside 8"

Sample ID: mb-53369	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 53369	RunNo: 69997								
Prep Date: 6/28/2020	Analysis Date: 6/29/2020	SeqNo: 2431673	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	0.54		0.5000		108	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.0	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.52		0.5000		105	70	130			

Sample ID: lcs-53369	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 53369	RunNo: 69997								
Prep Date: 6/28/2020	Analysis Date: 6/29/2020	SeqNo: 2431674	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.8	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID: 2006c76-002ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SW.2.N.C	Batch ID: 53369	RunNo: 69997								
Prep Date: 6/28/2020	Analysis Date: 6/29/2020	SeqNo: 2431679	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	5.9	0.12	0.9355	4.108	196	71.1	115			S
Toluene	66	0.23	0.9355	57.87	879	79.6	132			ES
Ethylbenzene	35	0.23	0.9355	31.50	399	83.8	134			ES
Xylenes, Total	140	0.47	14.03	126.8	82.9	82.4	132			E
Surr: 1,2-Dichloroethane-d4	2.7		2.339		118	70	130			
Surr: 4-Bromofluorobenzene	1.4		2.339		62.0	70	130			S
Surr: Dibromofluoromethane	2.4		2.339		102	70	130			
Surr: Toluene-d8	2.4		2.339		102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006C76

01-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside 8"

Sample ID: 2006c76-002amsd		SampType: MSD4		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: SW.2.N.C		Batch ID: 53369		RunNo: 69997						
Prep Date: 6/28/2020		Analysis Date: 6/29/2020		SeqNo: 2431680		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	5.4	0.12	0.9506	4.108	133	71.1	115	10.1	20	S
Toluene	65	0.24	0.9506	57.87	771	79.6	132	1.36	20	ES
Ethylbenzene	36	0.24	0.9506	31.50	465	83.8	134	1.92	20	ES
Xylenes, Total	150	0.48	14.26	126.8	128	82.4	132	4.64	20	E
Surr: 1,2-Dichloroethane-d4	2.7		2.376		114	70	130	0	0	
Surr: 4-Bromofluorobenzene	1.6		2.376		66.8	70	130	0	0	S
Surr: Dibromofluoromethane	2.4		2.376		102	70	130	0	0	
Surr: Toluene-d8	2.6		2.376		108	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 7 of 8

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2006C76

01-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside 8"

Sample ID: mb-53369	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 53369	RunNo: 69997								
Prep Date: 6/28/2020	Analysis Date: 6/29/2020	SeqNo: 2431702		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	490		500.0		98.4	70	130			

Sample ID: lcs-53369	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 53369	RunNo: 69997								
Prep Date: 6/28/2020	Analysis Date: 6/29/2020	SeqNo: 2431703		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	25.00	0	76.4	70	130			
Surr: BFB	480		500.0		96.3	70	130			

Sample ID: 2006c76-001ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: B.1.C	Batch ID: 53369	RunNo: 69997								
Prep Date: 6/28/2020	Analysis Date: 6/29/2020	SeqNo: 2431706		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3900	24	119.7	3622	228	70	130			ES
Surr: BFB	2800		2395		119	70	130			

Sample ID: 2006c76-001amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: B.1.C	Batch ID: 53369	RunNo: 69997								
Prep Date: 6/28/2020	Analysis Date: 6/29/2020	SeqNo: 2431707		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4100	24	117.7	3622	377	70	130	4.29	20	ES
Surr: BFB	2700		2354		117	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: Lucid Energy Delaware

Work Order Number: 2006C76

RcptNo: 1

Received By: Juan Rojas

6/25/2020 9:40:00 AM

Completed By: Juan Rojas

6/25/2020 10:17:54 AM

Reviewed By: my 06/25/20

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 $>0^{\circ}\text{C}$ 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: SP7 6.25.20

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good				
2	2.3	Good				

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Chain-of-Custody Record									
Client: <u>Lucid Energy</u>		Turn-Around Time: <u>5 day</u>							
Mailing Address: <u>on file</u>		<input checked="" type="checkbox"/> Standard		<input type="checkbox"/> Rush					
		Project Name: <u>Riverside 8"</u>							
Phone #: <u>3143307876</u>		Project #:							
email or Fax#: <u>mgant@lucid-energy.com</u>		Project Manager:							
QA/QC Package:		Sampler: <u>MG</u>							
<input type="checkbox"/> Standard		Accreditation: <input type="checkbox"/> Az Compliance		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		# of Coolers: <u>2</u>			
<input type="checkbox"/> NELAC		<input type="checkbox"/> Other				Cooler Temp (including CF): <u>1.6+0=1.6</u> (°C)			
<input type="checkbox"/> EDD (Type)						Container Type and #			Preservative Type
Date	Time	Matrix	Sample Name						
<u>6/23</u>	<u>1100</u>	<u>S</u>	<u>B.I.C</u>			<u>4oz Soil</u>		<u>FCE</u>	<u>2.3+0=2.3</u> <u>HEAL No.</u> <u>7006076</u>
<u>1</u>	<u>1105</u>	<u>1</u>	<u>SWR-N.C</u>			<u>1</u>		<u>1</u>	<u>-001</u>
<u>1</u>	<u>1200</u>	<u>1</u>	<u>SP.I.C</u>			<u>1</u>		<u>1</u>	<u>-002</u>
									<u>-003</u>
Date:	Time:	Relinquished by:			Received by:	Via:	Date	Time	
<u>6/24</u>	<u>1430</u>	<u>[Signature]</u>			<u>[Signature]</u>		<u>6/24/20</u>	<u>1430</u>	
Date:	Time:	Relinquished by:			Received by:	Via:	Date	Time	
<u>6/24/24</u>	<u>1900</u>	<u>[Signature]</u>			<u>[Signature]</u>		<u>6/25/20</u>	<u>9:40</u>	

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



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

July 22, 2020

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

RE: Riverside

OrderNo.: 2007726

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 7/15/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2007726

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.1.N.C

Project: Riverside

Collection Date: 7/14/2020 11:30:00 AM

Lab ID: 2007726-001

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	1000	20		mg/Kg	2	7/19/2020 6:09:09 AM
Motor Oil Range Organics (MRO)	500	98		mg/Kg	2	7/19/2020 6:09:09 AM
Surr: DNOP	94.2	55.1-146		%Rec	2	7/19/2020 6:09:09 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	1400	59		mg/Kg	20	7/18/2020 12:29:51 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.12		mg/Kg	5	7/17/2020 1:27:34 PM
Toluene	ND	0.23		mg/Kg	5	7/17/2020 1:27:34 PM
Ethylbenzene	ND	0.23		mg/Kg	5	7/17/2020 1:27:34 PM
Xylenes, Total	0.62	0.46		mg/Kg	5	7/17/2020 1:27:34 PM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%Rec	5	7/17/2020 1:27:34 PM
Surr: 4-Bromofluorobenzene	91.1	70-130		%Rec	5	7/17/2020 1:27:34 PM
Surr: Dibromofluoromethane	96.1	70-130		%Rec	5	7/17/2020 1:27:34 PM
Surr: Toluene-d8	93.7	70-130		%Rec	5	7/17/2020 1:27:34 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	ND	23		mg/Kg	5	7/17/2020 1:27:34 PM
Surr: BFB	109	70-130		%Rec	5	7/17/2020 1:27:34 PM

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

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

Page 1 of 12

Analytical Report

Lab Order 2007726

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.2.E.C

Project: Riverside

Collection Date: 7/14/2020 11:32:00 AM

Lab ID: 2007726-002

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	3500	96		mg/Kg	10	7/17/2020 5:54:30 PM
Motor Oil Range Organics (MRO)	1000	480		mg/Kg	10	7/17/2020 5:54:30 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/17/2020 5:54:30 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	680	60		mg/Kg	20	7/18/2020 12:42:11 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.12		mg/Kg	5	7/17/2020 3:57:53 PM
Toluene	0.86	0.24		mg/Kg	5	7/17/2020 3:57:53 PM
Ethylbenzene	1.4	0.24		mg/Kg	5	7/17/2020 3:57:53 PM
Xylenes, Total	8.1	0.48		mg/Kg	5	7/17/2020 3:57:53 PM
Surr: 1,2-Dichloroethane-d4	89.5	70-130		%Rec	5	7/17/2020 3:57:53 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	5	7/17/2020 3:57:53 PM
Surr: Dibromofluoromethane	94.5	70-130		%Rec	5	7/17/2020 3:57:53 PM
Surr: Toluene-d8	96.4	70-130		%Rec	5	7/17/2020 3:57:53 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	200	24		mg/Kg	5	7/17/2020 3:57:53 PM
Surr: BFB	110	70-130		%Rec	5	7/17/2020 3:57:53 PM

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

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

Page 2 of 12

Analytical Report

Lab Order 2007726

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.3.S.C

Project: Riverside

Collection Date: 7/14/2020 11:35:00 AM

Lab ID: 2007726-003

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	7000	94		mg/Kg	10	7/17/2020 6:04:55 PM
Motor Oil Range Organics (MRO)	3200	470		mg/Kg	10	7/17/2020 6:04:55 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/17/2020 6:04:55 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	540	60		mg/Kg	20	7/18/2020 12:54:32 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	0.16	0.12		mg/Kg	5	7/17/2020 4:28:00 PM
Toluene	3.1	0.24		mg/Kg	5	7/17/2020 4:28:00 PM
Ethylbenzene	1.8	0.24		mg/Kg	5	7/17/2020 4:28:00 PM
Xylenes, Total	8.4	0.47		mg/Kg	5	7/17/2020 4:28:00 PM
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%Rec	5	7/17/2020 4:28:00 PM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	5	7/17/2020 4:28:00 PM
Surr: Dibromofluoromethane	97.7	70-130		%Rec	5	7/17/2020 4:28:00 PM
Surr: Toluene-d8	95.0	70-130		%Rec	5	7/17/2020 4:28:00 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	230	24		mg/Kg	5	7/17/2020 4:28:00 PM
Surr: BFB	106	70-130		%Rec	5	7/17/2020 4:28:00 PM

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

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

Analytical Report

Lab Order 2007726

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.4.W.C

Project: Riverside

Collection Date: 7/14/2020 11:40:00 AM

Lab ID: 2007726-004

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	5100	91		mg/Kg	10	7/17/2020 8:06:42 PM
Motor Oil Range Organics (MRO)	1800	450		mg/Kg	10	7/17/2020 8:06:42 PM
Surr: DNOP	0	55.1-146	S	%Rec	10	7/17/2020 8:06:42 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	880	60		mg/Kg	20	7/18/2020 1:06:51 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	0.36	0.12		mg/Kg	5	7/17/2020 4:58:03 PM
Toluene	8.8	0.25		mg/Kg	5	7/17/2020 4:58:03 PM
Ethylbenzene	8.1	0.25		mg/Kg	5	7/17/2020 4:58:03 PM
Xylenes, Total	31	0.50		mg/Kg	5	7/17/2020 4:58:03 PM
Surr: 1,2-Dichloroethane-d4	88.9	70-130		%Rec	5	7/17/2020 4:58:03 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	5	7/17/2020 4:58:03 PM
Surr: Dibromofluoromethane	92.7	70-130		%Rec	5	7/17/2020 4:58:03 PM
Surr: Toluene-d8	94.8	70-130		%Rec	5	7/17/2020 4:58:03 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	850	25		mg/Kg	5	7/17/2020 4:58:03 PM
Surr: BFB	99.2	70-130		%Rec	5	7/17/2020 4:58:03 PM

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

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

Analytical Report

Lab Order 2007726

Date Reported: 7/22/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B.5.C

Project: Riverside

Collection Date: 7/14/2020 11:45:00 AM

Lab ID: 2007726-005

Matrix: SOIL

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

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	7400	190		mg/Kg	20	7/19/2020 9:47:08 AM
Motor Oil Range Organics (MRO)	3100	970		mg/Kg	20	7/19/2020 9:47:08 AM
Surr: DNOP	0	55.1-146	S	%Rec	20	7/19/2020 9:47:08 AM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	2100	150		mg/Kg	50	7/19/2020 11:02:55 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.11		mg/Kg	5	7/17/2020 6:28:23 PM
Toluene	1.7	0.23		mg/Kg	5	7/17/2020 6:28:23 PM
Ethylbenzene	1.2	0.23		mg/Kg	5	7/17/2020 6:28:23 PM
Xylenes, Total	5.8	0.46		mg/Kg	5	7/17/2020 6:28:23 PM
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%Rec	5	7/17/2020 6:28:23 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	5	7/17/2020 6:28:23 PM
Surr: Dibromofluoromethane	96.0	70-130		%Rec	5	7/17/2020 6:28:23 PM
Surr: Toluene-d8	95.7	70-130		%Rec	5	7/17/2020 6:28:23 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	220	23		mg/Kg	5	7/17/2020 6:28:23 PM
Surr: BFB	111	70-130		%Rec	5	7/17/2020 6:28:23 PM

