May 3, 2024

NMOCD District 2
1811 S. First St.,
Artesia, New Mexico 88210

SUBJECT: Remediation Closure Report for the Keel B Injection Line Release (nAPP2333337407), Eddy County, New Mexico

To Whom It May Concern,

On behalf of LH Operating, LLC, Strata Resources (Strata) has prepared this Remediation Closure Report that describes the remediation of a release of produced water and crude oil related to an injection line failure at the Keel B Injection Line. The site is in Unit C, Section 09, Township 17S, Range 31E, Eddy County, New Mexico, on federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5-minute quadrangle map.

Table 1 summarizes release information and closure criteria.

Table 1: Release Information and Closure Criteria			
Name	Keel B Injection Line	Company	LH Operating, LLC
API Number	N/A	Location	32.854872 -103.876316
Incident Number	nAPP2333337407		
Estimated Date of Release	11/27/2023	Date Reported to NMOCD	11/27/2023
Land-Owner	Federal	Reported To	NMOCD, BLM
Source of Release	Injection Line Failure		
Released Volume	2.4 bbls **2,476 bbls**	Released Material	Crude Oil **Produced Water**
Recovered Volume	2.4 bbls **1,320 bbls**	Net Release	0 bbl of Crude Oil **1,156 bbl of Produced Water**
NMOCD Closure Criteria	<50 feet to groundwater		
Strata Response Dates	01/23/2024 – 01/30/2024		

STRATA RESOURCES SCIENCE & ENGINEERING

1.0 Background

On November 27, 2023, a release was discovered at the Keel B Injection Line after the line had a failure. Initial response actions were conducted by the operator and included source elimination by means of repair, site stabilization, and release recovery. The release consisted of 2.4 barrels of crude oil and 2,476 barrels of produced water. Subsequently, 2.4 barrels of crude oil and 1,320 barrels of produced water were successfully recovered. Figures 1 and 2 illustrate the vicinity and site location, while Figure 3 illustrates the release location.

2.0 Site Information and Closure Criteria

The Keel B Injection site is located approximately 6.2 miles northeast of Loco Hills, New Mexico on federally owned land at an elevation of approximately 3901 feet above mean sea level (amsl).

Based upon the New Mexico Office of the State Engineers (NMOSE) online water well database (Appendix A), depth to groundwater in the area is between 50-100 feet below grade surface (bgs). There is no known water sources within ½-mile of the location, according to the NMOSE database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 2/7/2024).

The nearest significant watercourse is a waterline, located approximately 1,231 feet north of the location. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix A.

3.0 Release Characterization and Remediation Activities

On November 27, 2023, LH Operating, LLC personnel discovered that the Keel B injection line had a failure. Personnel immediately shut in all valves to eliminate the source. An estimated 2.4 barrels of crude oil and 2,476 barrels of produced water were released.

On January 23, 2024, Strata mobilized to the site to oversee the excavation of contaminated soil in and around the injection line. Strata guided the excavation activities by collecting soil samples for field screening. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. NMOCD was notified on January 24, 2024, that closure samples were expected to be collected in two (2) business days. A copy of this notification is included in Appendix B.

On January 29, 2024, Strata began conducting confirmation sampling of the walls and base of the excavation. The areas around sample locations SP1-SP6 were excavated to a depth of 2 feet bgs. The areas around sample locations SP7-SP16 were excavated to a depth of 4 feet bgs.

The confirmation samples were comprised of representative wall and base 5-point composite samples, each representing 200 ft^2 of exposed excavation of the base (SP1-SP16) and sidewalls (SP1-SP81). All samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Eurofins (previously Hall Environmental) in Albuquerque, New Mexico (Appendix C)

On February 15, 2024, and February 19, 2024, Strata received lab confirmation that all samples were below NMOCD closure criteria (Table 3).

Figure 3 shows the extent of the excavation and sample locations. All laboratory results are summarized in Table 3 and the analytical reports are included in Appendix C. Approximately 356 cubic yards of contaminated soil were removed and hauled to a NMOCD approved facility.

4.0 Reclamation Report and Revegetation Plan

Following confirmation sampling, the excavated areas were backfilled with locally sourced "like-kind" material. The impacted area was re-contoured and compacted to achieve erosion control, stability, and preservation of surface water erosion to the extent practicable. Photographs of the area following backfill and reclamation are included in Appendix E.

The affected area was reseeded on February 1, 2024, with landowner-approved seed mixture of approximately 1-acre rate of BLM LPC seed blend by grain drilled method. Figure 3 illustrates the area that was reclaimed and reseeded.

Regular surveys will be conducted monthly to monitor the health and growth of the vegetation. Once the vegetative growth meets the life-form ratio of plus or minus 50% of pre-disturbance levels and a total percent plant cover of at least 70% of pre-disturbance levels, excluding noxious weeds (NMAC 19.15.29.13 D. (3)), a site-specific Revegetation Report will be completed. The Revegetation Report will include:

- An executive summary of the revegetation activities
- A scaled site map of the revegetated areas
- Revegetation inspections detailing the life-form ratio / no noxious weeds
- Photographs

5.0 Scope and Limitations

The scope of our services included: assessment sampling, verifying release stabilizations; regulatory liaison; remediation; and preparation of this closure and reclamation report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact Lynn Acosta at (505) 516-7469.

Submitted by:

Strata Resources, LLC

Lynn A. Acosta,
Project Geoscientist

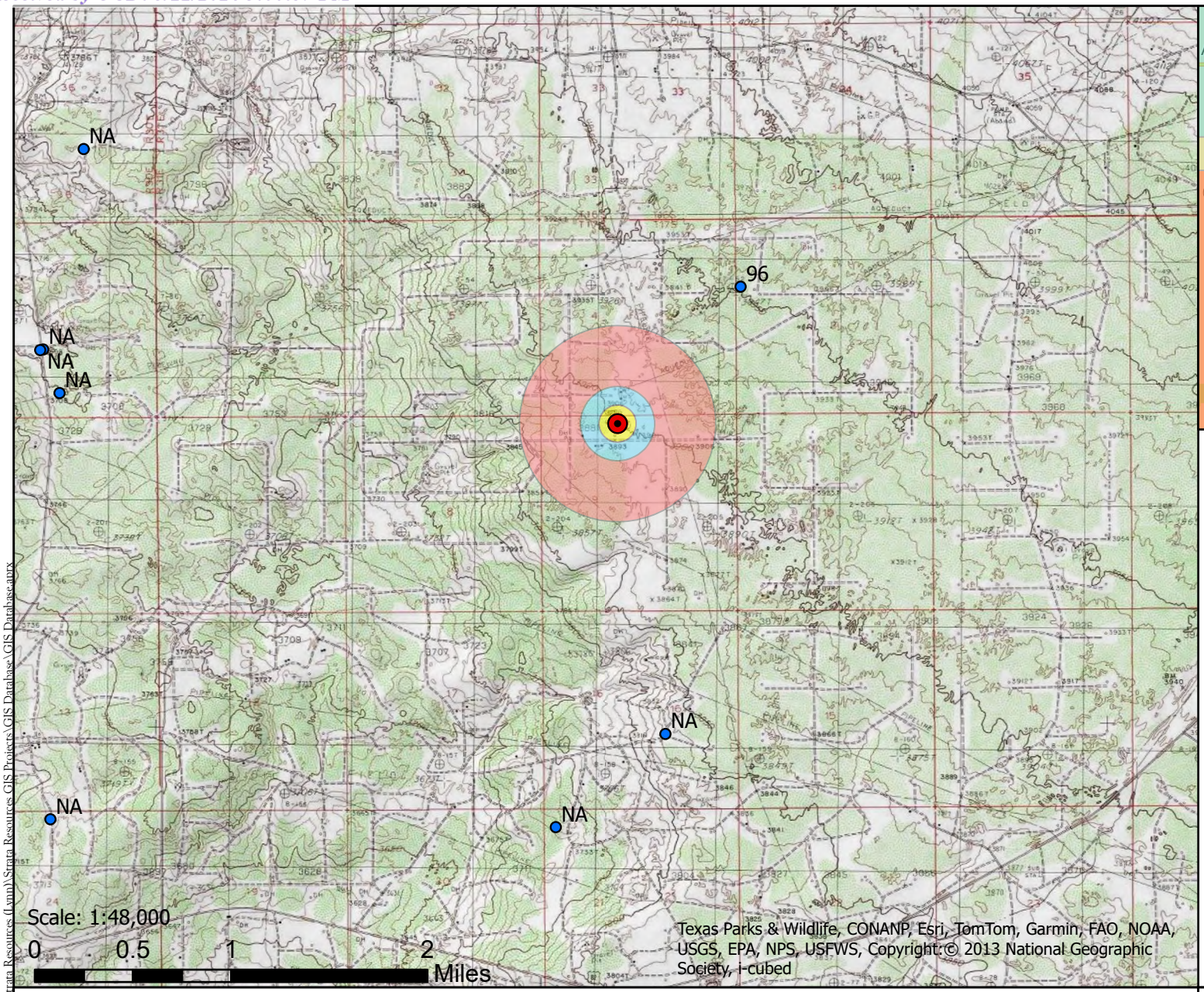
ATTACHMENTS

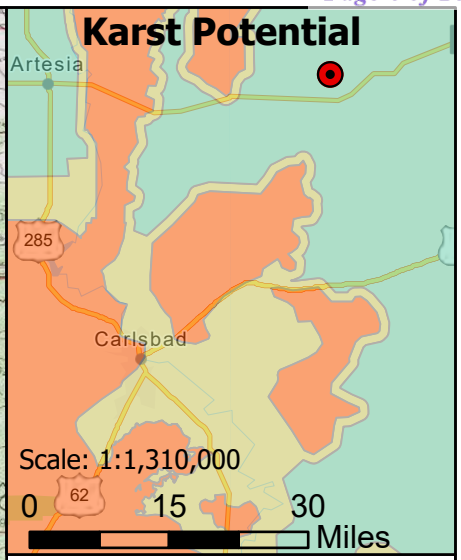
Figures:
Figure 1: Topographic Site Map
Figure 2: Aerial Site Map
Figure 3: Site Characterization Map

Tables:
Table 2: NMOCD Closure Criteria
Table 3: Summary of Sample Results

Appendices:
Appendix A: NMOSE Wells Report
Appendix B: Notification of Sampling
Appendix C: Analytical Laboratory Results
Appendix D: Open Excavation Photo Log
Appendix E: Reclamation Photo Log

FIGURES





Legend

- Point of Release
- OSE GW Wells (depth in ft)
- USGS GW Wells (depth in ft)

Buffer Distance

- 500
- 1000
- 2640

Karst Potential

- High
- Medium
- Low

N

Point of Release Coordinates:
-103.876316W 32.854872N

Topographic Site Map
Keel B Injection Line - LH Operating, LLC
UL: B S: 9 T: 17S R: 31E, Eddy County, New Mexico

Figure 1

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Date Saved: 3/7/2024

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Sarahmay Schlea
Date 3/7/2024
Checked
Approved

STRATA RESOURCES

PO Box 2474
Carlsbad, NM 88221
(505) 516 7469

Legend

- Point of Release
- Flowlines/Streams/Canals
- 200 Foot Radius
- 300 Foot Radius

0 200 400 800

Feet

Scale: 1:5,400

N

Point of Release Coordinates:
-103.876316W 32.854872N

Aerial Site Map
Keel B Injection Line - LH Operating, LLC
UL: B S: 9 T: 17S R: 31E, Eddy County, New Mexico

Figure 2

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Date Saved: 3/7/2024

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Drawn Sarahmay Schlea
Date 3/7/2024
Checked
Approved

STRATA RESOURCES

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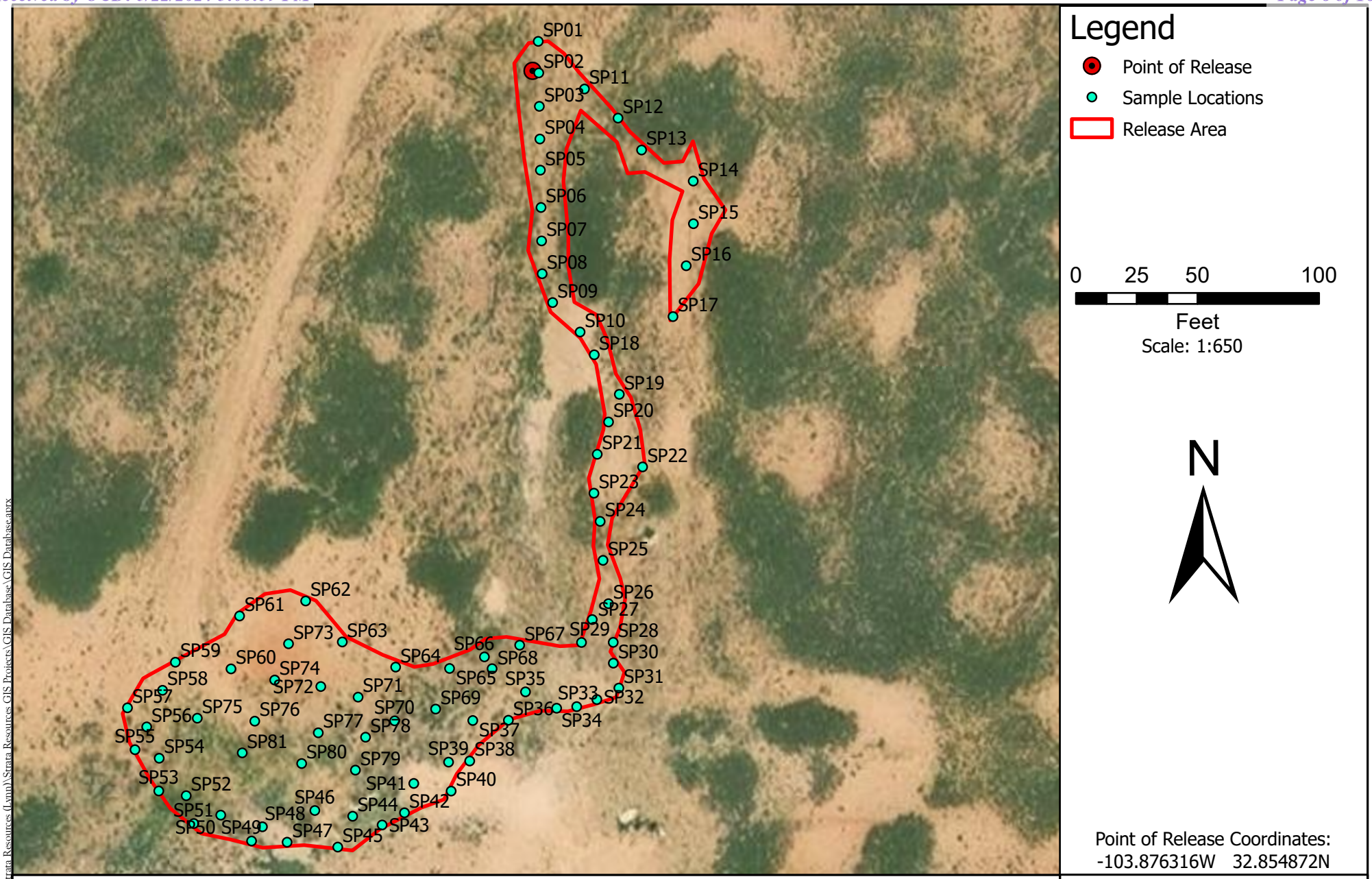
Carlsbad, NM 88221
(505) 516 7469



Point of Release Coordinates:
-103.876316W 32.854872N

Site and Sample Location Map
Keel B Injection Line - LH Operating, LLC
UL: B S: 9 T: 17S R: 31E, Eddy County, New Mexico