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

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2007726

22-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: MB-53800	SampType: mbk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 53800	RunNo: 70443								
Prep Date: 7/18/2020	Analysis Date: 7/18/2020	SeqNo: 2449188	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-53800	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 53800	RunNo: 70443								
Prep Date: 7/18/2020	Analysis Date: 7/18/2020	SeqNo: 2449189	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 6 of 12

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2007726

22-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside

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

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

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

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

Sample ID: LCS-53748	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 53748	RunNo: 70428								
Prep Date: 7/16/2020	Analysis Date: 7/17/2020	SeqNo: 2448823 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.1	70	130			
Surr: DNOP	4.7		5.000		93.1	55.1	146			

Sample ID: MB-53748	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53748	RunNo: 70428								
Prep Date: 7/16/2020	Analysis Date: 7/17/2020	SeqNo: 2448824 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2007726

22-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: MB-53748	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 53748	RunNo: 70428								
Prep Date: 7/16/2020	Analysis Date: 7/17/2020	SeqNo: 2448824	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.5	55.1	146			

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

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2007726

22-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside

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

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

Sample ID: mb-53742	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 53742	RunNo: 70437								
Prep Date: 7/15/2020	Analysis Date: 7/17/2020	SeqNo: 2448594	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	0.51		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.8	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.48		0.5000		96.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2007726

22-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: Ics-53742	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 53742	RunNo: 70437								
Prep Date: 7/15/2020	Analysis Date: 7/17/2020	SeqNo: 2448595	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.3	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.0	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.49		0.5000		97.1	70	130			

Sample ID: 2007726-004ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SW.4.W.C	Batch ID: 53742	RunNo: 70437								
Prep Date: 7/15/2020	Analysis Date: 7/17/2020	SeqNo: 2448597	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.12	0.9302	0.3562	95.9	71.1	115			
Toluene	9.2	0.23	0.9302	8.837	38.5	79.6	132			S
Ethylbenzene	8.7	0.23	0.9302	8.119	66.9	83.8	134			S
Xylenes, Total	32	0.47	2.791	31.23	44.2	82.4	132			S
Surr: 1,2-Dichloroethane-d4	2.1		2.326		90.1	70	130			
Surr: 4-Bromofluorobenzene	2.6		2.326		111	70	130			
Surr: Dibromofluoromethane	2.2		2.326		94.8	70	130			
Surr: Toluene-d8	2.2		2.326		94.4	70	130			

Sample ID: 2007726-004amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SW.4.W.C	Batch ID: 53742	RunNo: 70437								
Prep Date: 7/15/2020	Analysis Date: 7/17/2020	SeqNo: 2448598	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.4	0.12	0.9930	0.3562	108	71.1	115	13.3	20	
Toluene	10	0.25	0.9930	8.837	153	79.6	132	11.9	20	S
Ethylbenzene	9.9	0.25	0.9930	8.119	182	83.8	134	12.7	20	S
Xylenes, Total	37	0.50	2.979	31.23	177	82.4	132	11.7	20	S
Surr: 1,2-Dichloroethane-d4	2.3		2.483		91.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	2.5		2.483		102	70	130	0	0	
Surr: Dibromofluoromethane	2.3		2.483		91.7	70	130	0	0	
Surr: Toluene-d8	2.3		2.483		93.5	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2007726

22-Jul-20

Client: Lucid Energy Delaware**Project:** Riverside

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

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

Sample ID: mb-53742	SampType: MBLK		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: PBS	Batch ID: 53742		RunNo: 70437							
Prep Date: 7/15/2020	Analysis Date: 7/17/2020		SeqNo: 2448615		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	550		500.0		110	70	130			

Sample ID: lcs-53742	SampType: LCS		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: LCSS	Batch ID: 53742		RunNo: 70437							
Prep Date: 7/15/2020	Analysis Date: 7/17/2020		SeqNo: 2448616		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	84.8	70	130			
Surr: BFB	540		500.0		107	70	130			

Sample ID: 2007726-005ams	SampType: MS		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: B.5.C	Batch ID: 53742		RunNo: 70437							
Prep Date: 7/15/2020	Analysis Date: 7/17/2020		SeqNo: 2448619		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	220	25	24.58	215.3	25.1	70	130			S
Surr: BFB	2800		2458		112	70	130			

Sample ID: 2007726-005amsd	SampType: MSD		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: B.5.C	Batch ID: 53742		RunNo: 70437							
Prep Date: 7/15/2020	Analysis Date: 7/17/2020		SeqNo: 2448620		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2007726
22-Jul-20

Client: Lucid Energy Delaware
Project: Riverside

Sample ID: 2007726-005amsd		SampType: MSD		TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: B.5.C		Batch ID: 53742		RunNo: 70437						
Prep Date: 7/15/2020		Analysis Date: 7/17/2020		SeqNo: 2448620		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	220	24	23.81	215.3	8.26	70	130	1.91	20	S
Surr: BFB	2700		2381		113	70	130	0	0	

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit



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

Sample Log-In Check List

Client Name: Lucid Energy Delaware

Work Order Number: 2007726

RcptNo: 1

Received By: Juan Rojas

7/15/2020 9:30:00 AM

Completed By: Juan Rojas

7/15/2020 10:17:09 AM

Reviewed By:

gm 7/15/20

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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: DAD 7/15/20

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good				



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

August 14, 2020

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

RE: Riverside

OrderNo.: 2008274

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/6/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2008274

Date Reported: 8/14/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: S.S.4'

Project: Riverside

Collection Date: 8/5/2020

Lab ID: 2008274-001

Matrix: SOIL

Received Date: 8/6/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/11/2020 3:01:47 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/11/2020 3:01:47 AM
Surr: DNOP	90.0	30.4-154		%Rec	1	8/11/2020 3:01:47 AM
EPA METHOD 300.0: ANIONS						Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/12/2020 2:37:23 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	ND	0.023		mg/Kg	1	8/11/2020 6:18:16 AM
Toluene	ND	0.046		mg/Kg	1	8/11/2020 6:18:16 AM
Ethylbenzene	ND	0.046		mg/Kg	1	8/11/2020 6:18:16 AM
Xylenes, Total	ND	0.093		mg/Kg	1	8/11/2020 6:18:16 AM
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%Rec	1	8/11/2020 6:18:16 AM
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	8/11/2020 6:18:16 AM
Surr: Dibromofluoromethane	108	70-130		%Rec	1	8/11/2020 6:18:16 AM
Surr: Toluene-d8	95.5	70-130		%Rec	1	8/11/2020 6:18:16 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/11/2020 6:18:16 AM
Surr: BFB	99.7	70-130		%Rec	1	8/11/2020 6:18:16 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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2008274

Date Reported: 8/14/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: S.E.4

Project: Riverside

Collection Date: 8/5/2020

Lab ID: 2008274-002

Matrix: SOIL

Received Date: 8/6/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/11/2020 3:25:55 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/11/2020 3:25:55 AM
Surr: DNOP	97.1	30.4-154		%Rec	1	8/11/2020 3:25:55 AM
EPA METHOD 300.0: ANIONS						Analyst: CJS
Chloride	68	60		mg/Kg	20	8/12/2020 3:14:25 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	8/12/2020 1:53:24 PM
Toluene	ND	0.050		mg/Kg	1	8/12/2020 1:53:24 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/12/2020 1:53:24 PM
Xylenes, Total	ND	0.099		mg/Kg	1	8/12/2020 1:53:24 PM
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%Rec	1	8/12/2020 1:53:24 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	8/12/2020 1:53:24 PM
Surr: Dibromofluoromethane	112	70-130		%Rec	1	8/12/2020 1:53:24 PM
Surr: Toluene-d8	99.5	70-130		%Rec	1	8/12/2020 1:53:24 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/12/2020 1:53:24 PM
Surr: BFB	105	70-130		%Rec	1	8/12/2020 1:53:24 PM

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

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

Analytical Report

Lab Order 2008274

Date Reported: 8/14/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: S.W.4'

Project: Riverside

Collection Date: 8/5/2020

Lab ID: 2008274-003

Matrix: SOIL

Received Date: 8/6/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/11/2020 3:50:06 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/11/2020 3:50:06 AM
Surr: DNOP	94.4	30.4-154		%Rec	1	8/11/2020 3:50:06 AM
EPA METHOD 300.0: ANIONS						Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/12/2020 3:26:46 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	ND	0.023		mg/Kg	1	8/11/2020 7:15:32 AM
Toluene	ND	0.047		mg/Kg	1	8/11/2020 7:15:32 AM
Ethylbenzene	ND	0.047		mg/Kg	1	8/11/2020 7:15:32 AM
Xylenes, Total	ND	0.094		mg/Kg	1	8/11/2020 7:15:32 AM
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%Rec	1	8/11/2020 7:15:32 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	8/11/2020 7:15:32 AM
Surr: Dibromofluoromethane	106	70-130		%Rec	1	8/11/2020 7:15:32 AM
Surr: Toluene-d8	95.7	70-130		%Rec	1	8/11/2020 7:15:32 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/11/2020 7:15:32 AM
Surr: BFB	103	70-130		%Rec	1	8/11/2020 7:15:32 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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2008274

Date Reported: 8/14/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: S.N.4'

Project: Riverside

Collection Date: 8/5/2020

Lab ID: 2008274-004

Matrix: SOIL

Received Date: 8/6/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/11/2020 3:46:38 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/11/2020 3:46:38 PM
Surr: DNOP	93.1	30.4-154		%Rec	1	8/11/2020 3:46:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/10/2020 12:59:58 PM
Surr: BFB	101	75.3-105		%Rec	1	8/10/2020 12:59:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	8/10/2020 12:59:58 PM
Toluene	ND	0.049		mg/Kg	1	8/10/2020 12:59:58 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/10/2020 12:59:58 PM
Xylenes, Total	ND	0.098		mg/Kg	1	8/10/2020 12:59:58 PM
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	8/10/2020 12:59:58 PM
EPA METHOD 300.0: ANIONS						Analyst: CJS
Chloride	ND	60		mg/Kg	20	8/12/2020 4:03:49 PM

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

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

Analytical Report

Lab Order 2008274

Date Reported: 8/14/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B.S.8'

Project: Riverside

Collection Date: 8/5/2020

Lab ID: 2008274-005

Matrix: SOIL

Received Date: 8/6/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/11/2020 4:10:35 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/11/2020 4:10:35 PM
Surr: DNOP	96.2	30.4-154		%Rec	1	8/11/2020 4:10:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	8/10/2020 1:23:32 PM
Surr: BFB	103	75.3-105		%Rec	5	8/10/2020 1:23:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.21	0.12		mg/Kg	5	8/10/2020 1:23:32 PM
Toluene	ND	0.25		mg/Kg	5	8/10/2020 1:23:32 PM
Ethylbenzene	ND	0.25		mg/Kg	5	8/10/2020 1:23:32 PM
Xylenes, Total	ND	0.50		mg/Kg	5	8/10/2020 1:23:32 PM
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	5	8/10/2020 1:23:32 PM
EPA METHOD 300.0: ANIONS						Analyst: CJS
Chloride	320	60		mg/Kg	20	8/12/2020 4:16:11 PM

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

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008274

14-Aug-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: LCS-54363	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSS	Batch ID: 54363			RunNo: 71037						
Prep Date: 8/12/2020	Analysis Date: 8/12/2020			SeqNo: 2475462		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Sample ID: MB-54363	SampType: mbk			TestCode: EPA Method 300.0: Anions						
Client ID: PBS	Batch ID: 54363			RunNo: 71037						
Prep Date: 8/12/2020	Analysis Date: 8/12/2020			SeqNo: 2475463		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008274

14-Aug-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: LCS-54255	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 54255			RunNo: 70976						
Prep Date: 8/7/2020	Analysis Date: 8/10/2020			SeqNo: 2472908	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.3	70	130			
Surr: DNOP	5.0		5.000		100	30.4	154			