Figure 3

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Date Saved: 3/7/2024

Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Sarahmay Schlea
Date 3/11/2024
Checked
Approved

STRATA RESOURCES

PO Box 2474
Carlsbad, NM 88221
(505) 516 7469

TABLES

Table 2: NMOCD Closure Criteria

LH Operating, LLC
Keel B Injection Line
Incident No. nAPP2333337407

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
General Depth to Groundwater In Region (feet bgs)	>100	New Mexico Office of the State Engineer
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	>5280	United States Geological Survery Topographical Map
Hortizontal Distance to Nearest Significant Watercourse (ft)	1,231	Waterline

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		**Closure Criteria (units in mg/kg)**				
		Chloride *numerical limit or background, whichever is greater	**TPH**	**GRO + DRO**	**BTEX**	**Benzene**
< 50' BGS	X	600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water	**yes or no**	**if yes, then**				
<300' from continuously flowing watercourse or other significant watercourse?	No	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	No					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No					
<1000' from fresh water well or spring?	No					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	No					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	No					
<100' from wetland?	No					
within area overlying a subsurface mine	No					
within an unstable area?	No					
within a 100-year floodplain?	No					

Table 3: Summary of Sample Results

Sample ID	Sample Date	BTEX	Benzene	GRO	DRO	MRO	Total TPH	Cl-
		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria		50	10				100	600
Base Samples								
SP1	1/30/2024	<0.216	<0.024	<4.8	<9.6	<48	<62.4	<60
SP2		<0.207	<0.023	<4.6	<9.7	<48	<62.3	<59
SP3		<0.212	<0.024	<4.7	<9.1	<46	<59.8	<59
SP4		<0.211	<0.023	<4.7	<9.2	<46	<59.9	<60
SP5		<0.208	<0.023	<4.6	<9.1	<45	<58.7	<60
SP6		<0.211	<0.023	<4.7	<9.1	<46	<59.8	<60
SP7		<0.211	<0.023	<4.7	<9.0	<45	<58.7	<60
SP8		<0.208	<0.023	<4.6	<9.1	<45	<58.7	<60
SP9		<0.213	<0.024	<4.7	<9.9	<49	<63.6	<60
SP10		<0.221	<0.025	<4.9	<8.7	<44	<57.6	<60
SP11		<0.21	<0.023	<4.7	<8.9	<44	<57.6	<60
SP12		<0.21	<0.023	<4.7	<9.9	<49	<63.6	<60
SP13		<0.213	<0.024	<4.7	<8.8	<44	<57.5	<60
SP14		<0.208	<0.023	<4.6	<9.0	<45	58.6	<60
SP15		<0.225	<0.025	<5.0	<9.3	<46	60.3	<60
SP16		<0.224	<0.025	<5.0	<9.2	<46	60.2	<60
Sidewalls								
SP1		<0.216	<0.024	<4.8	<9.6	<48	62.4	<60
SP2		<0.212	<0.024	<4.7	<9.4	<47	<61.1	<60
SP3		<0.213	<0.024	<4.7	<9.7	<48	62.4	<61
SP4		<0.224	<0.025	<5.0	<9.7	<49	<63.7	<60
SP5		<0.217	<0.024	<4.8	<9.0	<45	<58.8	<60
SP6		<0.222	<0.025	<4.9	<9.2	<46	<60.1	<60
SP7		<0.225	<0.025	<5.0	<8.8	<44	<57.8	<60
SP8		<0.217	<0.024	<4.8	<9.6	<48	<62.4	<60
SP9		<0.211	<0.023	<4.7	<10	<50	<64.7	<60
SP10		<0.215	<0.024	<4.8	<8.9	<45	<58.7	<60
SP11		<0.221	<0.025	<4.9	<9.2	<46	<60.1	<60
SP12		<0.207	<0.023	<4.6	<9.0	<45	<58.6	<61
SP13		<0.216	<0.024	<4.8	<9.2	<46	<60	<60
SP14		<0.207	<0.023	<4.6	<9.1	<46	<59.7	<60
SP15		<0.225	<0.025	<5.0	<9.1	<45	<59.1	<60
SP16		<0.21	<0.023	<4.7	<8.9	<44	<57.6	<60
SP17		<0.225	<0.025	<5.0	<9.5	<47	<61.5	<60
SP18		<0.212	<0.024	<4.7	<9.0	<45	<58.7	<60
SP19		<0.217	<0.024	<4.8	<8.5	<43	<56.3	<60
SP20		<0.221	<0.025	<4.9	<9.9	<49	<63.8	<60
SP21		<0.222	<0.025	<4.9	<9.2	<46	<60.1	<59
SP22		<0.224	<0.025	<5.0	<9.6	<48	<62.6	<60
SP23		<0.224	<0.025	<5.0	<9.2	<46	<60.2	<60

SP24		<0.219	<0.024	<4.9	<8.9	<45	<58.8	<60
SP25		<0.216	<0.024	<4.8	<9.9	<49	<63.7	<60
SP26		<0.217	<0.024	<4.8	<9.8	<49	<63.6	<60
SP27		<0.219	<0.024	<4.9	<9.7	<49	<63.6	<60
SP28		<0.216	<0.024	<4.8	<8.7	<43	<56.5	<60
SP29		<0.215	<0.024	<4.8	<9.9	<50	<64.7	<60
SP30		<0.219	<0.024	<4.9	<8.4	<42	<55.3	<60
SP31		<0.215	<0.024	<4.8	<9.3	<47	<61.1	<60
SP32		<0.213	<0.024	<4.7	<8.8	<44	<57.5	<60
SP33		<0.22	<0.024	<4.9	<9.5	<48	<62.4	<59
SP34		<0.222	<0.025	<4.9	<8.6	<43	<56.5	<60
SP35		<0.215	<0.024	<4.8	<9.2	<46	<60	<60
SP36		<0.216	<0.024	<4.8	<9.4	<47	<61.2	<60
SP37		<0.217	<0.024	<4.8	<9.6	<48	<62.4	<60
SP38		<0.216	<0.024	<4.8	<9.5	<47	<61.3	<60
SP39		<0.216	<0.024	<4.8	<8.8	<44	<57.6	<60
SP40		<0.22	<0.024	<4.9	<9.6	<48	<62.5	<60
SP41	1/29/2024	<0.225	<0.025	<5.0	<9.2	<46	<60.2	<59
SP42		<0.225	<0.025	<5.0	<9.8	<49	<63.8	<59
SP43		<0.225	<0.025	<5.0	<9.1	<45	<59.1	<60
SP44		<0.224	<0.025	<5.0	<9.2	<46	<60.2	<60
SP45		<0.222	<0.025	<4.9	<9.3	<46	<60.2	<61
SP46		<0.217	<0.024	<4.8	<9.9	<49	<63.7	<60
SP47		<0.22	<0.024	<4.9	<9.3	<47	<61.2	<60
SP48		<0.216	<0.024	<4.8	<10	<50	<64.8	<60
SP49		<0.222	<0.025	<4.9	<9.6	<48	<62.5	<59
SP50		<0.219	<0.024	<4.9	<10	<50	<64.9	<60
SP51		<0.225	<0.025	<5.0	<9.7	<49	<63.7	<60
SP52		<0.225	<0.025	<5.0	<9.4	<47	<61.4	<59
SP53		<0.219	<0.024	<4.9	<9.7	<49	<63.6	<60
SP54		<0.219	<0.024	<4.9	<9.6	<48	<62.5	<60
SP55		<0.221	<0.025	<4.9	<9.3	<46	<60.2	<60
SP56		<0.224	<0.025	<5.0	<9.6	<48	<62.6	<60
SP57		<0.225	<0.025	<5.0	<9.7	<48	<62.7	<60
SP58		<0.217	<0.024	<4.8	<9.4	<47	<61.2	<60
SP59		<0.224	<0.025	<5.0	<9.4	<47	<61.4	<60
SP60		<0.215	<0.024	<4.8	<9.9	<50	<64.7	<60
SP61		<0.224	<0.025	<5.0	<9.0	<45	<59	<60
SP62		<0.225	<0.025	<5.0	<9.2	<46	<60.2	<60
SP63		<0.225	<0.025	<5.0	<9.8	<49	<63.8	<60
SP64		<0.222	<0.025	<4.9	<9.8	<49	<63.7	<59
SP65		<0.221	<0.025	<4.9	<9.8	<49	<63.7	<60
SP66		<0.224	<0.025	<5.0	<9.7	<48	<62.9	<60
SP67		<0.222	<0.025	<4.9	<9.7	<48	<62.6	<60
SP68		<0.219	<0.024	<4.9	<9.6	<48	<62.5	<60
SP69		<0.225	<0.025	<5.0	<8.4	<42	<55.4	<60
SP70		<0.222	<0.025	<4.9	<9.7	<48	<62.6	<60

Table 3: Summary of Sample Results

LH Operating, LLC
Keel B (nAPP2333337407)

SP71		<0.217	<0.024	<4.8	<9.5	<47	<61.3	<60
SP72		<0.224	<0.025	<5.0	<8.7	<43	<56.7	<59
SP73		<0.225	<0.025	<5.0	<9.5	<47	<61.5	<60
SP74		<0.221	<0.025	<4.9	<8.6	<43	<56.5	<60
SP75		<0.217	<0.024	<4.8	<9.7	<49	<63.5	<60
SP76		<0.217	<0.024	<4.8	<9.8	<49	<63.6	<60
SP77		<0.221	<0.025	<4.9	<9.3	<47	<61.2	<60
SP78		<0.22	<0.024	<4.9	<10	<59	<73.9	<60
SP79		<0.225	<0.025	<5.0	<9.7	<49	<63.7	<60
SP80		<0.219	<0.024	<4.9	<9.3	<46	<60.2	<60
SP81		<0.211	<0.023	<4.7	<9.4	<47	<61.1	<60

APPENDIX A:
NMOSE WELLS REPORT

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 605144.19 **Northing (Y):** 3635757.63 **Radius:** 805

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

4/23/24 10:52 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 14207 POD3		L	LE	2	3	3	31	16S	37E	606117	3636977	1560	240	96	144

Average Depth to Water: **96 feet**

Minimum Depth: **96 feet**

Maximum Depth: **96 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 605144.19 **Northing (Y):** 3635757.63 **Radius:** 1600

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

4/23/24 10:53 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX B:
NOTIFICATION OF SAMPLING

From: Michael Burton
Sent: Wednesday, January 24, 2024 9:11 PM
To: strataresources@outlook.com; arrowlogisticsnm@gmail.com
Subject: Fwd: The Oil Conservation Division (OCD) has accepted the application, Application ID: 307547

---------- Forwarded message ---------
From: <OCDOnline@state.nm.us>
Date: Wed, Jan 24, 2024 at 8:56 PM
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 307547
To: <mike@lhoperating.com>

To whom it may concern (c/o Michael Burton for LH Operating, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2333337407.

The sampling event is expected to take place:

When: 01/29/2024 @ 07:00
Where: B-09-17S-31E 0 FNL 0 FEL (32.854872,-103.876316)

Additional Information: Mike Burton 575-499-5306
32.854925,-103.876854
Open access

Additional Instructions: 32.854925,-103.876854
Open access

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

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

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

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

APPENDIX C:
ANALYTICAL LABORATORY RESULTS

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 19, 2024

Mike Burton
LH Operating, LLC
4809 Cole Ave, Ste 106
Dallas, TX 75205
TEL: (575) 499-5306
FAX:

RE: Keel B INJ OrderNo.: 2402163

Dear Mike Burton:

Eurofins Environment Testing South Central, LLC received 81 sample(s) on 2/3/2024 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 do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel B INJ
Lab ID: 2402163-001 **Matrix:** SOIL

Client Sample ID: SP1
Collection Date: 1/29/2024 7:00:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/6/2024 3:56:41 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/6/2024 3:56:41 PM
Surr: DNOP	87.4	61.2-134		%Rec	1	2/6/2024 3:56:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/7/2024 1:06:00 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 1:06:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 1:06:00 PM
Toluene	ND	0.048		mg/Kg	1	2/7/2024 1:06:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/7/2024 1:06:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/7/2024 1:06:00 PM
Surr: 4-Bromofluorobenzene	97.0	39.1-146		%Rec	1	2/7/2024 1:06:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 10:48:35 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP2
Project: Keel B INJ
Collection Date: 1/29/2024 7:10:00 AM
Lab ID: 2402163-002
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/6/2024 4:08:44 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/6/2024 4:08:44 PM
Surr: DNOP	77.1	61.2-134		%Rec	1	2/6/2024 4:08:44 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 2:12:00 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 2:12:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 2:12:00 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 2:12:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 2:12:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/7/2024 2:12:00 PM
Surr: 4-Bromofluorobenzene	94.5	39.1-146		%Rec	1	2/7/2024 2:12:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 11:27:06 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP3
Project: Keel B INJ
Collection Date: 1/29/2024 7:20:00 AM
Lab ID: 2402163-003
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/6/2024 4:20:46 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/6/2024 4:20:46 PM
Surr: DNOP	83.2	61.2-134		%Rec	1	2/6/2024 4:20:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 3:18:00 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 3:18:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 3:18:00 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 3:18:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 3:18:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	2/7/2024 3:18:00 PM
Surr: 4-Bromofluorobenzene	97.1	39.1-146		%Rec	1	2/7/2024 3:18:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	61		mg/Kg	20	2/7/2024 6:59:42 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP4
Project: Keel B INJ
Collection Date: 1/29/2024 7:30:00 AM
Lab ID: 2402163-004
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/6/2024 5:17:09 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2024 5:17:09 PM
Surr: DNOP	83.0	61.2-134		%Rec	1	2/6/2024 5:17:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/7/2024 3:40:00 PM
Surr: BFB	102	15-244		%Rec	1	2/7/2024 3:40:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	2/7/2024 3:40:00 PM
Toluene	ND	0.050		mg/Kg	1	2/7/2024 3:40:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/7/2024 3:40:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/7/2024 3:40:00 PM
Surr: 4-Bromofluorobenzene	96.6	39.1-146		%Rec	1	2/7/2024 3:40:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 7:14:51 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP5
Project: Keel B INJ
Collection Date: 1/29/2024 7:40:00 AM
Lab ID: 2402163-005
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/6/2024 5:29:06 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/6/2024 5:29:06 PM
Surr: DNOP	83.0	61.2-134		%Rec	1	2/6/2024 5:29:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/7/2024 4:02:00 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 4:02:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 4:02:00 PM
Toluene	ND	0.048		mg/Kg	1	2/7/2024 4:02:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/7/2024 4:02:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/7/2024 4:02:00 PM
Surr: 4-Bromofluorobenzene	97.6	39.1-146		%Rec	1	2/7/2024 4:02:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 8:00:20 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP6
Project: Keel B INJ
Collection Date: 1/29/2024 7:50:00 AM
Lab ID: 2402163-006
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/6/2024 5:41:05 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2024 5:41:05 PM
Surr: DNOP	84.7	61.2-134		%Rec	1	2/6/2024 5:41:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/7/2024 4:24:00 PM
Surr: BFB	101	15-244		%Rec	1	2/7/2024 4:24:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	2/7/2024 4:24:00 PM
Toluene	ND	0.049		mg/Kg	1	2/7/2024 4:24:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/7/2024 4:24:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/7/2024 4:24:00 PM
Surr: 4-Bromofluorobenzene	96.1	39.1-146		%Rec	1	2/7/2024 4:24:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 8:15:29 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP7
Project: Keel B INJ
Collection Date: 1/29/2024 8:00:00 AM
Lab ID: 2402163-007
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	2/6/2024 5:52:58 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/6/2024 5:52:58 PM
Surr: DNOP	86.2	61.2-134		%Rec	1	2/6/2024 5:52:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/7/2024 4:46:00 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 4:46:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	2/7/2024 4:46:00 PM
Toluene	ND	0.050		mg/Kg	1	2/7/2024 4:46:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/7/2024 4:46:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/7/2024 4:46:00 PM
Surr: 4-Bromofluorobenzene	96.0	39.1-146		%Rec	1	2/7/2024 4:46:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 8:30:40 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP8
Project: Keel B INJ
Collection Date: 1/29/2024 8:10:00 AM
Lab ID: 2402163-008
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/6/2024 6:04:54 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/6/2024 6:04:54 PM
Surr: DNOP	84.8	61.2-134		%Rec	1	2/6/2024 6:04:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/7/2024 5:08:00 PM
Surr: BFB	103	15-244		%Rec	1	2/7/2024 5:08:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 5:08:00 PM
Toluene	ND	0.048		mg/Kg	1	2/7/2024 5:08:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/7/2024 5:08:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/7/2024 5:08:00 PM
Surr: 4-Bromofluorobenzene	97.4	39.1-146		%Rec	1	2/7/2024 5:08:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 8:45:50 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP9
Project: Keel B INJ
Collection Date: 1/29/2024 8:20:00 AM
Lab ID: 2402163-009
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/6/2024 6:16:48 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/6/2024 6:16:48 PM
Surr: DNOP	82.4	61.2-134		%Rec	1	2/6/2024 6:16:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 5:30:00 PM
Surr: BFB	105	15-244		%Rec	1	2/7/2024 5:30:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 5:30:00 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 5:30:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 5:30:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/7/2024 5:30:00 PM
Surr: 4-Bromofluorobenzene	96.5	39.1-146		%Rec	1	2/7/2024 5:30:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 9:01:00 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP10
Project: Keel B INJ
Collection Date: 1/29/2024 8:30:00 AM
Lab ID: 2402163-010
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/6/2024 6:40:31 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/6/2024 6:40:31 PM
Surr: DNOP	81.2	61.2-134		%Rec	1	2/6/2024 6:40:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/7/2024 5:52:00 PM
Surr: BFB	105	15-244		%Rec	1	2/7/2024 5:52:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 5:52:00 PM
Toluene	ND	0.048		mg/Kg	1	2/7/2024 5:52:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/7/2024 5:52:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	2/7/2024 5:52:00 PM
Surr: 4-Bromofluorobenzene	96.0	39.1-146		%Rec	1	2/7/2024 5:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 9:16:09 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP11
Project: Keel B INJ
Collection Date: 1/29/2024 8:40:00 AM
Lab ID: 2402163-011
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/6/2024 6:52:22 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2024 6:52:22 PM
Surr: DNOP	75.9	61.2-134		%Rec	1	2/6/2024 6:52:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/7/2024 6:36:00 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 6:36:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	2/7/2024 6:36:00 PM
Toluene	ND	0.049		mg/Kg	1	2/7/2024 6:36:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/7/2024 6:36:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/7/2024 6:36:00 PM
Surr: 4-Bromofluorobenzene	96.1	39.1-146		%Rec	1	2/7/2024 6:36:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 9:31:18 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP12
Project: Keel B INJ
Collection Date: 1/29/2024 8:50:00 AM
Lab ID: 2402163-012
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/6/2024 7:04:12 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/6/2024 7:04:12 PM
Surr: DNOP	80.5	61.2-134		%Rec	1	2/6/2024 7:04:12 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/7/2024 6:58:00 PM
Surr: BFB	107	15-244		%Rec	1	2/7/2024 6:58:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 6:58:00 PM
Toluene	ND	0.046		mg/Kg	1	2/7/2024 6:58:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	2/7/2024 6:58:00 PM
Xylenes, Total	ND	0.092		mg/Kg	1	2/7/2024 6:58:00 PM
Surr: 4-Bromofluorobenzene	108	39.1-146		%Rec	1	2/7/2024 6:58:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	61		mg/Kg	20	2/7/2024 9:46:27 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel B INJ
Lab ID: 2402163-013 **Matrix:** SOIL

Client Sample ID: SP13
Collection Date: 1/29/2024 9:00:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/6/2024 7:16:09 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2024 7:16:09 PM
Surr: DNOP	85.5	61.2-134		%Rec	1	2/6/2024 7:16:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/7/2024 7:20:00 PM
Surr: BFB	99.6	15-244		%Rec	1	2/7/2024 7:20:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 7:20:00 PM
Toluene	ND	0.048		mg/Kg	1	2/7/2024 7:20:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/7/2024 7:20:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/7/2024 7:20:00 PM
Surr: 4-Bromofluorobenzene	96.2	39.1-146		%Rec	1	2/7/2024 7:20:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 10:01:33 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP14
Project: Keel B INJ
Collection Date: 1/29/2024 9:10:00 AM
Lab ID: 2402163-014
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/6/2024 7:28:01 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2024 7:28:01 PM
Surr: DNOP	77.9	61.2-134		%Rec	1	2/6/2024 7:28:01 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/7/2024 7:42:00 PM
Surr: BFB	103	15-244		%Rec	1	2/7/2024 7:42:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 7:42:00 PM
Toluene	ND	0.046		mg/Kg	1	2/7/2024 7:42:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	2/7/2024 7:42:00 PM
Xylenes, Total	ND	0.092		mg/Kg	1	2/7/2024 7:42:00 PM
Surr: 4-Bromofluorobenzene	96.3	39.1-146		%Rec	1	2/7/2024 7:42:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 10:16:43 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP15
Project: Keel B INJ
Collection Date: 1/29/2024 9:20:00 AM
Lab ID: 2402163-015
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/6/2024 7:39:55 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/6/2024 7:39:55 PM
Surr: DNOP	80.4	61.2-134		%Rec	1	2/6/2024 7:39:55 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/7/2024 8:03:00 PM
Surr: BFB	101	15-244		%Rec	1	2/7/2024 8:03:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	2/7/2024 8:03:00 PM
Toluene	ND	0.050		mg/Kg	1	2/7/2024 8:03:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/7/2024 8:03:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/7/2024 8:03:00 PM
Surr: 4-Bromofluorobenzene	97.1	39.1-146		%Rec	1	2/7/2024 8:03:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 11:02:50 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP16
Project: Keel B INJ
Collection Date: 1/29/2024 9:30:00 AM
Lab ID: 2402163-016
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/6/2024 7:51:48 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/6/2024 7:51:48 PM
Surr: DNOP	86.9	61.2-134		%Rec	1	2/6/2024 7:51:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 8:25:00 PM
Surr: BFB	101	15-244		%Rec	1	2/7/2024 8:25:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 8:25:00 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 8:25:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 8:25:00 PM
Xylenes, Total	ND	0.093		mg/Kg	1	2/7/2024 8:25:00 PM
Surr: 4-Bromofluorobenzene	95.0	39.1-146		%Rec	1	2/7/2024 8:25:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 11:17:27 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP17
Project: Keel B INJ
Collection Date: 1/29/2024 9:40:00 AM
Lab ID: 2402163-017
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/6/2024 8:03:41 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/6/2024 8:03:41 PM
Surr: DNOP	84.9	61.2-134		%Rec	1	2/6/2024 8:03:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/7/2024 8:47:00 PM
Surr: BFB	102	15-244		%Rec	1	2/7/2024 8:47:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	2/7/2024 8:47:00 PM
Toluene	ND	0.050		mg/Kg	1	2/7/2024 8:47:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/7/2024 8:47:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/7/2024 8:47:00 PM
Surr: 4-Bromofluorobenzene	96.5	39.1-146		%Rec	1	2/7/2024 8:47:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 11:32:36 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP18
Project: Keel B INJ
Collection Date: 1/29/2024 9:50:00 AM
Lab ID: 2402163-018
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/6/2024 8:15:38 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/6/2024 8:15:38 PM
Surr: DNOP	88.4	61.2-134		%Rec	1	2/6/2024 8:15:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 9:09:00 PM
Surr: BFB	103	15-244		%Rec	1	2/7/2024 9:09:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 9:09:00 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 9:09:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 9:09:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/7/2024 9:09:00 PM
Surr: 4-Bromofluorobenzene	94.0	39.1-146		%Rec	1	2/7/2024 9:09:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 11:47:45 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP19
Project: Keel B INJ
Collection Date: 1/29/2024 10:00:00 AM
Lab ID: 2402163-019
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	2/6/2024 8:27:30 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	2/6/2024 8:27:30 PM
Surr: DNOP	86.5	61.2-134		%Rec	1	2/6/2024 8:27:30 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/7/2024 9:31:00 PM
Surr: BFB	105	15-244		%Rec	1	2/7/2024 9:31:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 9:31:00 PM
Toluene	ND	0.048		mg/Kg	1	2/7/2024 9:31:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/7/2024 9:31:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/7/2024 9:31:00 PM
Surr: 4-Bromofluorobenzene	96.8	39.1-146		%Rec	1	2/7/2024 9:31:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 12:02:54 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP20
Project: Keel B INJ
Collection Date: 1/29/2024 10:10:00 AM
Lab ID: 2402163-020
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/6/2024 8:39:26 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2024 8:39:26 PM
Surr: DNOP	89.4	61.2-134		%Rec	1	2/6/2024 8:39:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/7/2024 9:53:00 PM
Surr: BFB	100	15-244		%Rec	1	2/7/2024 9:53:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	2/7/2024 9:53:00 PM
Toluene	ND	0.049		mg/Kg	1	2/7/2024 9:53:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/7/2024 9:53:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/7/2024 9:53:00 PM
Surr: 4-Bromofluorobenzene	93.9	39.1-146		%Rec	1	2/7/2024 9:53:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 12:18:05 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP21
Project: Keel B INJ
Collection Date: 1/29/2024 10:20:00 AM
Lab ID: 2402163-021
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/6/2024 9:50:37 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2024 9:50:37 PM
Surr: DNOP	77.2	61.2-134		%Rec	1	2/6/2024 9:50:37 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 2:19:14 AM
Surr: BFB	94.4	15-244		%Rec	1	2/9/2024 2:19:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 2:19:14 AM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 2:19:14 AM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 2:19:14 AM
Xylenes, Total	ND	0.099		mg/Kg	1	2/9/2024 2:19:14 AM
Surr: 4-Bromofluorobenzene	83.9	39.1-146		%Rec	1	2/9/2024 2:19:14 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	2/7/2024 11:52:18 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP22
Project: Keel B INJ
Collection Date: 1/29/2024 10:30:00 AM
Lab ID: 2402163-022
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/6/2024 10:02:27 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/6/2024 10:02:27 PM
Surr: DNOP	80.7	61.2-134		%Rec	1	2/6/2024 10:02:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 1:08:13 AM
Surr: BFB	94.0	15-244		%Rec	1	2/8/2024 1:08:13 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 1:08:13 AM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 1:08:13 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 1:08:13 AM
Xylenes, Total	ND	0.099		mg/Kg	1	2/8/2024 1:08:13 AM
Surr: 4-Bromofluorobenzene	83.3	39.1-146		%Rec	1	2/8/2024 1:08:13 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 12:37:46 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP23
Project: Keel B INJ
Collection Date: 1/29/2024 10:40:00 AM
Lab ID: 2402163-023
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/6/2024 10:14:19 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/6/2024 10:14:19 PM
Surr: DNOP	82.8	61.2-134		%Rec	1	2/6/2024 10:14:19 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 2:18:42 AM
Surr: BFB	93.0	15-244		%Rec	1	2/8/2024 2:18:42 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 2:18:42 AM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 2:18:42 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 2:18:42 AM
Xylenes, Total	ND	0.099		mg/Kg	1	2/8/2024 2:18:42 AM
Surr: 4-Bromofluorobenzene	80.9	39.1-146		%Rec	1	2/8/2024 2:18:42 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 1:53:33 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP24
Project: Keel B INJ
Collection Date: 1/29/2024 10:50:00 AM
Lab ID: 2402163-024
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/6/2024 10:26:17 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/6/2024 10:26:17 PM
Surr: DNOP	83.6	61.2-134		%Rec	1	2/6/2024 10:26:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 2:42:22 AM
Surr: BFB	93.2	15-244		%Rec	1	2/8/2024 2:42:22 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 2:42:22 AM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 2:42:22 AM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 2:42:22 AM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 2:42:22 AM
Surr: 4-Bromofluorobenzene	82.2	39.1-146		%Rec	1	2/8/2024 2:42:22 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 2:08:44 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP25
Project: Keel B INJ
Collection Date: 1/29/2024 11:00:00 AM
Lab ID: 2402163-025
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/6/2024 10:38:05 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2024 10:38:05 PM
Surr: DNOP	83.4	61.2-134		%Rec	1	2/6/2024 10:38:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 3:05:48 AM
Surr: BFB	92.3	15-244		%Rec	1	2/8/2024 3:05:48 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 3:05:48 AM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 3:05:48 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 3:05:48 AM
Xylenes, Total	ND	0.096		mg/Kg	1	2/8/2024 3:05:48 AM
Surr: 4-Bromofluorobenzene	81.5	39.1-146		%Rec	1	2/8/2024 3:05:48 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 2:23:54 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP26
Project: Keel B INJ
Collection Date: 1/29/2024 11:10:00 AM
Lab ID: 2402163-026
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/6/2024 10:49:55 PM
Motor Oil Range Organics (MRO)	52	49		mg/Kg	1	2/6/2024 10:49:55 PM
Surr: DNOP	86.8	61.2-134		%Rec	1	2/6/2024 10:49:55 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 3:29:25 AM
Surr: BFB	96.6	15-244		%Rec	1	2/8/2024 3:29:25 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 3:29:25 AM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 3:29:25 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 3:29:25 AM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 3:29:25 AM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	2/8/2024 3:29:25 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 2:39:03 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel B INJ
Lab ID: 2402163-027 **Matrix:** SOIL