Sample ID: MB-54255	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 54255			RunNo: 70976						
Prep Date: 8/7/2020	Analysis Date: 8/11/2020			SeqNo: 2472909	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	5.7		10.00		56.6	30.4	154			

Sample ID: LCS-54307	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 54307			RunNo: 70976						
Prep Date: 8/10/2020	Analysis Date: 8/11/2020			SeqNo: 2473721	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	30.4	154			

Sample ID: MB-54307	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 54307			RunNo: 70976						
Prep Date: 8/10/2020	Analysis Date: 8/11/2020			SeqNo: 2473722	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		99.2	30.4	154			

Sample ID: MB-54302	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 54302			RunNo: 71006						
Prep Date: 8/10/2020	Analysis Date: 8/11/2020			SeqNo: 2474010	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	9.5		10.00		94.6	30.4	154			

Sample ID: LCS-54302	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 54302			RunNo: 71006						
Prep Date: 8/10/2020	Analysis Date: 8/11/2020			SeqNo: 2474011	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008274

14-Aug-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: LCS-54302	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 54302			RunNo: 71006						
Prep Date: 8/10/2020	Analysis Date: 8/11/2020			SeqNo: 2474011	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	4.8		5.000		96.5	30.4	154			

Sample ID: LCS-54310	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 54310			RunNo: 70976						
Prep Date: 8/10/2020	Analysis Date: 8/12/2020			SeqNo: 2474236	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.1	30.4	154			

Sample ID: MB-54310	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 54310			RunNo: 70976						
Prep Date: 8/10/2020	Analysis Date: 8/12/2020			SeqNo: 2474237	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.4	30.4	154			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008274

14-Aug-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: mb-54268	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 54268	RunNo: 70938								
Prep Date: 8/7/2020	Analysis Date: 8/9/2020	SeqNo: 2470936 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	75.3	105			

Sample ID: lcs-54268	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 54268	RunNo: 70938								
Prep Date: 8/7/2020	Analysis Date: 8/9/2020	SeqNo: 2470937 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.1	72.5	106			
Surr: BFB	1100		1000		108	75.3	105			S

Sample ID: mb-54276	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 54276	RunNo: 70956								
Prep Date: 8/8/2020	Analysis Date: 8/10/2020	SeqNo: 2471833 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	75.3	105			

Sample ID: lcs-54276	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 54276	RunNo: 70956								
Prep Date: 8/8/2020	Analysis Date: 8/10/2020	SeqNo: 2471834 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		110	75.3	105			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008274

14-Aug-20

Client: Lucid Energy Delaware

Project: Riverside

Sample ID: mb-54268	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 54268	RunNo: 70938								
Prep Date: 8/7/2020	Analysis Date: 8/9/2020	SeqNo: 2471011	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID: LCS-54268	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 54268	RunNo: 70938								
Prep Date: 8/7/2020	Analysis Date: 8/9/2020	SeqNo: 2471012	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.4	80	120			
Toluene	0.96	0.050	1.000	0	95.6	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.2	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID: mb-54276	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 54276	RunNo: 70956								
Prep Date: 8/8/2020	Analysis Date: 8/10/2020	SeqNo: 2471880	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID: LCS-54276	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 54276	RunNo: 70956								
Prep Date: 8/8/2020	Analysis Date: 8/10/2020	SeqNo: 2471881	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008274

14-Aug-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: lcs-54252	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 54252	RunNo: 70994								
Prep Date: 8/6/2020	Analysis Date: 8/10/2020	SeqNo: 2473427	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	90.6	80	120			
Toluene	1.0	0.050	1.000	0	99.8	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.1	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	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		100	70	130			
Surr: Toluene-d8	0.48		0.5000		95.2	70	130			

Sample ID: mb-54252	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 54252	RunNo: 70994								
Prep Date: 8/6/2020	Analysis Date: 8/10/2020	SeqNo: 2473428	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	0.49		0.5000		98.1	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.4	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.48		0.5000		96.5	70	130			

Sample ID: mb-54278	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 54278	RunNo: 70994								
Prep Date: 8/8/2020	Analysis Date: 8/11/2020	SeqNo: 2473459	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		95.0	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.47		0.5000		94.7	70	130			

Sample ID: lcs-54278	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 54278	RunNo: 70994								
Prep Date: 8/8/2020	Analysis Date: 8/11/2020	SeqNo: 2473460	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2008274

14-Aug-20

Client: Lucid Energy Delaware

Project: Riverside

Sample ID: Ics-54278	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 54278	RunNo: 70994								
Prep Date: 8/8/2020	Analysis Date: 8/11/2020	SeqNo: 2473460	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.46		0.5000		92.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008274

14-Aug-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: ics-54252	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 54252			RunNo: 70994						
Prep Date: 8/6/2020	Analysis Date: 8/10/2020			SeqNo: 2473464	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	88.3	70	130			
Surr: BFB	500		500.0		99.3	70	130			

Sample ID: mb-54252	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 54252			RunNo: 70994						
Prep Date: 8/6/2020	Analysis Date: 8/10/2020			SeqNo: 2473465	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		101	70	130			

Sample ID: ics-54278	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 54278			RunNo: 70994						
Prep Date: 8/8/2020	Analysis Date: 8/11/2020			SeqNo: 2473496	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		99.3	70	130			

Sample ID: mb-54278	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 54278			RunNo: 70994						
Prep Date: 8/8/2020	Analysis Date: 8/11/2020			SeqNo: 2473497	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	510		500.0		102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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: 2008274

RcptNo: 1

Received By: Juan Rojas

8/6/2020 8:00:00 AM

Completed By: Juan Rojas

8/6/2020 10:32:34 AM

Reviewed By: *mg*

08/06/20

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 $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐ Not Frozen
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: *SPA 8.6.20*

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good				
2	2.1	Good				
3	-0.4	Good				

Chain-of-Custody Record

Client: Lucid Energy

Mailing Address: on file

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: 5 day Turn

☒ Standard ☐ Rush

Project Name: Riverside

Project #: _____

Project Manager: Michael Gant

Sampler: _____

On Ice: ☒ Yes ☐ No

of Coolers: 3

Cooler Temp (including CF): See Remarks (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
8/5/20		S	S.S. 4'	4ea Sealed Jar	ICE	7008274
			S.E. 4'			-001
			S.W. 4'			-002
			S.N. 4'			-003
			B.S. 8'			-004
						-005

Analysis Request

BTEX / MTBE / TMBs (8021)	X
TPH:8015D(GRO / DRO / MRO)	X
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	X
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Date:	Time:	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
8/5/20	1300	<u>[Signature]</u>	8/5/20	1300	<u>[Signature]</u>	8/5/20	1300
Date:	Time:	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
8/5/20	1900	<u>[Signature]</u>	8/6/20	8:00	<u>[Signature]</u>	8/6/20	8:00

Remarks: 3.3-0=3.3
2.1-0=2.1
-0.4-0=-0.4



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

September 16, 2020

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

RE: Riverside

OrderNo.: 2009396

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 13 sample(s) on 9/5/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B.6.C

Project: Riverside

Collection Date: 9/4/2020 8:31:00 AM

Lab ID: 2009396-001

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	920	94		mg/Kg	10	9/11/2020 1:53:33 AM
Motor Oil Range Organics (MRO)	550	470		mg/Kg	10	9/11/2020 1:53:33 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	9/11/2020 1:53:33 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	9/11/2020 10:09:47 PM
Surr: BFB	105	75.3-105		%Rec	5	9/11/2020 10:09:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	9/11/2020 10:09:47 PM
Toluene	ND	0.25		mg/Kg	5	9/11/2020 10:09:47 PM
Ethylbenzene	ND	0.25		mg/Kg	5	9/11/2020 10:09:47 PM
Xylenes, Total	0.89	0.50		mg/Kg	5	9/11/2020 10:09:47 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	5	9/11/2020 10:09:47 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	510	60		mg/Kg	20	9/14/2020 7:04:37 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B.7.C

Project: Riverside

Collection Date: 9/4/2020 8:33:00 AM

Lab ID: 2009396-002

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	2900	94		mg/Kg	10	9/11/2020 2:17:28 AM
Motor Oil Range Organics (MRO)	1900	470		mg/Kg	10	9/11/2020 2:17:28 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	9/11/2020 2:17:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	36	25		mg/Kg	5	9/11/2020 10:33:15 PM
Surr: BFB	120	75.3-105	S	%Rec	5	9/11/2020 10:33:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	9/11/2020 10:33:15 PM
Toluene	0.56	0.25		mg/Kg	5	9/11/2020 10:33:15 PM
Ethylbenzene	0.54	0.25		mg/Kg	5	9/11/2020 10:33:15 PM
Xylenes, Total	2.9	0.50		mg/Kg	5	9/11/2020 10:33:15 PM
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	5	9/11/2020 10:33:15 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	380	60		mg/Kg	20	9/14/2020 8:06:21 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B.8.C

Project: Riverside

Collection Date: 9/4/2020 8:35:00 AM

Lab ID: 2009396-003

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	2600	94		mg/Kg	10	9/11/2020 2:41:28 AM
Motor Oil Range Organics (MRO)	1400	470		mg/Kg	10	9/11/2020 2:41:28 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	9/11/2020 2:41:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	49	25		mg/Kg	5	9/11/2020 10:56:41 PM
Surr: BFB	139	75.3-105	S	%Rec	5	9/11/2020 10:56:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	9/11/2020 10:56:41 PM
Toluene	0.81	0.25		mg/Kg	5	9/11/2020 10:56:41 PM
Ethylbenzene	1.2	0.25		mg/Kg	5	9/11/2020 10:56:41 PM
Xylenes, Total	5.1	0.49		mg/Kg	5	9/11/2020 10:56:41 PM
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	5	9/11/2020 10:56:41 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	310	60		mg/Kg	20	9/14/2020 8:18:41 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B.9.C

Project: Riverside

Collection Date: 9/4/2020 8:38:00 AM

Lab ID: 2009396-004

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	2300	90		mg/Kg	10	9/11/2020 3:05:21 AM
Motor Oil Range Organics (MRO)	1200	450		mg/Kg	10	9/11/2020 3:05:21 AM
Surr: DNOP	0	30.4-154	S	%Rec	10	9/11/2020 3:05:21 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	64	5.0		mg/Kg	1	9/11/2020 11:20:05 PM
Surr: BFB	424	75.3-105	S	%Rec	1	9/11/2020 11:20:05 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	0.049	0.025		mg/Kg	1	9/11/2020 11:20:05 PM
Toluene	0.94	0.050		mg/Kg	1	9/11/2020 11:20:05 PM
Ethylbenzene	1.3	0.050		mg/Kg	1	9/11/2020 11:20:05 PM
Xylenes, Total	5.2	0.099		mg/Kg	1	9/11/2020 11:20:05 PM
Surr: 4-Bromofluorobenzene	145	80-120	S	%Rec	1	9/11/2020 11:20:05 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	290	60		mg/Kg	20	9/14/2020 8:31:02 PM

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

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

Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B.10.C

Project: Riverside

Collection Date: 9/4/2020 8:45:00 AM

Lab ID: 2009396-005

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	710	9.9		mg/Kg	1	9/11/2020 3:29:24 AM
Motor Oil Range Organics (MRO)	420	50		mg/Kg	1	9/11/2020 3:29:24 AM
Surr: DNOP	64.6	30.4-154		%Rec	1	9/11/2020 3:29:24 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/11/2020 11:43:31 PM
Surr: BFB	95.0	75.3-105		%Rec	1	9/11/2020 11:43:31 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	9/11/2020 11:43:31 PM
Toluene	ND	0.050		mg/Kg	1	9/11/2020 11:43:31 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/11/2020 11:43:31 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/11/2020 11:43:31 PM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	9/11/2020 11:43:31 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	330	60		mg/Kg	20	9/14/2020 8:43:22 PM

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

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

Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.11.C

Project: Riverside

Collection Date: 9/4/2020 9:15:00 AM

Lab ID: 2009396-006

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	100	9.3		mg/Kg	1	9/11/2020 3:53:20 AM
Motor Oil Range Organics (MRO)	72	46		mg/Kg	1	9/11/2020 3:53:20 AM
Surr: DNOP	42.8	30.4-154		%Rec	1	9/11/2020 3:53:20 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	5.5	4.9		mg/Kg	1	9/12/2020 12:06:58 AM
Surr: BFB	120	75.3-105	S	%Rec	1	9/12/2020 12:06:58 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	9/12/2020 12:06:58 AM
Toluene	ND	0.049		mg/Kg	1	9/12/2020 12:06:58 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 12:06:58 AM
Xylenes, Total	0.099	0.099		mg/Kg	1	9/12/2020 12:06:58 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	9/12/2020 12:06:58 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	780	60		mg/Kg	20	9/14/2020 8:55:42 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.12.C