Client Sample ID: SP27
Collection Date: 1/29/2024 11:20:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/6/2024 11:01:39 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2024 11:01:39 PM
Surr: DNOP	87.5	61.2-134		%Rec	1	2/6/2024 11:01:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 3:52:54 AM
Surr: BFB	92.3	15-244		%Rec	1	2/8/2024 3:52:54 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 3:52:54 AM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 3:52:54 AM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 3:52:54 AM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 3:52:54 AM
Surr: 4-Bromofluorobenzene	81.6	39.1-146		%Rec	1	2/8/2024 3:52:54 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 2:54:12 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP28
Project: Keel B INJ
Collection Date: 1/29/2024 11:30:00 AM
Lab ID: 2402163-028
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	2/6/2024 11:13:25 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	2/6/2024 11:13:25 PM
Surr: DNOP	85.2	61.2-134		%Rec	1	2/6/2024 11:13:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 4:16:33 AM
Surr: BFB	95.6	15-244		%Rec	1	2/8/2024 4:16:33 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 4:16:33 AM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 4:16:33 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 4:16:33 AM
Xylenes, Total	ND	0.096		mg/Kg	1	2/8/2024 4:16:33 AM
Surr: 4-Bromofluorobenzene	84.3	39.1-146		%Rec	1	2/8/2024 4:16:33 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 3:09:22 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP29
Project: Keel B INJ
Collection Date: 1/29/2024 11:40:00 AM
Lab ID: 2402163-029
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/6/2024 11:25:12 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/6/2024 11:25:12 PM
Surr: DNOP	86.4	61.2-134		%Rec	1	2/6/2024 11:25:12 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 4:40:01 AM
Surr: BFB	90.7	15-244		%Rec	1	2/8/2024 4:40:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 4:40:01 AM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 4:40:01 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 4:40:01 AM
Xylenes, Total	ND	0.095		mg/Kg	1	2/8/2024 4:40:01 AM
Surr: 4-Bromofluorobenzene	79.6	39.1-146		%Rec	1	2/8/2024 4:40:01 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 3:24:31 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP30
Project: Keel B INJ
Collection Date: 1/29/2024 11:50:00 AM
Lab ID: 2402163-030
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	2/6/2024 11:37:00 PM
Motor Oil Range Organics (MRO)	47	42		mg/Kg	1	2/6/2024 11:37:00 PM
Surr: DNOP	79.2	61.2-134		%Rec	1	2/6/2024 11:37:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 5:03:23 AM
Surr: BFB	92.6	15-244		%Rec	1	2/8/2024 5:03:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 5:03:23 AM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 5:03:23 AM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 5:03:23 AM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 5:03:23 AM
Surr: 4-Bromofluorobenzene	82.6	39.1-146		%Rec	1	2/8/2024 5:03:23 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 3:39:41 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP31
Project: Keel B INJ
Collection Date: 1/29/2024 12:00:00 PM
Lab ID: 2402163-031
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/7/2024 12:00:31 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 12:00:31 AM
Surr: DNOP	86.2	61.2-134		%Rec	1	2/7/2024 12:00:31 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 11:16:25 AM
Surr: BFB	99.3	15-244		%Rec	1	2/8/2024 11:16:25 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 11:16:25 AM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 11:16:25 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 11:16:25 AM
Xylenes, Total	ND	0.095		mg/Kg	1	2/8/2024 11:16:25 AM
Surr: 4-Bromofluorobenzene	88.3	39.1-146		%Rec	1	2/8/2024 11:16:25 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 3:54:51 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP32
Project: Keel B INJ
Collection Date: 1/29/2024 12:10:00 PM
Lab ID: 2402163-032
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	2/7/2024 12:12:19 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/7/2024 12:12:19 AM
Surr: DNOP	85.2	61.2-134		%Rec	1	2/7/2024 12:12:19 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/8/2024 11:40:04 AM
Surr: BFB	95.6	15-244		%Rec	1	2/8/2024 11:40:04 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 11:40:04 AM
Toluene	ND	0.047		mg/Kg	1	2/8/2024 11:40:04 AM
Ethylbenzene	ND	0.047		mg/Kg	1	2/8/2024 11:40:04 AM
Xylenes, Total	ND	0.095		mg/Kg	1	2/8/2024 11:40:04 AM
Surr: 4-Bromofluorobenzene	84.0	39.1-146		%Rec	1	2/8/2024 11:40:04 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 4:09:59 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel B INJ
Lab ID: 2402163-033 **Matrix:** SOIL

Client Sample ID: SP33
Collection Date: 1/29/2024 12:20:00 PM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/7/2024 12:24:04 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 12:24:04 AM
Surr: DNOP	85.2	61.2-134		%Rec	1	2/7/2024 12:24:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 12:03:44 PM
Surr: BFB	97.8	15-244		%Rec	1	2/8/2024 12:03:44 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 12:03:44 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 12:03:44 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 12:03:44 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/8/2024 12:03:44 PM
Surr: 4-Bromofluorobenzene	86.2	39.1-146		%Rec	1	2/8/2024 12:03:44 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	2/7/2024 4:55:28 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel B INJ
Lab ID: 2402163-034 **Matrix:** SOIL

Client Sample ID: SP34
Collection Date: 1/29/2024 12:30:00 PM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	2/7/2024 12:35:50 AM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	2/7/2024 12:35:50 AM
Surr: DNOP	84.3	61.2-134		%Rec	1	2/7/2024 12:35:50 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 12:27:30 PM
Surr: BFB	97.9	15-244		%Rec	1	2/8/2024 12:27:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 12:27:30 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 12:27:30 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 12:27:30 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/8/2024 12:27:30 PM
Surr: 4-Bromofluorobenzene	86.0	39.1-146		%Rec	1	2/8/2024 12:27:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 5:13:36 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP35
Project: Keel B INJ
Collection Date: 1/29/2024 12:40:00 PM
Lab ID: 2402163-035
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/7/2024 12:47:38 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/7/2024 12:47:38 AM
Surr: DNOP	87.7	61.2-134		%Rec	1	2/7/2024 12:47:38 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 12:51:22 PM
Surr: BFB	102	15-244		%Rec	1	2/8/2024 12:51:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 12:51:22 PM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 12:51:22 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 12:51:22 PM
Xylenes, Total	ND	0.095		mg/Kg	1	2/8/2024 12:51:22 PM
Surr: 4-Bromofluorobenzene	87.0	39.1-146		%Rec	1	2/8/2024 12:51:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 5:28:45 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP36
Project: Keel B INJ
Collection Date: 1/29/2024 12:50:00 PM
Lab ID: 2402163-036
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/7/2024 12:59:23 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 12:59:23 AM
Surr: DNOP	83.0	61.2-134		%Rec	1	2/7/2024 12:59:23 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 1:15:19 PM
Surr: BFB	99.1	15-244		%Rec	1	2/8/2024 1:15:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 1:15:19 PM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 1:15:19 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 1:15:19 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/8/2024 1:15:19 PM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	2/8/2024 1:15:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 5:43:54 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP37
Project: Keel B INJ
Collection Date: 1/29/2024 1:00:00 PM
Lab ID: 2402163-037
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/7/2024 1:11:13 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 1:11:13 AM
Surr: DNOP	83.0	61.2-134		%Rec	1	2/7/2024 1:11:13 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 1:39:16 PM
Surr: BFB	103	15-244		%Rec	1	2/8/2024 1:39:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 1:39:16 PM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 1:39:16 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 1:39:16 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 1:39:16 PM
Surr: 4-Bromofluorobenzene	88.7	39.1-146		%Rec	1	2/8/2024 1:39:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 5:59:03 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP38
Project: Keel B INJ
Collection Date: 1/29/2024 1:10:00 PM
Lab ID: 2402163-038
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/7/2024 1:22:58 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 1:22:58 AM
Surr: DNOP	84.2	61.2-134		%Rec	1	2/7/2024 1:22:58 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 2:03:13 PM
Surr: BFB	103	15-244		%Rec	1	2/8/2024 2:03:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 2:03:13 PM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 2:03:13 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 2:03:13 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/8/2024 2:03:13 PM
Surr: 4-Bromofluorobenzene	89.3	39.1-146		%Rec	1	2/8/2024 2:03:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 6:14:13 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP39
Project: Keel B INJ
Collection Date: 1/29/2024 1:20:00 PM
Lab ID: 2402163-039
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	2/7/2024 1:34:46 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/7/2024 1:34:46 AM
Surr: DNOP	83.1	61.2-134		%Rec	1	2/7/2024 1:34:46 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 2:27:14 PM
Surr: BFB	103	15-244		%Rec	1	2/8/2024 2:27:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 2:27:14 PM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 2:27:14 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 2:27:14 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/8/2024 2:27:14 PM
Surr: 4-Bromofluorobenzene	90.0	39.1-146		%Rec	1	2/8/2024 2:27:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 6:29:23 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP40
Project: Keel B INJ
Collection Date: 1/29/2024 1:30:00 PM
Lab ID: 2402163-040
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/7/2024 1:46:31 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 1:46:31 AM
Surr: DNOP	80.0	61.2-134		%Rec	1	2/7/2024 1:46:31 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 2:51:17 PM
Surr: BFB	103	15-244		%Rec	1	2/8/2024 2:51:17 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 2:51:17 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 2:51:17 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 2:51:17 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/8/2024 2:51:17 PM
Surr: 4-Bromofluorobenzene	88.0	39.1-146		%Rec	1	2/8/2024 2:51:17 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/7/2024 6:44:32 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP41
Project: Keel B INJ
Collection Date: 1/29/2024 1:40:00 PM
Lab ID: 2402163-041
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/7/2024 11:21:16 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/7/2024 11:21:16 AM
Surr: DNOP	85.7	61.2-134		%Rec	1	2/7/2024 11:21:16 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 3:39:16 PM
Surr: BFB	106	15-244		%Rec	1	2/8/2024 3:39:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 3:39:16 PM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 3:39:16 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 3:39:16 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/8/2024 3:39:16 PM
Surr: 4-Bromofluorobenzene	90.5	39.1-146		%Rec	1	2/8/2024 3:39:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	2/8/2024 11:52:04 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP42
Project: Keel B INJ
Collection Date: 1/29/2024 1:50:00 PM
Lab ID: 2402163-042
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/7/2024 11:57:29 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 11:57:29 AM
Surr: DNOP	80.6	61.2-134		%Rec	1	2/7/2024 11:57:29 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 4:03:14 PM
Surr: BFB	104	15-244		%Rec	1	2/8/2024 4:03:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 4:03:14 PM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 4:03:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 4:03:14 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/8/2024 4:03:14 PM
Surr: 4-Bromofluorobenzene	89.1	39.1-146		%Rec	1	2/8/2024 4:03:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	2/8/2024 12:30:40 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP43
Project: Keel B INJ
Collection Date: 1/29/2024 2:00:00 PM
Lab ID: 2402163-043
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/7/2024 12:09:32 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/7/2024 12:09:32 PM
Surr: DNOP	83.0	61.2-134		%Rec	1	2/7/2024 12:09:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 4:27:12 PM
Surr: BFB	104	15-244		%Rec	1	2/8/2024 4:27:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 4:27:12 PM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 4:27:12 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 4:27:12 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/8/2024 4:27:12 PM
Surr: 4-Bromofluorobenzene	87.6	39.1-146		%Rec	1	2/8/2024 4:27:12 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 5:25:09 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP44
Project: Keel B INJ
Collection Date: 1/29/2024 2:10:00 PM
Lab ID: 2402163-044
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/7/2024 12:21:39 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/7/2024 12:21:39 PM
Surr: DNOP	81.1	61.2-134		%Rec	1	2/7/2024 12:21:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 4:51:08 PM
Surr: BFB	104	15-244		%Rec	1	2/8/2024 4:51:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 4:51:08 PM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 4:51:08 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 4:51:08 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/8/2024 4:51:08 PM
Surr: 4-Bromofluorobenzene	89.4	39.1-146		%Rec	1	2/8/2024 4:51:08 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 5:40:18 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP45
Project: Keel B INJ
Collection Date: 1/29/2024 2:20:00 PM
Lab ID: 2402163-045
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/7/2024 12:33:41 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/7/2024 12:33:41 PM
Surr: DNOP	80.5	61.2-134		%Rec	1	2/7/2024 12:33:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 5:15:03 PM
Surr: BFB	103	15-244		%Rec	1	2/8/2024 5:15:03 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 5:15:03 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 5:15:03 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 5:15:03 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/8/2024 5:15:03 PM
Surr: 4-Bromofluorobenzene	86.8	39.1-146		%Rec	1	2/8/2024 5:15:03 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	61		mg/Kg	20	2/8/2024 6:25:45 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP46
Project: Keel B INJ
Collection Date: 1/29/2024 2:30:00 PM
Lab ID: 2402163-046
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/7/2024 12:45:47 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 12:45:47 PM
Surr: DNOP	87.2	61.2-134		%Rec	1	2/7/2024 12:45:47 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 5:39:00 PM
Surr: BFB	103	15-244		%Rec	1	2/8/2024 5:39:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 5:39:00 PM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 5:39:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 5:39:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 5:39:00 PM
Surr: 4-Bromofluorobenzene	88.8	39.1-146		%Rec	1	2/8/2024 5:39:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 6:40:54 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP47
Project: Keel B INJ
Collection Date: 1/29/2024 2:40:00 PM
Lab ID: 2402163-047
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/7/2024 1:34:18 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 1:34:18 PM
Surr: DNOP	80.1	61.2-134		%Rec	1	2/7/2024 1:34:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 6:02:55 PM
Surr: BFB	103	15-244		%Rec	1	2/8/2024 6:02:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 6:02:55 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 6:02:55 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 6:02:55 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/8/2024 6:02:55 PM
Surr: 4-Bromofluorobenzene	90.0	39.1-146		%Rec	1	2/8/2024 6:02:55 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 6:56:04 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP48
Project: Keel B INJ
Collection Date: 1/29/2024 2:50:00 PM
Lab ID: 2402163-048
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/7/2024 1:46:30 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/7/2024 1:46:30 PM
Surr: DNOP	83.6	61.2-134		%Rec	1	2/7/2024 1:46:30 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/8/2024 6:26:49 PM
Surr: BFB	106	15-244		%Rec	1	2/8/2024 6:26:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 6:26:49 PM
Toluene	ND	0.048		mg/Kg	1	2/8/2024 6:26:49 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/8/2024 6:26:49 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/8/2024 6:26:49 PM
Surr: 4-Bromofluorobenzene	90.2	39.1-146		%Rec	1	2/8/2024 6:26:49 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 7:11:13 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP49
Project: Keel B INJ
Collection Date: 1/29/2024 3:00:00 PM
Lab ID: 2402163-049
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/7/2024 1:58:39 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 1:58:39 PM
Surr: DNOP	75.8	61.2-134		%Rec	1	2/7/2024 1:58:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 6:50:38 PM
Surr: BFB	104	15-244		%Rec	1	2/8/2024 6:50:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 6:50:38 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 6:50:38 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 6:50:38 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/8/2024 6:50:38 PM
Surr: 4-Bromofluorobenzene	90.4	39.1-146		%Rec	1	2/8/2024 6:50:38 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	2/8/2024 7:26:23 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel B INJ
Lab ID: 2402163-050 **Matrix:** SOIL

Client Sample ID: SP50
Collection Date: 1/29/2024 3:10:00 PM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/7/2024 2:22:49 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/7/2024 2:22:49 PM
Surr: DNOP	80.8	61.2-134		%Rec	1	2/7/2024 2:22:49 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 7:14:27 PM
Surr: BFB	102	15-244		%Rec	1	2/8/2024 7:14:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 7:14:27 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 7:14:27 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 7:14:27 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 7:14:27 PM
Surr: 4-Bromofluorobenzene	87.7	39.1-146		%Rec	1	2/8/2024 7:14:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 7:41:32 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP51
Project: Keel B INJ
Collection Date: 1/29/2024 3:20:00 PM
Lab ID: 2402163-051
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/7/2024 2:34:52 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 2:34:52 PM
Surr: DNOP	80.1	61.2-134		%Rec	1	2/7/2024 2:34:52 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 10:00:19 PM
Surr: BFB	100	15-244		%Rec	1	2/8/2024 10:00:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 10:00:19 PM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 10:00:19 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 10:00:19 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/8/2024 10:00:19 PM
Surr: 4-Bromofluorobenzene	87.5	39.1-146		%Rec	1	2/8/2024 10:00:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 7:56:40 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP52
Project: Keel B INJ
Collection Date: 1/29/2024 3:30:00 PM
Lab ID: 2402163-052
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/7/2024 2:46:59 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 2:46:59 PM
Surr: DNOP	82.5	61.2-134		%Rec	1	2/7/2024 2:46:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 10:23:55 PM
Surr: BFB	97.1	15-244		%Rec	1	2/8/2024 10:23:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 10:23:55 PM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 10:23:55 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 10:23:55 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/8/2024 10:23:55 PM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	2/8/2024 10:23:55 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	2/8/2024 8:11:51 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP53
Project: Keel B INJ
Collection Date: 1/29/2024 3:40:00 PM
Lab ID: 2402163-053
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/7/2024 2:59:20 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 2:59:20 PM
Surr: DNOP	76.5	61.2-134		%Rec	1	2/7/2024 2:59:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 10:47:25 PM
Surr: BFB	95.5	15-244		%Rec	1	2/8/2024 10:47:25 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 10:47:25 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 10:47:25 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 10:47:25 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 10:47:25 PM
Surr: 4-Bromofluorobenzene	84.6	39.1-146		%Rec	1	2/8/2024 10:47:25 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 8:27:00 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP54
Project: Keel B INJ
Collection Date: 1/29/2024 4:00:00 PM
Lab ID: 2402163-054
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/7/2024 3:11:28 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 3:11:28 PM
Surr: DNOP	75.6	61.2-134		%Rec	1	2/7/2024 3:11:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 11:10:55 PM
Surr: BFB	93.9	15-244		%Rec	1	2/8/2024 11:10:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/8/2024 11:10:55 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 11:10:55 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 11:10:55 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/8/2024 11:10:55 PM
Surr: 4-Bromofluorobenzene	82.7	39.1-146		%Rec	1	2/8/2024 11:10:55 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 8:42:09 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP55
Project: Keel B INJ
Collection Date: 1/29/2024 4:10:00 PM
Lab ID: 2402163-055
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/7/2024 3:23:41 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/7/2024 3:23:41 PM
Surr: DNOP	78.9	61.2-134		%Rec	1	2/7/2024 3:23:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/8/2024 11:34:21 PM
Surr: BFB	96.0	15-244		%Rec	1	2/8/2024 11:34:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 11:34:21 PM
Toluene	ND	0.049		mg/Kg	1	2/8/2024 11:34:21 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/8/2024 11:34:21 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/8/2024 11:34:21 PM
Surr: 4-Bromofluorobenzene	84.5	39.1-146		%Rec	1	2/8/2024 11:34:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 9:27:44 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP56
Project: Keel B INJ
Collection Date: 1/29/2024 4:20:00 PM
Lab ID: 2402163-056
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/7/2024 3:35:54 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 3:35:54 PM
Surr: DNOP	76.6	61.2-134		%Rec	1	2/7/2024 3:35:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/8/2024 11:58:09 PM
Surr: BFB	94.1	15-244		%Rec	1	2/8/2024 11:58:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/8/2024 11:58:09 PM
Toluene	ND	0.050		mg/Kg	1	2/8/2024 11:58:09 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/8/2024 11:58:09 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/8/2024 11:58:09 PM
Surr: 4-Bromofluorobenzene	83.4	39.1-146		%Rec	1	2/8/2024 11:58:09 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 9:42:53 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP57
Project: Keel B INJ
Collection Date: 1/29/2024 4:30:00 PM
Lab ID: 2402163-057
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/7/2024 3:48:14 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 3:48:14 PM
Surr: DNOP	75.3	61.2-134		%Rec	1	2/7/2024 3:48:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 12:21:32 AM
Surr: BFB	94.4	15-244		%Rec	1	2/9/2024 12:21:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 12:21:32 AM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 12:21:32 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 12:21:32 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/9/2024 12:21:32 AM
Surr: 4-Bromofluorobenzene	82.7	39.1-146		%Rec	1	2/9/2024 12:21:32 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 9:58:02 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP58
Project: Keel B INJ
Collection Date: 1/29/2024 4:40:00 PM
Lab ID: 2402163-058
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/7/2024 4:00:31 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 4:00:31 PM
Surr: DNOP	76.1	61.2-134		%Rec	1	2/7/2024 4:00:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/9/2024 12:45:12 AM
Surr: BFB	94.6	15-244		%Rec	1	2/9/2024 12:45:12 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/9/2024 12:45:12 AM
Toluene	ND	0.048		mg/Kg	1	2/9/2024 12:45:12 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/9/2024 12:45:12 AM
Xylenes, Total	ND	0.097		mg/Kg	1	2/9/2024 12:45:12 AM
Surr: 4-Bromofluorobenzene	84.2	39.1-146		%Rec	1	2/9/2024 12:45:12 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 10:13:13 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP59
Project: Keel B INJ
Collection Date: 1/29/2024 4:45:00 PM
Lab ID: 2402163-059
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/7/2024 4:12:46 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 4:12:46 PM
Surr: DNOP	78.3	61.2-134		%Rec	1	2/7/2024 4:12:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 1:08:37 AM
Surr: BFB	94.0	15-244		%Rec	1	2/9/2024 1:08:37 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 1:08:37 AM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 1:08:37 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 1:08:37 AM
Xylenes, Total	ND	0.099		mg/Kg	1	2/9/2024 1:08:37 AM
Surr: 4-Bromofluorobenzene	83.2	39.1-146		%Rec	1	2/9/2024 1:08:37 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 10:28:21 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP60
Project: Keel B INJ
Collection Date: 1/29/2024 4:50:00 PM
Lab ID: 2402163-060
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/7/2024 4:25:00 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/7/2024 4:25:00 PM
Surr: DNOP	78.7	61.2-134		%Rec	1	2/7/2024 4:25:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/9/2024 1:32:23 AM
Surr: BFB	97.2	15-244		%Rec	1	2/9/2024 1:32:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/9/2024 1:32:23 AM
Toluene	ND	0.048		mg/Kg	1	2/9/2024 1:32:23 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/9/2024 1:32:23 AM
Xylenes, Total	ND	0.095		mg/Kg	1	2/9/2024 1:32:23 AM
Surr: 4-Bromofluorobenzene	85.6	39.1-146		%Rec	1	2/9/2024 1:32:23 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 10:43:31 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP61
Project: Keel B INJ
Collection Date: 1/29/2024 5:00:00 PM
Lab ID: 2402163-061
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/7/2024 5:14:06 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/7/2024 5:14:06 PM
Surr: DNOP	79.1	61.2-134		%Rec	1	2/7/2024 5:14:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 1:07:56 PM
Surr: BFB	94.1	15-244		%Rec	1	2/9/2024 1:07:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 1:07:56 PM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 1:07:56 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 1:07:56 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/9/2024 1:07:56 PM
Surr: 4-Bromofluorobenzene	83.8	39.1-146		%Rec	1	2/9/2024 1:07:56 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 10:20:48 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP62
Project: Keel B INJ
Collection Date: 1/30/2024 7:00:00 AM
Lab ID: 2402163-062
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/7/2024 5:50:57 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/7/2024 5:50:57 PM
Surr: DNOP	75.5	61.2-134		%Rec	1	2/7/2024 5:50:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 1:31:35 PM
Surr: BFB	96.4	15-244		%Rec	1	2/9/2024 1:31:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 1:31:35 PM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 1:31:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 1:31:35 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/9/2024 1:31:35 PM
Surr: 4-Bromofluorobenzene	85.0	39.1-146		%Rec	1	2/9/2024 1:31:35 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 11:06:16 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP63
Project: Keel B INJ
Collection Date: 1/30/2024 7:10:00 AM
Lab ID: 2402163-063
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/7/2024 6:03:03 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 6:03:03 PM
Surr: DNOP	76.1	61.2-134		%Rec	1	2/7/2024 6:03:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 1:55:21 PM
Surr: BFB	98.0	15-244		%Rec	1	2/9/2024 1:55:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 1:55:21 PM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 1:55:21 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 1:55:21 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/9/2024 1:55:21 PM
Surr: 4-Bromofluorobenzene	84.2	39.1-146		%Rec	1	2/9/2024 1:55:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 12:22:02 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP64
Project: Keel B INJ
Collection Date: 1/30/2024 7:20:00 AM
Lab ID: 2402163-064
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/7/2024 6:15:08 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 6:15:08 PM
Surr: DNOP	78.6	61.2-134		%Rec	1	2/7/2024 6:15:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 2:19:10 PM
Surr: BFB	96.9	15-244		%Rec	1	2/9/2024 2:19:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 2:19:10 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 2:19:10 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 2:19:10 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/9/2024 2:19:10 PM
Surr: 4-Bromofluorobenzene	85.4	39.1-146		%Rec	1	2/9/2024 2:19:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	2/8/2024 12:37:11 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP65
Project: Keel B INJ
Collection Date: 1/30/2024 7:30:00 AM
Lab ID: 2402163-065
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/7/2024 6:27:12 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 6:27:12 PM
Surr: DNOP	80.8	61.2-134		%Rec	1	2/7/2024 6:27:12 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 2:42:58 PM
Surr: BFB	99.4	15-244		%Rec	1	2/9/2024 2:42:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 2:42:58 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 2:42:58 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 2:42:58 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/9/2024 2:42:58 PM
Surr: 4-Bromofluorobenzene	86.9	39.1-146		%Rec	1	2/9/2024 2:42:58 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 12:52:21 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel B INJ
Lab ID: 2402163-066 **Matrix:** SOIL

Client Sample ID: SP66
Collection Date: 1/30/2024 7:40:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/7/2024 6:39:13 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 6:39:13 PM
Surr: DNOP	78.5	61.2-134		%Rec	1	2/7/2024 6:39:13 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 3:06:47 PM
Surr: BFB	97.5	15-244		%Rec	1	2/9/2024 3:06:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 3:06:47 PM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 3:06:47 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 3:06:47 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/9/2024 3:06:47 PM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	2/9/2024 3:06:47 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 1:07:30 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP67
Project: Keel B INJ
Collection Date: 1/30/2024 7:50:00 AM
Lab ID: 2402163-067
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/7/2024 6:51:17 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 6:51:17 PM
Surr: DNOP	80.9	61.2-134		%Rec	1	2/7/2024 6:51:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 3:30:37 PM
Surr: BFB	100	15-244		%Rec	1	2/9/2024 3:30:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 3:30:37 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 3:30:37 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 3:30:37 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/9/2024 3:30:37 PM
Surr: 4-Bromofluorobenzene	86.1	39.1-146		%Rec	1	2/9/2024 3:30:37 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 1:22:40 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP68
Project: Keel B INJ
Collection Date: 1/30/2024 8:00:00 AM
Lab ID: 2402163-068
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/7/2024 7:03:18 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 7:03:18 PM
Surr: DNOP	81.3	61.2-134		%Rec	1	2/7/2024 7:03:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 3:54:26 PM
Surr: BFB	102	15-244		%Rec	1	2/9/2024 3:54:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/9/2024 3:54:26 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 3:54:26 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 3:54:26 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/9/2024 3:54:26 PM
Surr: 4-Bromofluorobenzene	88.0	39.1-146		%Rec	1	2/9/2024 3:54:26 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 1:37:49 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP69
Project: Keel B INJ
Collection Date: 1/30/2024 8:10:00 AM
Lab ID: 2402163-069
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	2/7/2024 7:15:15 PM
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	2/7/2024 7:15:15 PM
Surr: DNOP	81.7	61.2-134		%Rec	1	2/7/2024 7:15:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 4:18:19 PM
Surr: BFB	105	15-244		%Rec	1	2/9/2024 4:18:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 4:18:19 PM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 4:18:19 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 4:18:19 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/9/2024 4:18:19 PM
Surr: 4-Bromofluorobenzene	88.4	39.1-146		%Rec	1	2/9/2024 4:18:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 1:52:57 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel B INJ
Lab ID: 2402163-070 **Matrix:** SOIL

Client Sample ID: SP70
Collection Date: 1/30/2024 8:20:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/7/2024 7:39:09 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/7/2024 7:39:09 PM
Surr: DNOP	86.4	61.2-134		%Rec	1	2/7/2024 7:39:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 4:42:06 PM
Surr: BFB	103	15-244		%Rec	1	2/9/2024 4:42:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 4:42:06 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 4:42:06 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 4:42:06 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/9/2024 4:42:06 PM
Surr: 4-Bromofluorobenzene	88.5	39.1-146		%Rec	1	2/9/2024 4:42:06 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 2:08:07 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP71
Project: Keel B INJ
Collection Date: 1/30/2024 8:30:00 AM
Lab ID: 2402163-071
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/7/2024 7:51:03 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 7:51:03 PM
Surr: DNOP	84.8	61.2-134		%Rec	1	2/7/2024 7:51:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/9/2024 5:29:32 PM
Surr: BFB	102	15-244		%Rec	1	2/9/2024 5:29:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/9/2024 5:29:32 PM
Toluene	ND	0.048		mg/Kg	1	2/9/2024 5:29:32 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/9/2024 5:29:32 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/9/2024 5:29:32 PM
Surr: 4-Bromofluorobenzene	88.4	39.1-146		%Rec	1	2/9/2024 5:29:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 2:23:16 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP72
Project: Keel B INJ
Collection Date: 1/30/2024 8:40:00 AM
Lab ID: 2402163-072
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	2/7/2024 8:02:59 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	2/7/2024 8:02:59 PM
Surr: DNOP	86.7	61.2-134		%Rec	1	2/7/2024 8:02:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 5:53:13 PM
Surr: BFB	99.9	15-244		%Rec	1	2/9/2024 5:53:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 5:53:13 PM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 5:53:13 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 5:53:13 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/9/2024 5:53:13 PM
Surr: 4-Bromofluorobenzene	86.5	39.1-146		%Rec	1	2/9/2024 5:53:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	2/8/2024 2:38:26 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP73
Project: Keel B INJ
Collection Date: 1/30/2024 8:50:00 AM
Lab ID: 2402163-073
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/7/2024 8:14:54 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 8:14:54 PM
Surr: DNOP	84.6	61.2-134		%Rec	1	2/7/2024 8:14:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 6:16:51 PM
Surr: BFB	100	15-244		%Rec	1	2/9/2024 6:16:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 6:16:51 PM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 6:16:51 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 6:16:51 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/9/2024 6:16:51 PM
Surr: 4-Bromofluorobenzene	86.3	39.1-146		%Rec	1	2/9/2024 6:16:51 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 3:23:52 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP74
Project: Keel B INJ
Collection Date: 1/30/2024 9:00:00 AM
Lab ID: 2402163-074
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	2/7/2024 8:26:50 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	2/7/2024 8:26:50 PM
Surr: DNOP	86.9	61.2-134		%Rec	1	2/7/2024 8:26:50 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 6:40:32 PM
Surr: BFB	101	15-244		%Rec	1	2/9/2024 6:40:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 6:40:32 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 6:40:32 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 6:40:32 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/9/2024 6:40:32 PM
Surr: 4-Bromofluorobenzene	88.7	39.1-146		%Rec	1	2/9/2024 6:40:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 3:39:01 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP75
Project: Keel B INJ
Collection Date: 1/30/2024 9:10:00 AM
Lab ID: 2402163-075
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/7/2024 8:38:43 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 8:38:43 PM
Surr: DNOP	78.4	61.2-134		%Rec	1	2/7/2024 8:38:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/9/2024 7:04:12 PM
Surr: BFB	97.8	15-244		%Rec	1	2/9/2024 7:04:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/9/2024 7:04:12 PM
Toluene	ND	0.048		mg/Kg	1	2/9/2024 7:04:12 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/9/2024 7:04:12 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/9/2024 7:04:12 PM
Surr: 4-Bromofluorobenzene	85.8	39.1-146		%Rec	1	2/9/2024 7:04:12 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 3:54:10 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP76
Project: Keel B INJ
Collection Date: 1/30/2024 9:20:00 AM
Lab ID: 2402163-076
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/7/2024 8:50:37 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 8:50:37 PM
Surr: DNOP	76.4	61.2-134		%Rec	1	2/7/2024 8:50:37 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/9/2024 7:27:47 PM
Surr: BFB	95.2	15-244		%Rec	1	2/9/2024 7:27:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/9/2024 7:27:47 PM
Toluene	ND	0.048		mg/Kg	1	2/9/2024 7:27:47 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/9/2024 7:27:47 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/9/2024 7:27:47 PM
Surr: 4-Bromofluorobenzene	84.0	39.1-146		%Rec	1	2/9/2024 7:27:47 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 4:09:20 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP77
Project: Keel B INJ
Collection Date: 1/30/2024 9:30:00 AM
Lab ID: 2402163-077
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/7/2024 9:02:33 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/7/2024 9:02:33 PM
Surr: DNOP	78.4	61.2-134		%Rec	1	2/7/2024 9:02:33 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 7:51:19 PM
Surr: BFB	97.8	15-244		%Rec	1	2/9/2024 7:51:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 7:51:19 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 7:51:19 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 7:51:19 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/9/2024 7:51:19 PM
Surr: 4-Bromofluorobenzene	86.3	39.1-146		%Rec	1	2/9/2024 7:51:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 4:24:30 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