Project: Riverside

Collection Date: 9/4/2020 9:17:00 AM

Lab ID: 2009396-007

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	1100	19		mg/Kg	2	9/11/2020 10:17:47 PM
Motor Oil Range Organics (MRO)	310	97		mg/Kg	2	9/11/2020 10:17:47 PM
Surr: DNOP	80.8	30.4-154		%Rec	2	9/11/2020 10:17:47 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	7.4	4.9		mg/Kg	1	9/12/2020 12:30:28 AM
Surr: BFB	141	75.3-105	S	%Rec	1	9/12/2020 12:30:28 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	9/12/2020 12:30:28 AM
Toluene	ND	0.049		mg/Kg	1	9/12/2020 12:30:28 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 12:30:28 AM
Xylenes, Total	0.11	0.099		mg/Kg	1	9/12/2020 12:30:28 AM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	9/12/2020 12:30:28 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	1500	60		mg/Kg	20	9/14/2020 9:08:02 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.13.C

Project: Riverside

Collection Date: 9/4/2020 9:20:00 AM

Lab ID: 2009396-008

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	4200	99		mg/Kg	10	9/11/2020 10:41:53 PM
Motor Oil Range Organics (MRO)	1900	500		mg/Kg	10	9/11/2020 10:41:53 PM
Surr: DNOP	0	30.4-154	S	%Rec	10	9/11/2020 10:41:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	160	25		mg/Kg	5	9/12/2020 12:54:04 AM
Surr: BFB	298	75.3-105	S	%Rec	5	9/12/2020 12:54:04 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	9/12/2020 12:54:04 AM
Toluene	2.3	0.25		mg/Kg	5	9/12/2020 12:54:04 AM
Ethylbenzene	1.7	0.25		mg/Kg	5	9/12/2020 12:54:04 AM
Xylenes, Total	8.2	0.50		mg/Kg	5	9/12/2020 12:54:04 AM
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	5	9/12/2020 12:54:04 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	1800	60		mg/Kg	20	9/14/2020 9:20:22 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.14.C

Project: Riverside

Collection Date: 9/4/2020 9:25:00 AM

Lab ID: 2009396-009

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	150	9.6		mg/Kg	1	9/10/2020 10:59:59 PM
Motor Oil Range Organics (MRO)	87	48		mg/Kg	1	9/10/2020 10:59:59 PM
Surr: DNOP	93.6	30.4-154		%Rec	1	9/10/2020 10:59:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/12/2020 1:17:38 AM
Surr: BFB	90.8	75.3-105		%Rec	1	9/12/2020 1:17:38 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	9/12/2020 1:17:38 AM
Toluene	ND	0.050		mg/Kg	1	9/12/2020 1:17:38 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/12/2020 1:17:38 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 1:17:38 AM
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	9/12/2020 1:17:38 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	390	60		mg/Kg	20	9/14/2020 9:32:43 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.15.C

Project: Riverside

Collection Date: 9/4/2020 9:28:00 AM

Lab ID: 2009396-010

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/10/2020 11:23:53 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/10/2020 11:23:53 PM
Surr: DNOP	84.8	30.4-154		%Rec	1	9/10/2020 11:23:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 1:41:14 AM
Surr: BFB	92.8	75.3-105		%Rec	1	9/12/2020 1:41:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	9/12/2020 1:41:14 AM
Toluene	ND	0.049		mg/Kg	1	9/12/2020 1:41:14 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 1:41:14 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 1:41:14 AM
Surr: 4-Bromofluorobenzene	97.5	80-120		%Rec	1	9/12/2020 1:41:14 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	210	60		mg/Kg	20	9/14/2020 10:09:44 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.16.C

Project: Riverside

Collection Date: 9/4/2020 9:30:00 AM

Lab ID: 2009396-011

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	24	9.7		mg/Kg	1	9/10/2020 11:47:40 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/10/2020 11:47:40 PM
Surr: DNOP	66.2	30.4-154		%Rec	1	9/10/2020 11:47:40 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	9/14/2020 10:22:04 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	9/11/2020 2:39:18 PM
Toluene	0.16	0.050		mg/Kg	1	9/11/2020 2:39:18 PM
Ethylbenzene	0.077	0.050		mg/Kg	1	9/11/2020 2:39:18 PM
Xylenes, Total	0.37	0.099		mg/Kg	1	9/11/2020 2:39:18 PM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%Rec	1	9/11/2020 2:39:18 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	1	9/11/2020 2:39:18 PM
Surr: Dibromofluoromethane	112	70-130		%Rec	1	9/11/2020 2:39:18 PM
Surr: Toluene-d8	103	70-130		%Rec	1	9/11/2020 2:39:18 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	6.2	5.0		mg/Kg	1	9/11/2020 2:39:18 PM
Surr: BFB	101	70-130		%Rec	1	9/11/2020 2:39:18 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.17.C

Project: Riverside

Collection Date: 9/4/2020 9:32:00 AM

Lab ID: 2009396-012

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	11	9.9		mg/Kg	1	9/11/2020 12:11:28 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/11/2020 12:11:28 AM
Surr: DNOP	74.0	30.4-154		%Rec	1	9/11/2020 12:11:28 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	59		mg/Kg	20	9/14/2020 10:34:24 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	9/10/2020 5:54:25 PM
Toluene	ND	0.049		mg/Kg	1	9/10/2020 5:54:25 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/10/2020 5:54:25 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/10/2020 5:54:25 PM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%Rec	1	9/10/2020 5:54:25 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	9/10/2020 5:54:25 PM
Surr: Dibromofluoromethane	110	70-130		%Rec	1	9/10/2020 5:54:25 PM
Surr: Toluene-d8	102	70-130		%Rec	1	9/10/2020 5:54:25 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/10/2020 5:54:25 PM
Surr: BFB	99.7	70-130		%Rec	1	9/10/2020 5:54:25 PM

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

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

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Analytical Report

Lab Order 2009396

Date Reported: 9/16/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW.18.C

Project: Riverside

Collection Date: 9/4/2020 9:40:00 AM

Lab ID: 2009396-013

Matrix: SOIL

Received Date: 9/5/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	110	9.5		mg/Kg	1	9/10/2020 2:39:20 PM
Motor Oil Range Organics (MRO)	57	47		mg/Kg	1	9/10/2020 2:39:20 PM
Surr: DNOP	54.8	30.4-154		%Rec	1	9/10/2020 2:39:20 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	250	60		mg/Kg	20	9/14/2020 10:46:44 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	9/10/2020 7:20:06 PM
Toluene	ND	0.048		mg/Kg	1	9/10/2020 7:20:06 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/10/2020 7:20:06 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/10/2020 7:20:06 PM
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%Rec	1	9/10/2020 7:20:06 PM
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	1	9/10/2020 7:20:06 PM
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/10/2020 7:20:06 PM
Surr: Toluene-d8	106	70-130		%Rec	1	9/10/2020 7:20:06 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/10/2020 7:20:06 PM
Surr: BFB	98.9	70-130		%Rec	1	9/10/2020 7:20:06 PM

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

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

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009396

16-Sep-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: MB-55140	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 55140	RunNo: 71848								
Prep Date: 9/14/2020	Analysis Date: 9/14/2020	SeqNo: 2514826	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-55140	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 55140	RunNo: 71848								
Prep Date: 9/14/2020	Analysis Date: 9/14/2020	SeqNo: 2514827	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009396

16-Sep-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: LCS-55057	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55057	RunNo: 71721								
Prep Date: 9/9/2020	Analysis Date: 9/10/2020	SeqNo: 2509065	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	70	130			
Surr: DNOP	4.9		5.000		97.2	30.4	154			

Sample ID: MB-55057	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55057	RunNo: 71721								
Prep Date: 9/9/2020	Analysis Date: 9/10/2020	SeqNo: 2509066	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	12		10.00		116	30.4	154			

Sample ID: MB-55054	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55054	RunNo: 71762								
Prep Date: 9/9/2020	Analysis Date: 9/10/2020	SeqNo: 2510693	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	9.6		10.00		96.2	30.4	154			

Sample ID: LCS-55054	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55054	RunNo: 71762								
Prep Date: 9/9/2020	Analysis Date: 9/10/2020	SeqNo: 2510719	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.5	70	130			
Surr: DNOP	4.5		5.000		89.2	30.4	154			

Sample ID: LCS-55019	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 55019	RunNo: 71721								
Prep Date: 9/9/2020	Analysis Date: 9/10/2020	SeqNo: 2511324	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.4	70	130			
Surr: DNOP	4.3		5.000		85.1	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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009396

16-Sep-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: MB-55019	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 55019	RunNo: 71721								
Prep Date: 9/9/2020	Analysis Date: 9/10/2020	SeqNo: 2511325	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	9.3		10.00		92.5	30.4	154			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009396

16-Sep-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: lcs-54986	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 54986			RunNo: 71790						
Prep Date: 9/6/2020	Analysis Date: 9/11/2020			SeqNo: 2511831		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.4	72.5	106			
Surr: BFB	1200		1000		116	75.3	105			S

Sample ID: mb-54986	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 54986			RunNo: 71790						
Prep Date: 9/6/2020	Analysis Date: 9/11/2020			SeqNo: 2511833		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	1100		1000		108	75.3	105			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009396

16-Sep-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: LCS-54986	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 54986		RunNo: 71774							
Prep Date: 9/6/2020	Analysis Date: 9/11/2020		SeqNo: 2511426		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.0	80	120			
Toluene	0.91	0.050	1.000	0	91.0	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.3	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: mb-54986	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 54986		RunNo: 71774							
Prep Date: 9/6/2020	Analysis Date: 9/11/2020		SeqNo: 2511428		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009396

16-Sep-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: mb-55024	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 55024	RunNo: 71767								
Prep Date: 9/8/2020	Analysis Date: 9/10/2020	SeqNo: 2510949	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		93.7	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID: lcs-55024	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 55024	RunNo: 71767								
Prep Date: 9/8/2020	Analysis Date: 9/10/2020	SeqNo: 2510950	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.2	80	120			
Toluene	0.99	0.050	1.000	0	98.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: 2009396-011ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SW.16.C	Batch ID: 55024	RunNo: 71767								
Prep Date: 9/8/2020	Analysis Date: 9/10/2020	SeqNo: 2510952	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9940	0	95.6	71.1	115			
Toluene	1.2	0.050	0.9940	0.1600	106	79.6	132			
Ethylbenzene	1.2	0.050	0.9940	0.07741	109	83.8	134			
Xylenes, Total	3.8	0.099	2.982	0.3711	115	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.47		0.4970		95.3	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.4970		103	70	130			
Surr: Dibromofluoromethane	0.54		0.4970		108	70	130			
Surr: Toluene-d8	0.53		0.4970		107	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009396

16-Sep-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: 2009396-011amsd		SampType: MSD4		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: SW.16.C		Batch ID: 55024		RunNo: 71767						
Prep Date: 9/8/2020		Analysis Date: 9/10/2020		SeqNo: 2510953		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	0.9843	0	94.5	71.1	115	2.13	20	
Toluene	1.2	0.049	0.9843	0.1600	109	79.6	132	1.12	20	
Ethylbenzene	1.2	0.049	0.9843	0.07741	111	83.8	134	1.27	20	
Xylenes, Total	3.7	0.098	2.953	0.3711	112	82.4	132	3.06	20	
Surr: 1,2-Dichloroethane-d4	0.47		0.4921		94.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.48		0.4921		97.8	70	130	0	0	
Surr: Dibromofluoromethane	0.51		0.4921		104	70	130	0	0	
Surr: Toluene-d8	0.50		0.4921		102	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2009396

16-Sep-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: mb-55024	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 55024	RunNo: 71767								
Prep Date: 9/8/2020	Analysis Date: 9/10/2020	SeqNo: 2511217 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	70	130			

Sample ID: lcs-55024	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 55024	RunNo: 71767								
Prep Date: 9/8/2020	Analysis Date: 9/10/2020	SeqNo: 2511218 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	87.6	70	130			
Surr: BFB	510		500.0		102	70	130			