CLIENT: LH Operating, LLC
Client Sample ID: SP78
Project: Keel B INJ
Collection Date: 1/30/2024 9:40:00 AM
Lab ID: 2402163-078
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/7/2024 9:14:21 PM
Motor Oil Range Organics (MRO)	59	50		mg/Kg	1	2/7/2024 9:14:21 PM
Surr: DNOP	79.5	61.2-134		%Rec	1	2/7/2024 9:14:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 8:14:49 PM
Surr: BFB	95.7	15-244		%Rec	1	2/9/2024 8:14:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/9/2024 8:14:49 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 8:14:49 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 8:14:49 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/9/2024 8:14:49 PM
Surr: 4-Bromofluorobenzene	83.7	39.1-146		%Rec	1	2/9/2024 8:14:49 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 4:39:39 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP79
Project: Keel B INJ
Collection Date: 1/30/2024 9:50:00 AM
Lab ID: 2402163-079
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/7/2024 9:26:10 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/7/2024 9:26:10 PM
Surr: DNOP	81.9	61.2-134		%Rec	1	2/7/2024 9:26:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2024 8:38:28 PM
Surr: BFB	97.9	15-244		%Rec	1	2/9/2024 8:38:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/9/2024 8:38:28 PM
Toluene	ND	0.050		mg/Kg	1	2/9/2024 8:38:28 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/9/2024 8:38:28 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/9/2024 8:38:28 PM
Surr: 4-Bromofluorobenzene	86.1	39.1-146		%Rec	1	2/9/2024 8:38:28 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 4:54:50 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP80
Project: Keel B INJ
Collection Date: 1/30/2024 10:00:00 AM
Lab ID: 2402163-080
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/7/2024 9:37:56 PM
Motor Oil Range Organics (MRO)	49	46		mg/Kg	1	2/7/2024 9:37:56 PM
Surr: DNOP	81.6	61.2-134		%Rec	1	2/7/2024 9:37:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2024 9:01:58 PM
Surr: BFB	94.8	15-244		%Rec	1	2/9/2024 9:01:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/9/2024 9:01:58 PM
Toluene	ND	0.049		mg/Kg	1	2/9/2024 9:01:58 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/9/2024 9:01:58 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/9/2024 9:01:58 PM
Surr: 4-Bromofluorobenzene	84.0	39.1-146		%Rec	1	2/9/2024 9:01:58 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	2/8/2024 5:09:59 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402163**
Date Reported: **2/19/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP81
Project: Keel B INJ
Collection Date: 1/30/2024 10:10:00 AM
Lab ID: 2402163-081
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/5/2024 11:19:42 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/5/2024 11:19:42 PM
Surr: DNOP	80.6	61.2-134		%Rec	1	2/5/2024 11:19:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/6/2024 6:53:00 PM
Surr: BFB	106	15-244		%Rec	1	2/6/2024 6:53:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	2/6/2024 6:53:00 PM
Toluene	ND	0.047		mg/Kg	1	2/6/2024 6:53:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/6/2024 6:53:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/6/2024 6:53:00 PM
Surr: 4-Bromofluorobenzene	93.3	39.1-146		%Rec	1	2/6/2024 6:53:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 9:13:01 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **MB-80308** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **80308** RunNo: **102947**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3804731** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-80308** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **80308** RunNo: **102947**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3804732** 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			

Sample ID: **MB-80310** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **80310** RunNo: **102955**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3805145** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-80310** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **80310** RunNo: **102955**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3805146** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Sample ID: **MB-80337** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **80337** RunNo: **102978**
Prep Date: **2/8/2024** Analysis Date: **2/8/2024** SeqNo: **3806005** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-80337** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **80337** RunNo: **102978**
Prep Date: **2/8/2024** Analysis Date: **2/8/2024** SeqNo: **3806006** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **MB-80338** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **80338** RunNo: **102985**
Prep Date: **2/8/2024** Analysis Date: **2/8/2024** SeqNo: **3806410** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-80338** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **80338** RunNo: **102985**
Prep Date: **2/8/2024** Analysis Date: **2/8/2024** SeqNo: **3806412** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.7	90	110			

Sample ID: **MB-80358** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **80358** RunNo: **103010**
Prep Date: **2/9/2024** Analysis Date: **2/9/2024** SeqNo: **3807709** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-80358** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **80358** RunNo: **103010**
Prep Date: **2/9/2024** Analysis Date: **2/9/2024** SeqNo: **3807710** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **MB-80263** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **80263** RunNo: **102868**
Prep Date: **2/5/2024** Analysis Date: **2/5/2024** SeqNo: **3801375** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.9	61.2	134			

Sample ID: **LCS-80263** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **80263** RunNo: **102868**
Prep Date: **2/5/2024** Analysis Date: **2/5/2024** SeqNo: **3801376** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.3	59.7	135			
Surr: DNOP	4.4		5.000		88.0	61.2	134			

Sample ID: **LCS-80279** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **80279** RunNo: **102906**
Prep Date: **2/6/2024** Analysis Date: **2/6/2024** SeqNo: **3802511** 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	96.9	59.7	135			
Surr: DNOP	4.6		5.000		92.2	61.2	134			

Sample ID: **MB-80279** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **80279** RunNo: **102906**
Prep Date: **2/6/2024** Analysis Date: **2/6/2024** SeqNo: **3802517** 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	9.0		10.00		89.8	61.2	134			

Sample ID: **2402163-020AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP20** Batch ID: **80279** RunNo: **102906**
Prep Date: **2/6/2024** Analysis Date: **2/6/2024** SeqNo: **3802544** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.8	48.78	0	74.6	43.7	136			
Surr: DNOP	4.1		4.878		84.9	61.2	134			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **2402163-020AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP20** Batch ID: **80279** RunNo: **102906**
Prep Date: **2/6/2024** Analysis Date: **2/6/2024** SeqNo: **3802545** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.8	49.07	0	80.6	43.7	136	8.34	31.3	
Surr: DNOP	3.9		4.907		78.5	61.2	134	0	0	

Sample ID: **MB-80280** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **80280** RunNo: **102906**
Prep Date: **2/6/2024** Analysis Date: **2/6/2024** SeqNo: **3802547** 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	7.7		10.00		76.6	61.2	134			

Sample ID: **LCS-80280** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **80280** RunNo: **102906**
Prep Date: **2/6/2024** Analysis Date: **2/6/2024** SeqNo: **3802548** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.1	59.7	135			
Surr: DNOP	3.9		5.000		78.8	61.2	134			

Sample ID: **2402163-040AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP40** Batch ID: **80280** RunNo: **102906**
Prep Date: **2/6/2024** Analysis Date: **2/7/2024** SeqNo: **3802570** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.3	46.69	0	76.1	43.7	136			
Surr: DNOP	3.8		4.669		81.6	61.2	134			

Sample ID: **2402163-040AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP40** Batch ID: **80280** RunNo: **102906**
Prep Date: **2/6/2024** Analysis Date: **2/7/2024** SeqNo: **3802571** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	8.8	44.01	0	79.1	43.7	136	1.98	31.3	
Surr: DNOP	3.8		4.401		86.9	61.2	134	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **MB-80305** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **80305** RunNo: **102924**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3803680** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		86.4	61.2	134			

Sample ID: **LCS-80305** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **80305** RunNo: **102924**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3803681** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.1	59.7	135			
Surr: DNOP	4.3		5.000		85.6	61.2	134			

Sample ID: **2402163-041AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP41** Batch ID: **80305** RunNo: **102924**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3803683** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.6	47.80	0	79.8	43.7	136			
Surr: DNOP	4.2		4.780		88.3	61.2	134			

Sample ID: **2402163-041AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP41** Batch ID: **80305** RunNo: **102924**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3803684** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.4	47.21	0	89.5	43.7	136	10.3	31.3	
Surr: DNOP	4.1		4.721		85.9	61.2	134	0	0	

Sample ID: **MB-80306** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **80306** RunNo: **102924**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3804374** 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	7.8		10.00		77.6	61.2	134			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **LCS-80306** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **80306** RunNo: **102924**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3804376** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	77.6	59.7	135			
Surr: DNOP	3.8		5.000		75.6	61.2	134			

Sample ID: **2402163-061AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP61** Batch ID: **80306** RunNo: **102924**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3804379** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	9.4	47.21	0	78.3	43.7	136			
Surr: DNOP	3.7		4.721		78.0	61.2	134			

Sample ID: **2402163-061AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP61** Batch ID: **80306** RunNo: **102924**
Prep Date: **2/7/2024** Analysis Date: **2/7/2024** SeqNo: **3804380** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	9.2	45.83	0	76.4	43.7	136	5.44	31.3	
Surr: DNOP	3.8		4.583		82.0	61.2	134	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **lcs-80251** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80251** RunNo: **102909**
Prep Date: **2/5/2024** Analysis Date: **2/6/2024** SeqNo: **3802641** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	70	130			
Surr: BFB	2300		1000		225	15	244			

Sample ID: **mb-80251** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80251** RunNo: **102909**
Prep Date: **2/5/2024** Analysis Date: **2/6/2024** SeqNo: **3802642** 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		100	15	244			

Sample ID: **2402163-021ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP21** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3804475** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.93	0	101	70	130			
Surr: BFB	2100		997.0		208	15	244			

Sample ID: **2402163-021amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP21** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3804476** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.65	0	102	70	130	0.462	20	
Surr: BFB	2000		986.2		207	15	244	0	0	

Sample ID: **lcs-80273** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/7/2024** SeqNo: **3804516** 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	103	70	130			
Surr: BFB	2100		1000		210	15	244			

Sample ID: **mb-80273** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/7/2024** SeqNo: **3804517** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **mb-80273** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/7/2024** SeqNo: **3804517** 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	950		1000		95.0	15	244			

Sample ID: **lcs-80267** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80267** RunNo: **102949**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3804805** 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	97.5	70	130			
Surr: BFB	2100		1000		215	15	244			

Sample ID: **mb-80267** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80267** RunNo: **102949**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3804806** 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		105	15	244			

Sample ID: **2402163-001ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP1** Batch ID: **80267** RunNo: **102949**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3804808** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.70	0	97.1	70	130			
Surr: BFB	2100		947.9		219	15	244			

Sample ID: **2402163-001amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP1** Batch ID: **80267** RunNo: **102949**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3804809** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	23.88	0	94.4	70	130	2.04	20	
Surr: BFB	2100		955.1		219	15	244	0	0	

Sample ID: **lcs-80278** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805767** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **lcs-80278** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805767** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	2100		1000		211	15	244			

Sample ID: **mb-80278** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805768** 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	15	244			

Sample ID: **2402163-041ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP41** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805781** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	24.98	0	105	70	130			
Surr: BFB	2200		999.0		224	15	244			

Sample ID: **2402163-041amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP41** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805782** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.70	0	105	70	130	1.51	20	
Surr: BFB	2100		988.1		216	15	244	0	0	

Sample ID: **lcs-80286** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807562** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	2100		1000		215	15	244			

Sample ID: **lcs-80341** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80341** RunNo: **102999**
Prep Date: **2/8/2024** Analysis Date: **2/9/2024** SeqNo: **3807563** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **lcs-80341** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80341** RunNo: **102999**
Prep Date: **2/8/2024** Analysis Date: **2/9/2024** SeqNo: **3807563** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2100		1000		206	15	244			

Sample ID: **mb-80286** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807564** 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		96.3	15	244			

Sample ID: **mb-80341** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80341** RunNo: **102999**
Prep Date: **2/8/2024** Analysis Date: **2/9/2024** SeqNo: **3807565** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		95.0	15	244			

Sample ID: **2402163-061ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP61** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807567** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.93	0	101	70	130			
Surr: BFB	2100		997.0		214	15	244			

Sample ID: **2402163-061amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP61** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807568** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.83	0	102	70	130	0.585	20	
Surr: BFB	2100		993.0		210	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **lcs-80251** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **80251** RunNo: **102909**
Prep Date: **2/5/2024** Analysis Date: **2/6/2024** SeqNo: **3803001** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.4	70	130			
Toluene	0.89	0.050	1.000	0	89.4	70	130			
Ethylbenzene	0.91	0.050	1.000	0	90.7	70	130			
Xylenes, Total	2.7	0.10	3.000	0	91.1	70	130			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	39.1	146			

Sample ID: **mb-80251** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80251** RunNo: **102909**
Prep Date: **2/5/2024** Analysis Date: **2/6/2024** SeqNo: **3803002** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.1	39.1	146			

Sample ID: **2402163-022ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP22** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3804501** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	0.9980	0	89.2	70	130			
Toluene	0.91	0.050	0.9980	0	91.7	70	130			
Ethylbenzene	0.94	0.050	0.9980	0	93.8	70	130			
Xylenes, Total	2.8	0.10	2.994	0	94.2	70	130			
Surr: 4-Bromofluorobenzene	0.84		0.9980		84.2	39.1	146			

Sample ID: **2402163-022amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP22** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3804502** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	0.9862	0	92.5	70	130	2.44	20	
Toluene	0.94	0.049	0.9862	0	95.2	70	130	2.53	20	
Ethylbenzene	0.95	0.049	0.9862	0	95.9	70	130	1.04	20	
Xylenes, Total	2.8	0.099	2.959	0	95.6	70	130	0.215	20	
Surr: 4-Bromofluorobenzene	0.84		0.9862		85.3	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **LCS-80273** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/7/2024** SeqNo: **3804518** 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	85.6	70	130			
Toluene	0.86	0.050	1.000	0	85.7	70	130			
Ethylbenzene	0.87	0.050	1.000	0	86.8	70	130			
Xylenes, Total	2.6	0.10	3.000	0	87.6	70	130			
Surr: 4-Bromofluorobenzene	0.87		1.000		87.2	39.1	146			

Sample ID: **mb-80273** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80273** RunNo: **102936**
Prep Date: **2/6/2024** Analysis Date: **2/7/2024** SeqNo: **3804519** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.84		1.000		84.0	39.1	146			

Sample ID: **lcs-80267** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **80267** RunNo: **102949**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3804872** 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	92.2	70	130			
Toluene	0.93	0.050	1.000	0	92.9	70	130			
Ethylbenzene	0.95	0.050	1.000	0	94.7	70	130			
Xylenes, Total	2.9	0.10	3.000	0	95.1	70	130			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.4	39.1	146			

Sample ID: **mb-80267** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80267** RunNo: **102949**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3804873** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **2402163-002ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP2** Batch ID: **80267** RunNo: **102949**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3804876** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.023	0.9390	0	93.4	70	130			
Toluene	0.89	0.047	0.9390	0	94.5	70	130			
Ethylbenzene	0.91	0.047	0.9390	0	97.4	70	130			
Xylenes, Total	2.8	0.094	2.817	0	97.8	70	130			
Surr: 4-Bromofluorobenzene	0.93		0.9390		99.3	39.1	146			

Sample ID: **2402163-002amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP2** Batch ID: **80267** RunNo: **102949**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3804877** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.024	0.9452	0	92.4	70	130	0.377	20	
Toluene	0.89	0.047	0.9452	0	94.2	70	130	0.399	20	
Ethylbenzene	0.91	0.047	0.9452	0	96.3	70	130	0.476	20	
Xylenes, Total	2.7	0.095	2.836	0	96.7	70	130	0.497	20	
Surr: 4-Bromofluorobenzene	0.93		0.9452		98.7	39.1	146	0	0	

Sample ID: **LCS-80278** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805807** 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	85.6	70	130			
Toluene	0.87	0.050	1.000	0	86.9	70	130			
Ethylbenzene	0.88	0.050	1.000	0	88.0	70	130			
Xylenes, Total	2.7	0.10	3.000	0	88.9	70	130			
Surr: 4-Bromofluorobenzene	0.85		1.000		84.7	39.1	146			

Sample ID: **mb-80278** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805808** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.83		1.000		83.3	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **2402163-042ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP42** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	0.9891	0	85.7	70	130			
Toluene	0.89	0.049	0.9891	0	89.7	70	130			
Ethylbenzene	0.91	0.049	0.9891	0	91.7	70	130			
Xylenes, Total	2.7	0.099	2.967	0	92.2	70	130			
Surr: 4-Bromofluorobenzene	0.87		0.9891		88.3	39.1	146			

Sample ID: **2402163-042amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP42** Batch ID: **80278** RunNo: **102975**
Prep Date: **2/6/2024** Analysis Date: **2/8/2024** SeqNo: **3805823** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	0.9990	0	85.0	70	130	0.186	20	
Toluene	0.89	0.050	0.9990	0	88.6	70	130	0.206	20	
Ethylbenzene	0.91	0.050	0.9990	0	91.1	70	130	0.381	20	
Xylenes, Total	2.8	0.10	2.997	0	92.4	70	130	1.28	20	
Surr: 4-Bromofluorobenzene	0.88		0.9990		87.8	39.1	146	0	0	

Sample ID: **LCS-80286** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807615** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	83.4	70	130			
Toluene	0.85	0.050	1.000	0	85.4	70	130			
Ethylbenzene	0.86	0.050	1.000	0	86.0	70	130			
Xylenes, Total	2.6	0.10	3.000	0	86.2	70	130			
Surr: 4-Bromofluorobenzene	0.87		1.000		86.5	39.1	146			

Sample ID: **LCS-80341** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **80341** RunNo: **102999**
Prep Date: **2/8/2024** Analysis Date: **2/9/2024** SeqNo: **3807616** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.86		1.000		86.4	39.1	146			

Sample ID: **mb-80286** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807617** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402163**
19-Feb-24

Client: LH Operating, LLC
Project: Keel B INJ

Sample ID: **mb-80286** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807617** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		85.2	39.1	146			

Sample ID: **mb-80341** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80341** RunNo: **102999**
Prep Date: **2/8/2024** Analysis Date: **2/9/2024** SeqNo: **3807618** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.84		1.000		83.7	39.1	146			

Sample ID: **2402163-062ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP62** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807621** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	0.9940	0	83.5	70	130			
Toluene	0.86	0.050	0.9940	0	86.4	70	130			
Ethylbenzene	0.88	0.050	0.9940	0	88.3	70	130			
Xylenes, Total	2.6	0.099	2.982	0	88.2	70	130			
Surr: 4-Bromofluorobenzene	0.85		0.9940		85.9	39.1	146			

Sample ID: **2402163-062amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP62** Batch ID: **80286** RunNo: **102999**
Prep Date: **2/6/2024** Analysis Date: **2/9/2024** SeqNo: **3807622** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	0.9921	0	86.0	70	130	2.83	20	
Toluene	0.89	0.050	0.9921	0	89.3	70	130	3.19	20	
Ethylbenzene	0.89	0.050	0.9921	0	90.0	70	130	1.73	20	
Xylenes, Total	2.7	0.099	2.976	0	90.0	70	130	1.81	20	
Surr: 4-Bromofluorobenzene	0.86		0.9921		87.0	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **LH Operating, LLC** Work Order Number: **2402163** RcptNo: **1**

Received By: **Tracy Casarrubias** **2/3/2024 9:40:00 AM**

Completed By: **Tracy Casarrubias** **2/3/2024 10:21:26 AM**

Reviewed By: 2/5/24

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: TMc 2/3/24

Special Handling (if applicable)

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

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

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.6	Good	Yes	Morty		
2	1.8	Good	Yes	Morty		

Received by OCD: 5/22/2024 3:00:59 PM

Released to Imaging: 5/29/2024 1:22:42 PM

Chain-of-Custody Record

Client: L H Operating LLC

Mailing Address: 3730 Kirby Suite 1200
Houston TX 77098

Phone #: 575-499 5306

email or Fax#: Arrowlogistics NM@Gmail.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☒ Rush 5 Day
5 days

Project Name: Keel B INJ

Project #:

Project Manager: M Burton

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 2

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

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

Analysis Request

Date	Time	Matrix	Sample Name (Sidewalls)	Container Type and #	Preservative Type	HEAL No. 2402163	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-29-24	700	Soil	SP 1	Jar	Ice	001	X	X								
	710		SP2			002										
	720		SP3			003										
	730		SP4			004										
	740		SP5			005										
	750		SP6			006										
	800		SP7			007										
	810		SP8			008										
	820		SP9			009										
	830		SP10			010										
	840		SP11			011										
	850		SP12			012										

Date	Time	Relinquished by	Received by	Via	Date	Time
2/2/24	1030	M Burton	[signature]		2/2/24	1030
2/2/24	1900	[signature]	[signature]	Courier	2/3/24	9:40

Remarks:
CC-Mike@LHoperating.com
CC-Strataresources@Outlook.com
Tola of TPH

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.

Chain-of-Custody Record

Client: LH Operating LLC

Mailing Address: 3730 Kirby Suite 1200 Houston TX 77098

Phone #: 575-499-5306

email or Fax#: Arrowlogistics NM@Gmail.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Days

☒ Standard ☒ Rush 5 Day

Project Name: Keel B inj

Project #: M Burton

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 2

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name (sidewalls)	Container Type and #	Preservative Type	HEAL No. 2402163	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-29-24	900	Soil	SP 13	Jar	ICE	013	X	X								
	910		SP 14			014										
	920		SP 15			015										
	930		SP 16			016										
	940		SP 17			017										
	950		SP 18			018										
	1000		SP 19			019										
	1010		SP 20			020										
	1020		SP 21			021										
	1030		SP 22			022										
	1040		SP 23			023										
	1050		SP 24			024										

Date	Time	Relinquished by	Received by	Via	Date	Time
		M Burton	[illegible]		2/2/24	1030
2/2/24	1900	[illegible]		courier	2/3/24	9:40

Remarks:

CC-Mike@LHoperating.com

CC-Strataresources@Outlook.com

Total of TPH

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.

Chain-of-Custody Record

Client: LH Operating LLC

Mailing Address: LH Operating
3730 Kirby Suite 1200 Houston TXW

Phone #: 575-499-5306

email or Fax#: arrowlogistics nm@gmail.com

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

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

Turn-Around Time:
5 Day
☑ Standard ☒ Rush 5 Day

Project Name: Keel B 1 N J

Project #:

Project Manager: M Burton

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 2

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name (sidewalls)	Container Type and #	Preservative Type	HEAL No. 2402163	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-29-24	1100	Soil	SP 25	Jar	ICE	025	X	X					X			
	1110		SP 26			026										
	1120		SP 27			027										
	1130		SP 28			028										
	1140		SP 29			029										
	1150		SP 30			030										
	1200		SP 31			031										
	1210		SP 32			032										
	1220		SP 33			033										
	1230		SP 34			034										
	1240		SP 35			035										
	1250		SP 36			036										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
		M Burton			2/2/24	1030
2/2/24	1900			courier	2/3/24	9:40

Remarks:
CC- mike@LHOperating.com
CC-Stratoresources@outlook.com
total TPH

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.

Chain-of-Custody Record

Client: LHOperating LLC
3730 Kirby Suite 1200
Mailing Address: Huston TX 77

Phone #: 575-499-5306
email or Fax#: arrowlocistics@gmail.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
5 Day
☒ Standard ☒ Rush
Project Name:
Project #: Keel B INJ
Project Manager: M Burton
Sampler:
On Ice: ☒ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): See Checklist (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name (sidewalls)	Container Type and #	Preservative Type	HEAL No. 2402163	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/29/24	100	Soil	SP 37	Jar	ICE	037	X	X								
	110		SP 38			038										
	120		SP 39			039										
	130		SP 40			040										
	140		SP 41			041										
	150		SP 42			042										
	200		SP 43			043										
	210		SP 44			044										
	220		SP 45			045										
	230		SP 46			046										
	240		SP 47			047										
	250		SP 48			048										

Date	Time	Relinquished by	Received by	Via	Date	Time
2/2/24	1030	M Burton	[signature]		2/2/24	1030
2/2/24	1900	[signature]	[signature]	courier	2/3/24	9:40

Remarks:
CC-Mike@LHOperating.com
CC-Strataresources@Outlook.com
Total TPH

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.

Chain-of-Custody Record

Client: LH Operating LLC

Mailing Address: 3730 Kirby suite 1200 Huston TX 77098

Phone #: 575-499-5306

email or Fax#: arrowlogistics@gmail.com

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

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

Turn-Around Time: 5 Day
☑ Standard ☒ Rush

Project Name: Keel Bind

Project #:

Project Manager: M Burton

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 2

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

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

Analysis Request

Date	Time	Matrix	Sample Name (sidewalls)	Container Type and #	Preservative Type	HEAL No. 2402163	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1-29-24	300	Soil	SP 49	Jar	ICE	049	X	X								
	310		SP 50			050										
	320		SP 51			051										
	330		SP 52			052										
	340		SP 53			053										
	400		SP 54			054										
	410		SP 55			055										
	420		SP 56			056										
	430		SP 57			057										
	440		SP 58			058										
	445		SP 59			059										
	450		SP 60			060										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					2/2/24	1030
Date:	Time:	Relinquished by:	Received by:	Via: rush	Date	Time
		M Burton			2/3/24	9:40

Remarks:
CC- Mike@LHoperating.com
CC- Strataresources@outlook.com
total-TPH

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Chain-of-Custody Record

Client: LH Operating LLC

Mailing Address: 3730 Kirby Suite 1200 Huston TX 77098

Phone #: 575-499-5306

email or Fax#: arrowlogistics@gmail.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5Day

☒ Standard ☒ Rush

Project Name: Keel B inj

Project #:

Project Manager: M Burton

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 2

Cooler Temp (Including CF): See Checklist (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name (Sidewalls)	Container Type and #	Preservative Type	HEAL No. 2402163	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/28/24	500	Soil	SP 61	Jar	ICE	061	X	X								
1/30/24	700		SP 62			062										
	710		SP 63			063										
	720		SP 64			064										
	730		SP 65			065										
	740		SP 66			066										
	750		SP 67			067										
	800		SP 68			068										
	810		SP 69			069										
	820		SP 70			070										
	830		SP 71			071										
	840		SP 72			072										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
		M Burton			2/2/24	1030
Date: 2/2/24	Time: 1900	Relinquished by:	Received by:	Via: courier	Date 2/3/24	Time 9:40

Remarks: Total TPH

CC-mike@LHoperating.com

CC-Strataresources@Outlook.com

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

Chain-of-Custody Record

Client: LH Operating LLC

Mailing Address: 3730 Kirby Suite 1200
Huston TX 77098

Phone #: 575-499-5306

email or Fax#: arrowlogistics.LLC

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
5 Day
☑ Standard ☒ Rush _____

Project Name: Keel Bind

Project #:

Project Manager: MBurton

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 2

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name (sidewalls)	Container Type and #	Preservative Type	HEAL No. 2402163	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1302 24	850	Soil	SP 73	Jar	Ice	073	X	X								
	900		SP 74			074										
	910		SP 75			075										
	920		SP 76			076										
	930		SP 77			077										
	940		SP 78			078										
	950		SP 79			079										
	1000		SP 80			080										
	1010		SP 81			081										

Date	Time	Relinquished by	Received by	Via	Date	Time
		MBurton			2/2/24	1030
2/2/24	1900			Courier	2/3/24	9:40

Remarks:
CC Mike@LHOperations.com
CC Strataresources@Outlook.com
Total TPH

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.

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 15, 2024

Mike Burton
LH Operating, LLC
4809 Cole Ave, Ste 106
Dallas, TX 75205
TEL: (575) 499-5306
FAX:

RE: Keel Bind OrderNo.: 2402164

Dear Mike Burton:

Eurofins Environment Testing South Central, LLC received 16 sample(s) on 2/3/2024 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 do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-001 **Matrix:** SOIL

Client Sample ID: SP1 '2'
Collection Date: 1/30/2024 10:20:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/5/2024 7:40:01 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/5/2024 7:40:01 PM
Surr: DNOP	99.0	61.2-134		%Rec	1	2/5/2024 7:40:01 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/7/2024 1:41:50 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 1:41:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 1:41:50 PM
Toluene	ND	0.048		mg/Kg	1	2/7/2024 1:41:50 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/7/2024 1:41:50 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/7/2024 1:41:50 PM
Surr: 4-Bromofluorobenzene	88.9	39.1-146		%Rec	1	2/7/2024 1:41:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/6/2024 6:56:06 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP2 '2'
Project: Keel Bind
Collection Date: 1/30/2024 10:30:00 AM
Lab ID: 2402164-002
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/5/2024 8:03:26 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/5/2024 8:03:26 PM
Surr: DNOP	91.9	61.2-134		%Rec	1	2/5/2024 8:03:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/7/2024 2:05:40 PM
Surr: BFB	103	15-244		%Rec	1	2/7/2024 2:05:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 2:05:40 PM
Toluene	ND	0.046		mg/Kg	1	2/7/2024 2:05:40 PM
Ethylbenzene	ND	0.046		mg/Kg	1	2/7/2024 2:05:40 PM
Xylenes, Total	ND	0.092		mg/Kg	1	2/7/2024 2:05:40 PM
Surr: 4-Bromofluorobenzene	87.7	39.1-146		%Rec	1	2/7/2024 2:05:40 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	59		mg/Kg	20	2/6/2024 7:11:15 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP3 '2'
Project: Keel Bind
Collection Date: 1/30/2024 10:40:00 AM
Lab ID: 2402164-003
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/5/2024 8:26:50 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/5/2024 8:26:50 PM
Surr: DNOP	91.6	61.2-134		%Rec	1	2/5/2024 8:26:50 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 2:29:30 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 2:29:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 2:29:30 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 2:29:30 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 2:29:30 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/7/2024 2:29:30 PM
Surr: 4-Bromofluorobenzene	89.8	39.1-146		%Rec	1	2/7/2024 2:29:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	59		mg/Kg	20	2/6/2024 7:26:25 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP4 '2'
Project: Keel Bind
Collection Date: 1/30/2024 10:50:00 AM
Lab ID: 2402164-004
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/5/2024 8:50:14 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/5/2024 8:50:14 PM
Surr: DNOP	98.4	61.2-134		%Rec	1	2/5/2024 8:50:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 2:53:22 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 2:53:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 2:53:22 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 2:53:22 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 2:53:22 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/7/2024 2:53:22 PM
Surr: 4-Bromofluorobenzene	90.1	39.1-146		%Rec	1	2/7/2024 2:53:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/6/2024 7:41:34 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-005 **Matrix:** SOIL

Client Sample ID: SP5 '2'
Collection Date: 1/30/2024 11:00:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/5/2024 9:36:50 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/5/2024 9:36:50 PM
Surr: DNOP	97.4	61.2-134		%Rec	1	2/5/2024 9:36:50 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/7/2024 3:17:12 PM
Surr: BFB	107	15-244		%Rec	1	2/7/2024 3:17:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 3:17:12 PM
Toluene	ND	0.046		mg/Kg	1	2/7/2024 3:17:12 PM
Ethylbenzene	ND	0.046		mg/Kg	1	2/7/2024 3:17:12 PM
Xylenes, Total	ND	0.093		mg/Kg	1	2/7/2024 3:17:12 PM
Surr: 4-Bromofluorobenzene	92.9	39.1-146		%Rec	1	2/7/2024 3:17:12 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/6/2024 7:56:44 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-006 **Matrix:** SOIL