Sample ID: 2009396-012ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SW.17.C	Batch ID: 55024	RunNo: 71767								
Prep Date: 9/8/2020	Analysis Date: 9/10/2020	SeqNo: 2511222 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.65	0	92.6	49.2	122			
Surr: BFB	490		493.1		100	70	130			

Sample ID: 2009396-012amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SW.17.C	Batch ID: 55024	RunNo: 71767								
Prep Date: 9/8/2020	Analysis Date: 9/10/2020	SeqNo: 2511223 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.41	0	94.0	49.2	122	0.562	20	
Surr: BFB	510		488.3		104	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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: 2009396

RcptNo: 1

Received By: Juan Rojas 9/5/2020 7:45:00 AM

Completed By: Juan Rojas 9/5/2020 8:53:49 AM

Reviewed By: JR 9/5/20

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 $>0^{\circ}\text{C}$ 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: SPA 9.5.20

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good				
2	1.3	Good				

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

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



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

October 27, 2020

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

RE: Riverside

OrderNo.: 2010A24

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/22/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2010A24

Date Reported: 10/27/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B-19-C

Project: Riverside

Collection Date: 10/21/2020 12:00:00 PM

Lab ID: 2010A24-001

Matrix: SOIL

Received Date: 10/22/2020 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/23/2020 9:24:09 PM	56009
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	220	9.8		mg/Kg	1	10/23/2020 12:31:47 PM	55992
Motor Oil Range Organics (MRO)	150	49		mg/Kg	1	10/23/2020 12:31:47 PM	55992
Surr: DNOP	121	30.4-154		%Rec	1	10/23/2020 12:31:47 PM	55992
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	10/24/2020 4:32:18 AM	55990
Surr: BFB	105	75.3-105	S	%Rec	5	10/24/2020 4:32:18 AM	55990
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	10/24/2020 4:32:18 AM	55990
Toluene	ND	0.24		mg/Kg	5	10/24/2020 4:32:18 AM	55990
Ethylbenzene	ND	0.24		mg/Kg	5	10/24/2020 4:32:18 AM	55990
Xylenes, Total	0.48	0.48		mg/Kg	5	10/24/2020 4:32:18 AM	55990
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	5	10/24/2020 4:32:18 AM	55990

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

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

Page 1 of 6

Analytical Report

Lab Order 2010A24

Date Reported: 10/27/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B-20-C

Project: Riverside

Collection Date: 10/21/2020 12:05:00 PM

Lab ID: 2010A24-002

Matrix: SOIL

Received Date: 10/22/2020 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/23/2020 10:26:11 PM	56009
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	180	9.8		mg/Kg	1	10/23/2020 12:41:31 PM	55992
Motor Oil Range Organics (MRO)	93	49		mg/Kg	1	10/23/2020 12:41:31 PM	55992
Surr: DNOP	111	30.4-154		%Rec	1	10/23/2020 12:41:31 PM	55992
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	10/24/2020 6:05:53 AM	55990
Surr: BFB	106	75.3-105	S	%Rec	5	10/24/2020 6:05:53 AM	55990
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.12		mg/Kg	5	10/24/2020 6:05:53 AM	55990
Toluene	ND	0.24		mg/Kg	5	10/24/2020 6:05:53 AM	55990
Ethylbenzene	ND	0.24		mg/Kg	5	10/24/2020 6:05:53 AM	55990
Xylenes, Total	ND	0.48		mg/Kg	5	10/24/2020 6:05:53 AM	55990
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	5	10/24/2020 6:05:53 AM	55990

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

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

Page 2 of 6

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010A24

27-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: MB-56009	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56009	RunNo: 72886								
Prep Date: 10/23/2020	Analysis Date: 10/23/2020	SeqNo: 2563358	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56009	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56009	RunNo: 72886								
Prep Date: 10/23/2020	Analysis Date: 10/23/2020	SeqNo: 2563359	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 3 of 6

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010A24

27-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: LCS-55992	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 55992			RunNo: 72876						
Prep Date: 10/22/2020	Analysis Date: 10/23/2020			SeqNo: 2562831	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.8	70	130			
Surr: DNOP	4.7		5.000		93.4	30.4	154			

Sample ID: MB-55992	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 55992			RunNo: 72876						
Prep Date: 10/22/2020	Analysis Date: 10/23/2020			SeqNo: 2562833	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	9.3		10.00		92.5	30.4	154			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010A24

27-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: ics-55990	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 55990			RunNo: 72897						
Prep Date: 10/22/2020	Analysis Date: 10/24/2020			SeqNo: 2562395		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	85.0	72.5	106			
Surr: BFB	1100		1000		107	75.3	105			S

Sample ID: mb-55990	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 55990			RunNo: 72897						
Prep Date: 10/22/2020	Analysis Date: 10/24/2020			SeqNo: 2562397		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	960		1000		96.1	75.3	105			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010A24

27-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: 2010a24-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: B-19-C	Batch ID: 55990	RunNo: 72897								
Prep Date: 10/22/2020	Analysis Date: 10/24/2020	SeqNo: 2562427 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.12	0.9911	0	90.8	76.3	120			
Toluene	1.0	0.25	0.9911	0.1186	93.4	78.5	120			
Ethylbenzene	1.1	0.25	0.9911	0.1067	96.9	78.1	124			
Xylenes, Total	3.4	0.50	2.973	0.4838	98.7	79.3	125			
Surr: 4-Bromofluorobenzene	5.0		4.955		101	80	120			

Sample ID: 2010a24-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: B-19-C	Batch ID: 55990	RunNo: 72897								
Prep Date: 10/22/2020	Analysis Date: 10/24/2020	SeqNo: 2562428 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.12	0.9785	0	86.9	76.3	120	5.73	20	
Toluene	0.98	0.24	0.9785	0.1186	88.5	78.5	120	5.89	20	
Ethylbenzene	1.0	0.24	0.9785	0.1067	92.9	78.1	124	4.97	20	
Xylenes, Total	3.2	0.49	2.935	0.4838	93.2	79.3	125	5.98	20	
Surr: 4-Bromofluorobenzene	5.0		4.892		103	80	120	0	0	

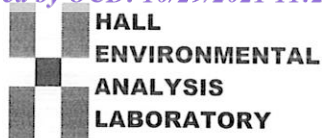
Sample ID: LCS-55990	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 55990	RunNo: 72897								
Prep Date: 10/22/2020	Analysis Date: 10/24/2020	SeqNo: 2562444 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.3	80	120			
Toluene	0.96	0.050	1.000	0	95.7	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID: mb-55990	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 55990	RunNo: 72897								
Prep Date: 10/22/2020	Analysis Date: 10/24/2020	SeqNo: 2562446 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: Lucid Energy Delaware

Work Order Number: 2010A24

RcptNo: 1

Received By: Isaiah Ortiz 10/22/2020 7:40:00 AM

Completed By: Emily Mocho 10/22/2020 8:08:02 AM

Reviewed By: SPA 10.22.20

I-0x

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 $>0^{\circ}\text{C}$ 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 10/22/20

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Not Present			

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Chain-of-Custody Record									
Client: <u>Lucid Energy</u>		Turn-Around Time: <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush <u>48hr</u>							
Mailing Address: <u>on file</u>		Project Name: <u>Riverside</u>							
Phone #: <u>3143307876</u>		Project #: _____							
email or Fax#: <u>magent@lucid-energy.com</u>		Project Manager: <u>MC</u>							
QA/QC Package: <input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Sampler: <u>MC</u>							
Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other _____		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
<input type="checkbox"/> EDD (Type) _____		# of Coolers: <u>1</u>							
		Cooler Temp (including CF): <u>1.8-0 RF 1.8' (°C)</u>							
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.			
<u>10/21/20</u>	<u>1200</u>	<u>S</u>	<u>B-19-C</u>	<u>4oz Soil</u>	<u>ICE</u>	<u>2010A24</u>			
<u>1</u>	<u>1205</u>	<u>S</u>	<u>B-20-C</u>	<u>1</u>	<u>1</u>	<u>001</u>			
Date: <u>10/21/20</u>	Time: <u>1226</u>	Relinquished by: <u>[Signature]</u>		Received by: <u>[Signature]</u>	Via: <u>[Signature]</u>	Date: <u>10/21/20</u>	Time: <u>1226</u>	F	
Date: <u>10/21/20</u>	Time: <u>1226</u>	Relinquished by: <u>[Signature]</u>		Received by: <u>[Signature]</u>	Via: <u>[Signature]</u>	Date: <u>10/21/20</u>	Time: <u>1226</u>	F	

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



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

October 30, 2020

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

RE: Riverside

OrderNo.: 2010B63

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 12 sample(s) on 10/24/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B-21-C

Project: Riverside

Collection Date: 10/23/2020 9:30:00 AM

Lab ID: 2010B63-001

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	61		mg/Kg	20	10/29/2020 5:21:16 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/26/2020 2:33:04 AM	56019
Surr: BFB	107	70-130		%Rec	1	10/26/2020 2:33:04 AM	56019
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/27/2020 11:46:28 AM	56030
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/27/2020 11:46:28 AM	56030
Surr: DNOP	100	30.4-154		%Rec	1	10/27/2020 11:46:28 AM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/26/2020 2:33:04 AM	56019
Toluene	ND	0.049		mg/Kg	1	10/26/2020 2:33:04 AM	56019
Ethylbenzene	ND	0.049		mg/Kg	1	10/26/2020 2:33:04 AM	56019
Xylenes, Total	ND	0.098		mg/Kg	1	10/26/2020 2:33:04 AM	56019
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%Rec	1	10/26/2020 2:33:04 AM	56019
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	10/26/2020 2:33:04 AM	56019
Surr: Dibromofluoromethane	106	70-130		%Rec	1	10/26/2020 2:33:04 AM	56019
Surr: Toluene-d8	106	70-130		%Rec	1	10/26/2020 2:33:04 AM	56019

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B-22-C

Project: Riverside

Collection Date: 10/23/2020 9:40:00 AM

Lab ID: 2010B63-002

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	10/29/2020 5:58:29 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/26/2020 3:01:36 AM	56019
Surr: BFB	105	70-130		%Rec	1	10/26/2020 3:01:36 AM	56019
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/27/2020 12:58:18 PM	56030
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2020 12:58:18 PM	56030
Surr: DNOP	98.0	30.4-154		%Rec	1	10/27/2020 12:58:18 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	10/26/2020 3:01:36 AM	56019
Toluene	ND	0.049		mg/Kg	1	10/26/2020 3:01:36 AM	56019
Ethylbenzene	ND	0.049		mg/Kg	1	10/26/2020 3:01:36 AM	56019
Xylenes, Total	ND	0.098		mg/Kg	1	10/26/2020 3:01:36 AM	56019
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%Rec	1	10/26/2020 3:01:36 AM	56019
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	10/26/2020 3:01:36 AM	56019
Surr: Dibromofluoromethane	103	70-130		%Rec	1	10/26/2020 3:01:36 AM	56019
Surr: Toluene-d8	100	70-130		%Rec	1	10/26/2020 3:01:36 AM	56019

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-23-C

Project: Riverside

Collection Date: 10/23/2020 9:50:00 AM

Lab ID: 2010B63-003

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	93	60		mg/Kg	20	10/29/2020 6:10:54 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/26/2020 3:30:07 AM	56019
Surr: BFB	104	70-130		%Rec	1	10/26/2020 3:30:07 AM	56019
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	48	8.7		mg/Kg	1	10/27/2020 1:22:08 PM	56030
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	10/27/2020 1:22:08 PM	56030
Surr: DNOP	105	30.4-154		%Rec	1	10/27/2020 1:22:08 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/26/2020 3:30:07 AM	56019
Toluene	ND	0.050		mg/Kg	1	10/26/2020 3:30:07 AM	56019
Ethylbenzene	ND	0.050		mg/Kg	1	10/26/2020 3:30:07 AM	56019
Xylenes, Total	ND	0.099		mg/Kg	1	10/26/2020 3:30:07 AM	56019
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	10/26/2020 3:30:07 AM	56019
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	10/26/2020 3:30:07 AM	56019
Surr: Dibromofluoromethane	103	70-130		%Rec	1	10/26/2020 3:30:07 AM	56019
Surr: Toluene-d8	99.0	70-130		%Rec	1	10/26/2020 3:30:07 AM	56019

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-24-C

Project: Riverside

Collection Date: 10/23/2020 10:00:00 AM

Lab ID: 2010B63-004

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	95	61		mg/Kg	20	10/29/2020 6:23:19 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/26/2020 3:58:36 AM	56019
Surr: BFB	98.1	70-130		%Rec	1	10/26/2020 3:58:36 AM	56019
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	24	10		mg/Kg	1	10/27/2020 1:46:05 PM	56030
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/27/2020 1:46:05 PM	56030
Surr: DNOP	90.6	30.4-154		%Rec	1	10/27/2020 1:46:05 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/26/2020 3:58:36 AM	56019
Toluene	ND	0.049		mg/Kg	1	10/26/2020 3:58:36 AM	56019
Ethylbenzene	ND	0.049		mg/Kg	1	10/26/2020 3:58:36 AM	56019
Xylenes, Total	ND	0.099		mg/Kg	1	10/26/2020 3:58:36 AM	56019
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%Rec	1	10/26/2020 3:58:36 AM	56019
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	10/26/2020 3:58:36 AM	56019
Surr: Dibromofluoromethane	102	70-130		%Rec	1	10/26/2020 3:58:36 AM	56019
Surr: Toluene-d8	99.8	70-130		%Rec	1	10/26/2020 3:58:36 AM	56019

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-25-C

Project: Riverside

Collection Date: 10/23/2020 11:30:00 AM

Lab ID: 2010B63-005

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	92	60		mg/Kg	20	10/29/2020 6:35:44 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/27/2020 4:47:21 PM	56022
Surr: BFB	99.6	70-130		%Rec	1	10/27/2020 4:47:21 PM	56022
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	61	9.6		mg/Kg	1	10/27/2020 2:10:00 PM	56030
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2020 2:10:00 PM	56030
Surr: DNOP	103	30.4-154		%Rec	1	10/27/2020 2:10:00 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/27/2020 4:47:21 PM	56022
Toluene	ND	0.049		mg/Kg	1	10/27/2020 4:47:21 PM	56022
Ethylbenzene	ND	0.049		mg/Kg	1	10/27/2020 4:47:21 PM	56022
Xylenes, Total	ND	0.099		mg/Kg	1	10/27/2020 4:47:21 PM	56022
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%Rec	1	10/27/2020 4:47:21 PM	56022
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	10/27/2020 4:47:21 PM	56022
Surr: Dibromofluoromethane	106	70-130		%Rec	1	10/27/2020 4:47:21 PM	56022
Surr: Toluene-d8	99.6	70-130		%Rec	1	10/27/2020 4:47:21 PM	56022

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-26-C

Project: Riverside

Collection Date: 10/23/2020 11:40:00 AM

Lab ID: 2010B63-006

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	85	60		mg/Kg	20	10/29/2020 6:48:08 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/27/2020 6:12:54 PM	56022
Surr: BFB	110	70-130		%Rec	1	10/27/2020 6:12:54 PM	56022
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	20	9.3		mg/Kg	1	10/27/2020 2:34:03 PM	56030
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2020 2:34:03 PM	56030
Surr: DNOP	99.1	30.4-154		%Rec	1	10/27/2020 2:34:03 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/27/2020 6:12:54 PM	56022
Toluene	ND	0.049		mg/Kg	1	10/27/2020 6:12:54 PM	56022
Ethylbenzene	ND	0.049		mg/Kg	1	10/27/2020 6:12:54 PM	56022
Xylenes, Total	ND	0.098		mg/Kg	1	10/27/2020 6:12:54 PM	56022
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%Rec	1	10/27/2020 6:12:54 PM	56022
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	10/27/2020 6:12:54 PM	56022
Surr: Dibromofluoromethane	102	70-130		%Rec	1	10/27/2020 6:12:54 PM	56022
Surr: Toluene-d8	103	70-130		%Rec	1	10/27/2020 6:12:54 PM	56022

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-27-C

Project: Riverside

Collection Date: 10/23/2020 11:45:00 AM

Lab ID: 2010B63-007

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	150	61		mg/Kg	20	10/29/2020 7:37:46 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/27/2020 7:38:26 PM	56022
Surr: BFB	104	70-130		%Rec	1	10/27/2020 7:38:26 PM	56022
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/27/2020 3:21:56 PM	56030
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2020 3:21:56 PM	56030
Surr: DNOP	96.7	30.4-154		%Rec	1	10/27/2020 3:21:56 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	10/27/2020 7:38:26 PM	56022
Toluene	ND	0.049		mg/Kg	1	10/27/2020 7:38:26 PM	56022
Ethylbenzene	ND	0.049		mg/Kg	1	10/27/2020 7:38:26 PM	56022
Xylenes, Total	ND	0.097		mg/Kg	1	10/27/2020 7:38:26 PM	56022
Surr: 1,2-Dichloroethane-d4	90.2	70-130		%Rec	1	10/27/2020 7:38:26 PM	56022
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	10/27/2020 7:38:26 PM	56022
Surr: Dibromofluoromethane	104	70-130		%Rec	1	10/27/2020 7:38:26 PM	56022
Surr: Toluene-d8	101	70-130		%Rec	1	10/27/2020 7:38:26 PM	56022

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-28-C

Project: Riverside

Collection Date: 10/23/2020 11:50:00 AM

Lab ID: 2010B63-008

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	250	59		mg/Kg	20	10/29/2020 7:50:11 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/27/2020 8:07:09 PM	56022
Surr: BFB	109	70-130		%Rec	1	10/27/2020 8:07:09 PM	56022
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/27/2020 3:45:49 PM	56030
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2020 3:45:49 PM	56030
Surr: DNOP	96.6	30.4-154		%Rec	1	10/27/2020 3:45:49 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/27/2020 8:07:09 PM	56022
Toluene	ND	0.050		mg/Kg	1	10/27/2020 8:07:09 PM	56022
Ethylbenzene	ND	0.050		mg/Kg	1	10/27/2020 8:07:09 PM	56022
Xylenes, Total	ND	0.10		mg/Kg	1	10/27/2020 8:07:09 PM	56022
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%Rec	1	10/27/2020 8:07:09 PM	56022
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	10/27/2020 8:07:09 PM	56022
Surr: Dibromofluoromethane	103	70-130		%Rec	1	10/27/2020 8:07:09 PM	56022
Surr: Toluene-d8	105	70-130		%Rec	1	10/27/2020 8:07:09 PM	56022

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-29-C

Project: Riverside

Collection Date: 10/23/2020 11:55:00 AM

Lab ID: 2010B63-009

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	310	59		mg/Kg	20	10/29/2020 7:25:21 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/27/2020 8:35:43 PM	56022
Surr: BFB	102	70-130		%Rec	1	10/27/2020 8:35:43 PM	56022
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/27/2020 4:09:46 PM	56030
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2020 4:09:46 PM	56030
Surr: DNOP	88.9	30.4-154		%Rec	1	10/27/2020 4:09:46 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/27/2020 8:35:43 PM	56022
Toluene	ND	0.049		mg/Kg	1	10/27/2020 8:35:43 PM	56022
Ethylbenzene	ND	0.049		mg/Kg	1	10/27/2020 8:35:43 PM	56022
Xylenes, Total	ND	0.098		mg/Kg	1	10/27/2020 8:35:43 PM	56022
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%Rec	1	10/27/2020 8:35:43 PM	56022
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	10/27/2020 8:35:43 PM	56022
Surr: Dibromofluoromethane	100	70-130		%Rec	1	10/27/2020 8:35:43 PM	56022
Surr: Toluene-d8	102	70-130		%Rec	1	10/27/2020 8:35:43 PM	56022

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-30-C

Project: Riverside

Collection Date: 10/23/2020 12:00:00 PM

Lab ID: 2010B63-010

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	450	60		mg/Kg	20	10/29/2020 8:02:35 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/27/2020 9:04:13 PM	56022
Surr: BFB	101	70-130		%Rec	1	10/27/2020 9:04:13 PM	56022
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/27/2020 4:33:39 PM	56030
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2020 4:33:39 PM	56030
Surr: DNOP	109	30.4-154		%Rec	1	10/27/2020 4:33:39 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/27/2020 9:04:13 PM	56022
Toluene	ND	0.050		mg/Kg	1	10/27/2020 9:04:13 PM	56022
Ethylbenzene	ND	0.050		mg/Kg	1	10/27/2020 9:04:13 PM	56022
Xylenes, Total	ND	0.10		mg/Kg	1	10/27/2020 9:04:13 PM	56022
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%Rec	1	10/27/2020 9:04:13 PM	56022
Surr: 4-Bromofluorobenzene	98.1	70-130		%Rec	1	10/27/2020 9:04:13 PM	56022
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/27/2020 9:04:13 PM	56022
Surr: Toluene-d8	105	70-130		%Rec	1	10/27/2020 9:04:13 PM	56022

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 Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-31-C

Project: Riverside

Collection Date: 10/23/2020 12:10:00 PM

Lab ID: 2010B63-011

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	260	59		mg/Kg	20	10/29/2020 8:15:00 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/27/2020 9:32:50 PM	56022
Surr: BFB	104	70-130		%Rec	1	10/27/2020 9:32:50 PM	56022
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/27/2020 4:57:33 PM	56030
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/27/2020 4:57:33 PM	56030
Surr: DNOP	85.9	30.4-154		%Rec	1	10/27/2020 4:57:33 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/27/2020 9:32:50 PM	56022
Toluene	ND	0.050		mg/Kg	1	10/27/2020 9:32:50 PM	56022
Ethylbenzene	ND	0.050		mg/Kg	1	10/27/2020 9:32:50 PM	56022
Xylenes, Total	ND	0.10		mg/Kg	1	10/27/2020 9:32:50 PM	56022
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%Rec	1	10/27/2020 9:32:50 PM	56022
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	10/27/2020 9:32:50 PM	56022
Surr: Dibromofluoromethane	109	70-130		%Rec	1	10/27/2020 9:32:50 PM	56022
Surr: Toluene-d8	104	70-130		%Rec	1	10/27/2020 9:32:50 PM	56022

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

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

Analytical Report

Lab Order 2010B63

Date Reported: 10/30/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: SW-32-C

Project: Riverside

Collection Date: 10/23/2020 12:20:00 PM

Lab ID: 2010B63-012

Matrix: SOIL

Received Date: 10/24/2020 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	320	60		mg/Kg	20	10/29/2020 8:27:24 PM	56115
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/27/2020 10:01:29 PM	56022
Surr: BFB	102	70-130		%Rec	1	10/27/2020 10:01:29 PM	56022
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/27/2020 5:21:26 PM	56030
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/27/2020 5:21:26 PM	56030
Surr: DNOP	94.5	30.4-154		%Rec	1	10/27/2020 5:21:26 PM	56030
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	10/27/2020 10:01:29 PM	56022
Toluene	ND	0.050		mg/Kg	1	10/27/2020 10:01:29 PM	56022
Ethylbenzene	ND	0.050		mg/Kg	1	10/27/2020 10:01:29 PM	56022
Xylenes, Total	ND	0.099		mg/Kg	1	10/27/2020 10:01:29 PM	56022
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	1	10/27/2020 10:01:29 PM	56022
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	10/27/2020 10:01:29 PM	56022
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/27/2020 10:01:29 PM	56022
Surr: Toluene-d8	103	70-130		%Rec	1	10/27/2020 10:01:29 PM	56022

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

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010B63

30-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

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

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010B63

30-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: 2010B63-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: B-21-C	Batch ID: 56030	RunNo: 72933								
Prep Date: 10/26/2020	Analysis Date: 10/27/2020	SeqNo: 2565363	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.9	49.36	0	99.8	15	184			
Surr: DNOP	4.6		4.936		92.6	30.4	154			

Sample ID: 2010B63-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: B-21-C	Batch ID: 56030	RunNo: 72933								
Prep Date: 10/26/2020	Analysis Date: 10/27/2020	SeqNo: 2565364	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.7	48.50	0	97.3	15	184	4.23	23.9	
Surr: DNOP	4.4		4.850		90.4	30.4	154	0	0	

Sample ID: LCS-56030	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56030	RunNo: 72933								
Prep Date: 10/26/2020	Analysis Date: 10/27/2020	SeqNo: 2565384	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.6	70	130			
Surr: DNOP	4.3		5.000		85.3	30.4	154			

Sample ID: MB-56030	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 56030	RunNo: 72933								
Prep Date: 10/26/2020	Analysis Date: 10/27/2020	SeqNo: 2565385	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	9.1		10.00		90.5	30.4	154			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010B63

30-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: ics-56019	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56019	RunNo: 72914								
Prep Date: 10/24/2020	Analysis Date: 10/25/2020	SeqNo: 2563106	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.2	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.4	0.10	3.000	0	113	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.5	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		107	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID: mb-56019	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 56019	RunNo: 72914								
Prep Date: 10/24/2020	Analysis Date: 10/25/2020	SeqNo: 2563107	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	0.49		0.5000		98.1	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.49		0.5000		98.6	70	130			

Sample ID: 2010b59-001ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56019	RunNo: 72914								
Prep Date: 10/24/2020	Analysis Date: 10/25/2020	SeqNo: 2563109	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9980	0	107	71.1	115			
Toluene	1.2	0.050	0.9980	0	123	79.6	132			
Ethylbenzene	1.3	0.050	0.9980	0	125	83.8	134			
Xylenes, Total	3.9	0.10	2.994	0	130	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.48		0.4990		96.3	70	130			
Surr: 4-Bromofluorobenzene	0.55		0.4990		111	70	130			
Surr: Dibromofluoromethane	0.50		0.4990		100	70	130			
Surr: Toluene-d8	0.51		0.4990		102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010B63

30-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: 2010b59-001amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56019	RunNo: 72914								
Prep Date: 10/24/2020	Analysis Date: 10/25/2020	SeqNo: 2563110	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9891	0	105	71.1	115	2.55	20	
Toluene	1.2	0.049	0.9891	0	126	79.6	132	1.64	20	
Ethylbenzene	1.2	0.049	0.9891	0	124	83.8	134	1.78	20	
Xylenes, Total	4.0	0.099	2.967	0	135	82.4	132	3.18	20	S
Surr: 1,2-Dichloroethane-d4	0.46		0.4946		92.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.52		0.4946		105	70	130	0	0	
Surr: Dibromofluoromethane	0.49		0.4946		98.3	70	130	0	0	
Surr: Toluene-d8	0.50		0.4946		100	70	130	0	0	

Sample ID: Ics-56022	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56022	RunNo: 72964								
Prep Date: 10/25/2020	Analysis Date: 10/27/2020	SeqNo: 2565392	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.3	80	120			
Toluene	1.1	0.050	1.000	0	111	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.4	0.10	3.000	0	114	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.0	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.6	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		105	70	130			
Surr: Toluene-d8	0.52		0.5000		105	70	130			

Sample ID: mb-56022	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 56022	RunNo: 72964								
Prep Date: 10/25/2020	Analysis Date: 10/27/2020	SeqNo: 2565393	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	0.45		0.5000		90.5	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		109	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.53		0.5000		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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010B63

30-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: 2010b63-005ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SW-25-C	Batch ID: 56022	RunNo: 72964								
Prep Date: 10/25/2020	Analysis Date: 10/27/2020	SeqNo: 2565395	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9737	0	92.0	71.1	115			
Toluene	1.0	0.049	0.9737	0	107	79.6	132			
Ethylbenzene	1.1	0.049	0.9737	0	108	83.8	134			
Xylenes, Total	3.4	0.097	2.921	0	117	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.45		0.4869		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.4869		98.3	70	130			
Surr: Dibromofluoromethane	0.52		0.4869		106	70	130			
Surr: Toluene-d8	0.51		0.4869		105	70	130			

Sample ID: 2010b63-005amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: SW-25-C	Batch ID: 56022	RunNo: 72964								
Prep Date: 10/25/2020	Analysis Date: 10/27/2020	SeqNo: 2565396	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.024	0.9785	0	90.1	71.1	115	1.62	20	
Toluene	1.0	0.049	0.9785	0	105	79.6	132	1.71	20	
Ethylbenzene	1.0	0.049	0.9785	0	105	83.8	134	2.41	20	
Xylenes, Total	3.2	0.098	2.935	0	110	82.4	132	5.19	20	
Surr: 1,2-Dichloroethane-d4	0.47		0.4892		96.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.51		0.4892		104	70	130	0	0	
Surr: Dibromofluoromethane	0.53		0.4892		108	70	130	0	0	
Surr: Toluene-d8	0.53		0.4892		107	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010B63

30-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: ics-56019	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 56019			RunNo: 72914						
Prep Date: 10/24/2020	Analysis Date: 10/25/2020			SeqNo: 2563081		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	87.5	70	130			
Surr: BFB	500		500.0		101	70	130			

Sample ID: mb-56019	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 56019			RunNo: 72914						
Prep Date: 10/24/2020	Analysis Date: 10/25/2020			SeqNo: 2563082		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		101	70	130			

Sample ID: 2010b59-002ams	SampType: MS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: BatchQC	Batch ID: 56019			RunNo: 72914						
Prep Date: 10/24/2020	Analysis Date: 10/25/2020			SeqNo: 2563086		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	24.95	0	104	49.2	122			
Surr: BFB	500		499.0		101	70	130			

Sample ID: 2010b59-002amsd	SampType: MSD			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: BatchQC	Batch ID: 56019			RunNo: 72914						
Prep Date: 10/24/2020	Analysis Date: 10/25/2020			SeqNo: 2563087		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	49.2	122	1.61	20	
Surr: BFB	520		500.0		103	70	130	0	0	

Sample ID: ics-56022	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 56022			RunNo: 72964						
Prep Date: 10/25/2020	Analysis Date: 10/27/2020			SeqNo: 2565422		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	85.4	70	130			
Surr: BFB	510		500.0		101	70	130			

Sample ID: mb-56022	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 56022			RunNo: 72964						
Prep Date: 10/25/2020	Analysis Date: 10/27/2020			SeqNo: 2565423		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010B63

30-Oct-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: mb-56022	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 56022	RunNo: 72964								
Prep Date: 10/25/2020	Analysis Date: 10/27/2020	SeqNo: 2565423 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	540		500.0		108	70	130			

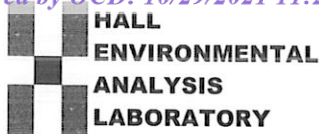
Sample ID: 2010b63-006ams	SampType: MS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SW-26-C	Batch ID: 56022	RunNo: 72964								
Prep Date: 10/25/2020	Analysis Date: 10/27/2020	SeqNo: 2565426 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.58	2.289	78.4	49.2	122			
Surr: BFB	500		491.6		103	70	130			

Sample ID: 2010b63-006amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: SW-26-C	Batch ID: 56022	RunNo: 72964								
Prep Date: 10/25/2020	Analysis Date: 10/27/2020	SeqNo: 2565427 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.95	2.289	82.3	49.2	122	5.68	20	
Surr: BFB	520		499.0		104	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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: **2010B63**RcptNo: **1**Received By: **Desiree Dominguez** 10/24/2020 8:45:00 AMCompleted By: **Desiree Dominguez** 10/23/2020 4:02:19 PMReviewed By: *EW* 10/26/2020*ID-3**ID-3*

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 $>0^{\circ}\text{C}$ 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: *DAD 10/24/20*

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.2	Good	Not Present			

Chain-of-Custody Record

Client: Lucid EnergyMailing Address: on filePhone #: 314 330 7876email 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:

Riverside

Project #:

Project Manager:

Michael CantSampler: MCOn Ice: ☒ Yes ☐ No# of Coolers: 1Cooler Temp (including CF): 3.1 ± 0.1 - 3.2 (°C)Container Type and # 4oz Sealed IcePreservative Type ICEHEAL No. 2010863Date Time 10/23/20 0950Matrix SSample Name B-21.CDate Time 10/23/20 0940Matrix SSample Name B-22.CDate Time 10/23/20 0950Matrix SSample Name SW-23.CDate Time 10/23/20 1000Matrix SSample Name SW-24.CDate Time 10/23/20 1130Matrix SSample Name SW-25.CDate Time 10/23/20 1140Matrix SSample Name SW-26.CDate Time 10/23/20 1145Matrix SSample Name SW-27.CDate Time 10/23/20 1150Matrix SSample Name SW-28.CDate Time 10/23/20 1155Matrix SSample Name SW-29.CDate Time 10/23/20 1200Matrix SSample Name SW-30.CDate Time 10/23/20 1210Matrix SSample Name SW-31.CDate Time 10/23/20 1220Matrix SSample Name SW-32.CDate Time 10/23/20 1200Matrix SSample Name SW-33.CDate Time 10/23/20 1200Matrix SSample Name SW-34.CDate Time 10/23/20 1200Matrix SSample Name SW-35.CDate Time 10/23/20 1200Matrix SSample Name SW-36.CDate Time 10/23/20 1200Matrix SSample Name SW-37.CDate Time 10/23/20 1200Matrix SSample Name SW-38.CDate Time 10/23/20 1200Matrix SSample Name SW-39.CDate Time 10/23/20 1200Matrix SSample Name SW-40.CDate Time 10/23/20 1200Matrix SSample Name SW-41.CDate Time 10/23/20 1200Matrix SSample Name SW-42.CDate Time 10/23/20 1200Matrix SSample Name SW-43.CDate Time 10/23/20 1200Matrix SSample Name SW-44.CDate Time 10/23/20 1200Matrix SSample Name SW-45.CDate Time 10/23/20 1200Matrix SSample Name SW-46.CDate Time 10/23/20 1200Matrix SSample Name SW-47.CDate Time 10/23/20 1200Matrix SSample Name SW-48.CDate Time 10/23/20 1200Matrix SSample Name SW-49.CDate Time 10/23/20 1200Matrix SSample Name SW-50.CDate Time 10/23/20 1200Matrix SSample Name SW-51.CDate Time 10/23/20 1200Matrix SSample Name SW-52.CDate Time 10/23/20 1200Matrix SSample Name SW-53.CDate Time 10/23/20 1200Matrix SSample Name SW-54.CDate Time 10/23/20 1200Matrix SSample Name SW-55.CDate Time 10/23/20 1200Matrix SSample Name SW-56.CDate Time 10/23/20 1200Matrix SSample Name SW-57.CDate Time 10/23/20 1200Matrix SSample Name SW-58.CDate Time 10/23/20 1200Matrix SSample Name SW-59.CDate Time 10/23/20 1200Matrix SSample Name SW-60.CDate Time 10/23/20 1200Matrix SSample Name SW-61.CDate Time 10/23/20 1200Matrix SSample Name SW-62.CDate Time 10/23/20 1200Matrix SSample Name SW-63.CDate Time 10/23/20 1200Matrix SSample Name SW-64.CDate Time 10/23/20 1200Matrix SSample Name SW-65.CDate Time 10/23/20 1200Matrix SSample Name SW-66.CDate Time 10/23/20 1200Matrix SSample Name SW-67.CDate Time 10/23/20 1200Matrix SSample Name SW-68.CDate Time 10/23/20 1200Matrix SSample Name SW-69.CDate Time 10/23/20 1200Matrix SSample Name SW-70.CDate Time 10/23/20 1200Matrix SSample Name SW-71.CDate Time 10/23/20 1200Matrix SSample Name SW-72.CDate Time 10/23/20 1200Matrix SSample Name SW-73.CDate Time 10/23/20 1200Matrix SSample Name SW-74.CDate Time 10/23/20 1200Matrix SSample Name SW-75.CDate Time 10/23/20 1200Matrix SSample Name SW-76.CDate Time 10/23/20 1200Matrix SSample Name SW-77.CDate Time 10/23/20 1200Matrix SSample Name SW-78.CDate Time 10/23/20 1200Matrix SSample Name SW-79.CDate Time 10/23/20 1200Matrix SSample Name SW-80.CDate Time 10/23/20 1200Matrix SSample Name SW-81.CDate Time 10/23/20 1200Matrix SSample Name SW-82.CDate Time 10/23/20 1200Matrix SSample Name SW-83.CDate Time 10/23/20 1200Matrix SSample Name SW-84.CDate Time 10/23/20 1200Matrix SSample Name SW-85.CDate Time 10/23/20 1200Matrix SSample Name SW-86.CDate Time 10/23/20 1200Matrix SSample Name SW-87.CDate Time 10/23/20 1200Matrix SSample Name SW-88.CDate Time 10/23/20 1200Matrix SSample Name SW-89.CDate Time 10/23/20 1200Matrix SSample Name SW-90.CDate Time 10/23/20 1200Matrix SSample Name SW-91.CDate Time 10/23/20 1200Matrix SSample Name SW-92.CDate Time 10/23/20 1200Matrix SSample Name SW-93.CDate Time 10/23/20 1200Matrix SSample Name SW-94.CDate Time 10/23/20 1200Matrix SSample Name SW-95.CDate Time 10/23/20 1200Matrix SSample Name SW-96.CDate Time 10/23/20 1200Matrix SSample Name SW-97.CDate Time 10/23/20 1200Matrix SSample Name SW-98.CDate Time 10/23/20 1200Matrix SSample Name SW-99.CDate Time 10/23/20 1200Matrix SSample Name SW-100.CDate Time 10/23/20 1200Matrix SSample Name SW-101.CDate Time 10/23/20 1200Matrix SSample Name SW-102.CDate Time 10/23/20 1200Matrix SSample Name SW-103.CDate Time 10/23/20 1200Matrix SSample Name SW-104.CDate Time 10/23/20 1200Matrix S



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

December 10, 2020

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

RE: Riverside

OrderNo.: 2012281

Dear Michael Gant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/5/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2012281

Date Reported: 12/10/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B-33-C

Project: Riverside

Collection Date: 11/25/2020 10:10:00 AM

Lab ID: 2012281-001

Matrix: SOIL

Received Date: 12/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/8/2020 4:44:30 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/8/2020 4:44:30 PM
Surr: DNOP	43.2	30.4-154		%Rec	1	12/8/2020 4:44:30 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	61		mg/Kg	20	12/7/2020 2:36:25 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	12/7/2020 3:27:33 AM
Toluene	ND	0.049		mg/Kg	1	12/7/2020 3:27:33 AM
Ethylbenzene	ND	0.049		mg/Kg	1	12/7/2020 3:27:33 AM
Xylenes, Total	ND	0.098		mg/Kg	1	12/7/2020 3:27:33 AM
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	12/7/2020 3:27:33 AM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	12/7/2020 3:27:33 AM
Surr: Dibromofluoromethane	107	70-130		%Rec	1	12/7/2020 3:27:33 AM
Surr: Toluene-d8	97.9	70-130		%Rec	1	12/7/2020 3:27:33 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/7/2020 3:27:33 AM
Surr: BFB	104	70-130		%Rec	1	12/7/2020 3:27:33 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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2012281

Date Reported: 12/10/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B-34-C

Project: Riverside

Collection Date: 11/25/2020 10:15:00 AM

Lab ID: 2012281-002

Matrix: SOIL

Received Date: 12/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/8/2020 5:08:10 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/8/2020 5:08:10 PM
Surr: DNOP	31.4	30.4-154		%Rec	1	12/8/2020 5:08:10 PM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	12/7/2020 3:13:39 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	12/7/2020 3:56:15 AM
Toluene	ND	0.048		mg/Kg	1	12/7/2020 3:56:15 AM
Ethylbenzene	ND	0.048		mg/Kg	1	12/7/2020 3:56:15 AM
Xylenes, Total	ND	0.097		mg/Kg	1	12/7/2020 3:56:15 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	12/7/2020 3:56:15 AM
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	12/7/2020 3:56:15 AM
Surr: Dibromofluoromethane	104	70-130		%Rec	1	12/7/2020 3:56:15 AM
Surr: Toluene-d8	100	70-130		%Rec	1	12/7/2020 3:56:15 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/7/2020 3:56:15 AM
Surr: BFB	103	70-130		%Rec	1	12/7/2020 3:56:15 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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 9

Analytical Report

Lab Order 2012281

Date Reported: 12/10/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B-35-C

Project: Riverside

Collection Date: 11/25/2020 10:18:00 AM

Lab ID: 2012281-003

Matrix: SOIL

Received Date: 12/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/9/2020 11:06:01 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/9/2020 11:06:01 AM
Surr: DNOP	92.3	30.4-154		%Rec	1	12/9/2020 11:06:01 AM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	12/7/2020 4:15:41 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	12/7/2020 4:24:58 AM
Toluene	ND	0.050		mg/Kg	1	12/7/2020 4:24:58 AM
Ethylbenzene	ND	0.050		mg/Kg	1	12/7/2020 4:24:58 AM
Xylenes, Total	ND	0.10		mg/Kg	1	12/7/2020 4:24:58 AM
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	12/7/2020 4:24:58 AM
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	12/7/2020 4:24:58 AM
Surr: Dibromofluoromethane	106	70-130		%Rec	1	12/7/2020 4:24:58 AM
Surr: Toluene-d8	98.2	70-130		%Rec	1	12/7/2020 4:24:58 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/7/2020 4:24:58 AM
Surr: BFB	102	70-130		%Rec	1	12/7/2020 4:24:58 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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2012281

Date Reported: 12/10/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lucid Energy Delaware

Client Sample ID: B-36-C

Project: Riverside

Collection Date: 11/25/2020 10:20:00 AM

Lab ID: 2012281-004

Matrix: SOIL

Received Date: 12/5/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: BRM
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	12/9/2020 11:29:33 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	12/9/2020 11:29:33 AM
Surr: DNOP	96.1	30.4-154		%Rec	1	12/9/2020 11:29:33 AM
EPA METHOD 300.0: ANIONS						Analyst: VP
Chloride	ND	60		mg/Kg	20	12/7/2020 4:28:06 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	12/7/2020 4:53:34 AM
Toluene	ND	0.049		mg/Kg	1	12/7/2020 4:53:34 AM
Ethylbenzene	ND	0.049		mg/Kg	1	12/7/2020 4:53:34 AM
Xylenes, Total	ND	0.098		mg/Kg	1	12/7/2020 4:53:34 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	12/7/2020 4:53:34 AM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	12/7/2020 4:53:34 AM
Surr: Dibromofluoromethane	108	70-130		%Rec	1	12/7/2020 4:53:34 AM
Surr: Toluene-d8	98.4	70-130		%Rec	1	12/7/2020 4:53:34 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/7/2020 4:53:34 AM
Surr: BFB	102	70-130		%Rec	1	12/7/2020 4:53:34 AM

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

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

Page 4 of 9

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2012281

10-Dec-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: MB-56826	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56826	RunNo: 73830								
Prep Date: 12/7/2020	Analysis Date: 12/7/2020	SeqNo: 2604047	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56826	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56826	RunNo: 73830								
Prep Date: 12/7/2020	Analysis Date: 12/7/2020	SeqNo: 2604048	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2012281

10-Dec-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: LCS-56809	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56809	RunNo: 73877								
Prep Date: 12/5/2020	Analysis Date: 12/8/2020	SeqNo: 2605170			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.9		5.000		118	30.4	154			

Sample ID: LCS-56813	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56813	RunNo: 73877								
Prep Date: 12/5/2020	Analysis Date: 12/8/2020	SeqNo: 2605171			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	120	70	130			
Surr: DNOP	6.3		5.000		127	30.4	154			

Sample ID: MB-56809	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 56809	RunNo: 73877								
Prep Date: 12/5/2020	Analysis Date: 12/8/2020	SeqNo: 2605176			Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		116	30.4	154			

Sample ID: MB-56813	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 56813	RunNo: 73877								
Prep Date: 12/5/2020	Analysis Date: 12/8/2020	SeqNo: 2605177			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	12		10.00		120	30.4	154			

Sample ID: MB-56878	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 56878	RunNo: 73880								
Prep Date: 12/9/2020	Analysis Date: 12/9/2020	SeqNo: 2605390			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	9.1		10.00		91.3	30.4	154			

Sample ID: LCS-56878	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56878	RunNo: 73880								
Prep Date: 12/9/2020	Analysis Date: 12/9/2020	SeqNo: 2605391			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2012281

10-Dec-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: LCS-56878	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 56878		RunNo: 73880							
Prep Date: 12/9/2020	Analysis Date: 12/9/2020		SeqNo: 2605391		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.1	70	130			
Surr: DNOP	4.3		5.000		86.9	30.4	154			

Sample ID: 2012281-003AMS	SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: B-35-C	Batch ID: 56878		RunNo: 73880							
Prep Date: 12/9/2020	Analysis Date: 12/9/2020		SeqNo: 2606439		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.6	48.12	0	90.8	15	184			
Surr: DNOP	2.4		4.812		48.9	30.4	154			

Sample ID: 2012281-003AMSD	SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: B-35-C	Batch ID: 56878		RunNo: 73880							
Prep Date: 12/9/2020	Analysis Date: 12/9/2020		SeqNo: 2606440		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.3	46.43	0	91.1	15	184	3.33	23.9	
Surr: DNOP	3.7		4.643		79.7	30.4	154	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2012281

10-Dec-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: Ics-56812	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56812	RunNo: 73824								
Prep Date: 12/5/2020	Analysis Date: 12/6/2020	SeqNo: 2602748	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.1	0.050	1.000	0	107	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.4	0.10	3.000	0	113	80	120			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: mb-56812	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 56812	RunNo: 73824								
Prep Date: 12/5/2020	Analysis Date: 12/6/2020	SeqNo: 2602749	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	0.53		0.5000		107	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.1	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.50		0.5000		99.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2012281

10-Dec-20

Client: Lucid Energy Delaware**Project:** Riverside

Sample ID: lcs-56812	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 56812			RunNo: 73824						
Prep Date: 12/5/2020	Analysis Date: 12/6/2020			SeqNo: 2602785	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.1	70	130			
Surr: BFB	520		500.0		103	70	130			

Sample ID: mb-56812	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 56812			RunNo: 73824						
Prep Date: 12/5/2020	Analysis Date: 12/6/2020			SeqNo: 2602786	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	500		500.0		100	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
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ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: Lucid Energy Delaware

Work Order Number: 2012281

RcptNo: 1

Received By: Cheyenne Cason 12/5/2020 8:00:00 AM

Completed By: Emily Mocho 12/5/2020 8:42:22 AM

Reviewed By: SGL 12/5/20

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 $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐
Samples not frozen
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: me 12/5/20Special 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.1	Good	Yes			
2	-0.7	Good	Yes			
3	1.4	Good	Yes			



Appendix E

Volume Calculations

Please submit this form by the 5th business day of the month following the month the vent/blowdown occurred. Please submit a separate form for each site. All sections should be filled out by field personnel. **All red fields per event must be entered to calculate volumes correctly! All yellow fields should be entered if known for increased accuracy.**

Month Blowdown Occurred	June	Year	2020
Site	AP-Southern Union	Employee Name	Rad Frost/Martin Chavarr

Known (Station) Volumes

All red fields per event must be entered to calculate volumes correctly! All yellow fields should be entered if known for increased accuracy.

Type of Blowdown	Number of Occurrences	Known Volume (MCF) Blowdown	Volume (MCF)
		Multiplied by	
		Multiplied by	
		Multiplied by	

Calculated (Pipeline) Volumes

Blowdown(s)				Purge/Vent			
Reference Meter Number		Blowdown (MCF)		Reference Meter Number		Volume Lost (MCF)	35.55
Pipe ID (in)		Length (Feet)		Beginning Date & Time	06/18/2020 00:00	Vent Duration (Hours)	24.00
Begin Press. (PSIG)		End Press. (PSIG)		Ending Date & Time	06/19/2020 00:00	Gas Temp	
Gas Temp.		Specific Gravity		Pipe ID (in)	8in Sch. 80	Specific Gravity	
Elevation (ft)				Orifice Size (in)	0.15	Elevation (ft)	
				Avg Pressure	60.00		
Reference Meter Number		Blowdown (MCF)		Reference Meter Number		Volume Lost (MCF)	
Pipe ID (in)		Length (Feet)		Beginning Date & Time		Vent Duration (Hours)	
Begin Press. (PSIG)		End Press. (PSIG)		Ending Date & Time		Gas Temp	
Gas Temp.		Specific Gravity		Pipe ID (in)		Specific Gravity	
Elevation (ft)				Orifice Size (in)		Elevation (ft)	
				Avg Pressure			
Reference Meter Number		Blowdown (MCF)		Reference Meter Number		Volume Lost (MCF)	
Pipe ID (in)		Length (Feet)		Beginning Date & Time		Vent Duration (Hours)	
Begin Press. (PSIG)		End Press. (PSIG)		Ending Date & Time		Gas Temp	
Gas Temp.		Specific Gravity		Pipe ID (in)		Specific Gravity	
Elevation (ft)				Orifice Size (in)		Elevation (ft)	
				Avg Pressure			

Total Volume (MCF): 35.55

Comments:

Riverside ASS Leak

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

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

CONDITIONS

Action 58616

CONDITIONS

Operator: Lucid Artesia Company 201 S. Fourth Street Artesia, NM 88210	OGRID: 147831
	Action Number: 58616
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	12/3/2021