Client Sample ID: SP6 '2'
Collection Date: 1/30/2024 11:10:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/5/2024 10:00:07 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/5/2024 10:00:07 PM
Surr: DNOP	97.3	61.2-134		%Rec	1	2/5/2024 10:00:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 3:41:00 PM
Surr: BFB	105	15-244		%Rec	1	2/7/2024 3:41:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 3:41:00 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 3:41:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 3:41:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/7/2024 3:41:00 PM
Surr: 4-Bromofluorobenzene	90.0	39.1-146		%Rec	1	2/7/2024 3:41:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/6/2024 8:11:52 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-007 **Matrix:** SOIL

Client Sample ID: SP7'4'
Collection Date: 1/30/2024 11:20:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/5/2024 10:23:22 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/5/2024 10:23:22 PM
Surr: DNOP	97.4	61.2-134		%Rec	1	2/5/2024 10:23:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 4:28:43 PM
Surr: BFB	106	15-244		%Rec	1	2/7/2024 4:28:43 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 4:28:43 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 4:28:43 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 4:28:43 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/7/2024 4:28:43 PM
Surr: 4-Bromofluorobenzene	90.9	39.1-146		%Rec	1	2/7/2024 4:28:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/6/2024 8:27:01 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-008 **Matrix:** SOIL

Client Sample ID: SP8 '4'
Collection Date: 1/30/2024 11:30:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/5/2024 10:46:38 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/5/2024 10:46:38 PM
Surr: DNOP	91.5	61.2-134		%Rec	1	2/5/2024 10:46:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/7/2024 4:52:31 PM
Surr: BFB	105	15-244		%Rec	1	2/7/2024 4:52:31 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 4:52:31 PM
Toluene	ND	0.046		mg/Kg	1	2/7/2024 4:52:31 PM
Ethylbenzene	ND	0.046		mg/Kg	1	2/7/2024 4:52:31 PM
Xylenes, Total	ND	0.093		mg/Kg	1	2/7/2024 4:52:31 PM
Surr: 4-Bromofluorobenzene	89.9	39.1-146		%Rec	1	2/7/2024 4:52:31 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/6/2024 9:12:36 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP9 '4'
Project: Keel Bind
Collection Date: 1/30/2024 11:40:00 AM
Lab ID: 2402164-009
Matrix: SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/5/2024 11:09:52 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/5/2024 11:09:52 PM
Surr: DNOP	96.8	61.2-134		%Rec	1	2/5/2024 11:09:52 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 5:16:24 PM
Surr: BFB	105	15-244		%Rec	1	2/7/2024 5:16:24 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 5:16:24 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 5:16:24 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 5:16:24 PM
Xylenes, Total	ND	0.095		mg/Kg	1	2/7/2024 5:16:24 PM
Surr: 4-Bromofluorobenzene	90.3	39.1-146		%Rec	1	2/7/2024 5:16:24 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 10:07:17 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-010 **Matrix:** SOIL

Client Sample ID: SP10 '4'
Collection Date: 1/30/2024 11:50:00 AM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	2/5/2024 11:33:04 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/5/2024 11:33:04 PM
Surr: DNOP	98.7	61.2-134		%Rec	1	2/5/2024 11:33:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/7/2024 5:40:14 PM
Surr: BFB	103	15-244		%Rec	1	2/7/2024 5:40:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/7/2024 5:40:14 PM
Toluene	ND	0.049		mg/Kg	1	2/7/2024 5:40:14 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/7/2024 5:40:14 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/7/2024 5:40:14 PM
Surr: 4-Bromofluorobenzene	87.9	39.1-146		%Rec	1	2/7/2024 5:40:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 10:19:38 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-011 **Matrix:** SOIL

Client Sample ID: SP11 '4'
Collection Date: 1/30/2024 12:00:00 PM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/5/2024 11:56:15 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/5/2024 11:56:15 PM
Surr: DNOP	89.0	61.2-134		%Rec	1	2/5/2024 11:56:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 6:04:02 PM
Surr: BFB	104	15-244		%Rec	1	2/7/2024 6:04:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 6:04:02 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 6:04:02 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 6:04:02 PM
Xylenes, Total	ND	0.093		mg/Kg	1	2/7/2024 6:04:02 PM
Surr: 4-Bromofluorobenzene	88.3	39.1-146		%Rec	1	2/7/2024 6:04:02 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 10:31:58 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Client Sample ID: SP12 '4'
Project: Keel Bind
Collection Date: 1/30/2024 12:10:00 PM
Lab ID: 2402164-012 **Matrix:** SOIL
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/6/2024 12:19:23 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/6/2024 12:19:23 AM
Surr: DNOP	89.9	61.2-134		%Rec	1	2/6/2024 12:19:23 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 6:27:46 PM
Surr: BFB	100	15-244		%Rec	1	2/7/2024 6:27:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 6:27:46 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 6:27:46 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 6:27:46 PM
Xylenes, Total	ND	0.093		mg/Kg	1	2/7/2024 6:27:46 PM
Surr: 4-Bromofluorobenzene	86.7	39.1-146		%Rec	1	2/7/2024 6:27:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 10:44:19 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-013 **Matrix:** SOIL

Client Sample ID: SP13 '4'
Collection Date: 1/30/2024 12:20:00 PM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	2/6/2024 12:42:32 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/6/2024 12:42:32 AM
Surr: DNOP	94.5	61.2-134		%Rec	1	2/6/2024 12:42:32 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/7/2024 6:51:30 PM
Surr: BFB	102	15-244		%Rec	1	2/7/2024 6:51:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	2/7/2024 6:51:30 PM
Toluene	ND	0.047		mg/Kg	1	2/7/2024 6:51:30 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/7/2024 6:51:30 PM
Xylenes, Total	ND	0.095		mg/Kg	1	2/7/2024 6:51:30 PM
Surr: 4-Bromofluorobenzene	88.7	39.1-146		%Rec	1	2/7/2024 6:51:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 10:56:40 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-014 **Matrix:** SOIL

Client Sample ID: SP14 '4'
Collection Date: 1/30/2024 12:30:00 PM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/6/2024 1:05:40 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/6/2024 1:05:40 AM
Surr: DNOP	63.7	61.2-134		%Rec	1	2/6/2024 1:05:40 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/7/2024 7:15:11 PM
Surr: BFB	96.1	15-244		%Rec	1	2/7/2024 7:15:11 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/7/2024 7:15:11 PM
Toluene	ND	0.046		mg/Kg	1	2/7/2024 7:15:11 PM
Ethylbenzene	ND	0.046		mg/Kg	1	2/7/2024 7:15:11 PM
Xylenes, Total	ND	0.093		mg/Kg	1	2/7/2024 7:15:11 PM
Surr: 4-Bromofluorobenzene	85.3	39.1-146		%Rec	1	2/7/2024 7:15:11 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 11:09:00 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-015 **Matrix:** SOIL

Client Sample ID: SP15 '4'
Collection Date: 1/30/2024 12:40:00 PM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/8/2024 12:35:21 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/8/2024 12:35:21 PM
Surr: DNOP	118	61.2-134		%Rec	1	2/8/2024 12:35:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/11/2024 5:05:04 PM
Surr: BFB	95.5	15-244		%Rec	1	2/11/2024 5:05:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/11/2024 5:05:04 PM
Toluene	ND	0.050		mg/Kg	1	2/11/2024 5:05:04 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/11/2024 5:05:04 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/11/2024 5:05:04 PM
Surr: 4-Bromofluorobenzene	85.5	39.1-146		%Rec	1	2/11/2024 5:05:04 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 11:21:21 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402164**
Date Reported: **2/15/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LH Operating, LLC
Project: Keel Bind
Lab ID: 2402164-016 **Matrix:** SOIL

Client Sample ID: SP16 '4'
Collection Date: 1/30/2024 1:00:00 PM
Received Date: 2/3/2024 9:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JKU**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/8/2024 1:46:11 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/8/2024 1:46:11 PM
Surr: DNOP	83.4	61.2-134		%Rec	1	2/8/2024 1:46:11 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/11/2024 6:15:21 PM
Surr: BFB	98.8	15-244		%Rec	1	2/11/2024 6:15:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	2/11/2024 6:15:21 PM
Toluene	ND	0.050		mg/Kg	1	2/11/2024 6:15:21 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/11/2024 6:15:21 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/11/2024 6:15:21 PM
Surr: 4-Bromofluorobenzene	87.9	39.1-146		%Rec	1	2/11/2024 6:15:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	ND	60		mg/Kg	20	2/9/2024 11:58:24 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	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402164**
15-Feb-24

Client: LH Operating, LLC
Project: Keel Bind

Sample ID: **MB-80270** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **80270** RunNo: **102914**
Prep Date: **2/6/2024** Analysis Date: **2/6/2024** SeqNo: **3803181** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-80270** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **80270** RunNo: **102914**
Prep Date: **2/6/2024** Analysis Date: **2/6/2024** SeqNo: **3803182** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	90	110			

Sample ID: **MB-80358** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **80358** RunNo: **103010**
Prep Date: **2/9/2024** Analysis Date: **2/9/2024** SeqNo: **3807709** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-80358** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **80358** RunNo: **103010**
Prep Date: **2/9/2024** Analysis Date: **2/9/2024** SeqNo: **3807710** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402164**
15-Feb-24

Client: LH Operating, LLC
Project: Keel Bind

Sample ID: **MB-80265** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **80265** RunNo: **102881**
Prep Date: **2/5/2024** Analysis Date: **2/5/2024** SeqNo: **3801657** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	61.2	134			

Sample ID: **LCS-80265** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **80265** RunNo: **102881**
Prep Date: **2/5/2024** Analysis Date: **2/5/2024** SeqNo: **3801658** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	103	59.7	135			
Surr: DNOP	4.9		5.000		97.7	61.2	134			

Sample ID: **2402164-014AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP14 '4'** Batch ID: **80265** RunNo: **102881**
Prep Date: **2/5/2024** Analysis Date: **2/6/2024** SeqNo: **3801678** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.1	45.58	0	102	43.7	136			
Surr: DNOP	3.9		4.558		85.1	61.2	134			

Sample ID: **2402164-014AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP14 '4'** Batch ID: **80265** RunNo: **102881**
Prep Date: **2/5/2024** Analysis Date: **2/6/2024** SeqNo: **3801679** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.2	46.04	0	104	43.7	136	2.67	31.3	
Surr: DNOP	4.0		4.604		86.9	61.2	134	0	0	

Sample ID: **MB-80330** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **80330** RunNo: **102994**
Prep Date: **2/7/2024** Analysis Date: **2/8/2024** SeqNo: **3806975** 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	61.2	134			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402164**
15-Feb-24

Client: LH Operating, LLC
Project: Keel Bind

Sample ID: **LCS-80330** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **80330** RunNo: **102994**
Prep Date: **2/7/2024** Analysis Date: **2/8/2024** SeqNo: **3806976** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	10	50.00	0	123	59.7	135			
Surr: DNOP	5.3		5.000		105	61.2	134			

Sample ID: **2402164-015AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP15 '4'** Batch ID: **80330** RunNo: **102994**
Prep Date: **2/7/2024** Analysis Date: **2/8/2024** SeqNo: **3806978** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	9.6	48.03	0	117	43.7	136			
Surr: DNOP	5.0		4.803		104	61.2	134			

Sample ID: **2402164-015AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP15 '4'** Batch ID: **80330** RunNo: **102994**
Prep Date: **2/7/2024** Analysis Date: **2/8/2024** SeqNo: **3806979** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.6	47.89	0	102	43.7	136	14.5	31.3	
Surr: DNOP	4.2		4.789		87.3	61.2	134	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402164**
15-Feb-24

Client: LH Operating, LLC
Project: Keel Bind

Sample ID: **lcs-80257** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80257** RunNo: **102936**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3803969** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	70	130			
Surr: BFB	2200		1000		216	15	244			

Sample ID: **mb-80257** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80257** RunNo: **102936**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3803970** 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		107	15	244			

Sample ID: **lcs-80289** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **80289** RunNo: **103014**
Prep Date: **2/7/2024** Analysis Date: **2/11/2024** SeqNo: **3807952** 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	103	70	130			
Surr: BFB	2000		1000		203	15	244			

Sample ID: **mb-80289** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **80289** RunNo: **103014**
Prep Date: **2/7/2024** Analysis Date: **2/11/2024** SeqNo: **3807953** 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	980		1000		97.7	15	244			

Sample ID: **2402164-015ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP15 '4'** Batch ID: **80289** RunNo: **103014**
Prep Date: **2/7/2024** Analysis Date: **2/11/2024** SeqNo: **3807955** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.93	0	89.8	70	130			
Surr: BFB	2000		997.0		203	15	244			

Sample ID: **2402164-015amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP15 '4'** Batch ID: **80289** RunNo: **103014**
Prep Date: **2/7/2024** Analysis Date: **2/11/2024** SeqNo: **3807956** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402164**
15-Feb-24

Client: LH Operating, LLC
Project: Keel Bind

Sample ID: **2402164-015amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SP15 '4'** Batch ID: **80289** RunNo: **103014**
Prep Date: **2/7/2024** Analysis Date: **2/11/2024** SeqNo: **3807956** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	24.78	0	95.2	70	130	5.28	20	
Surr: BFB	2000		991.1		206	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402164**
15-Feb-24

Client: LH Operating, LLC
Project: Keel Bind

Sample ID: **LCS-80257** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **80257** RunNo: **102936**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3803972** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.0	70	130			
Toluene	0.88	0.050	1.000	0	88.3	70	130			
Ethylbenzene	0.90	0.050	1.000	0	89.8	70	130			
Xylenes, Total	2.7	0.10	3.000	0	90.7	70	130			
Surr: 4-Bromofluorobenzene	0.90		1.000		90.0	39.1	146			

Sample ID: **mb-80257** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80257** RunNo: **102936**
Prep Date: **2/5/2024** Analysis Date: **2/7/2024** SeqNo: **3803973** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.2	39.1	146			

Sample ID: **LCS-80289** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **80289** RunNo: **103014**
Prep Date: **2/7/2024** Analysis Date: **2/11/2024** SeqNo: **3807961** 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	86.1	70	130			
Toluene	0.87	0.050	1.000	0	87.0	70	130			
Ethylbenzene	0.88	0.050	1.000	0	87.7	70	130			
Xylenes, Total	2.6	0.10	3.000	0	87.9	70	130			
Surr: 4-Bromofluorobenzene	0.89		1.000		88.8	39.1	146			

Sample ID: **mb-80289** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **80289** RunNo: **103014**
Prep Date: **2/7/2024** Analysis Date: **2/11/2024** SeqNo: **3807962** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.87		1.000		87.0	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2402164**
15-Feb-24

Client: LH Operating, LLC
Project: Keel Bind

Sample ID: **2402164-016amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP16 '4'** Batch ID: **80289** RunNo: **103014**
Prep Date: **2/7/2024** Analysis Date: **2/11/2024** SeqNo: **3807966** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.025	0.9950	0	80.2	70	130	0.915	20	
Toluene	0.84	0.050	0.9950	0.01300	82.8	70	130	2.04	20	
Ethylbenzene	0.84	0.050	0.9950	0	84.9	70	130	0.449	20	
Xylenes, Total	2.5	0.10	2.985	0	84.8	70	130	0.978	20	
Surr: 4-Bromofluorobenzene	0.85		0.9950		85.2	39.1	146	0	0	

Sample ID: **2402164-016ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP16 '4'** Batch ID: **80289** RunNo: **103024**
Prep Date: **2/7/2024** Analysis Date: **2/12/2024** SeqNo: **3808591** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	0.9950	0	79.4	70	130			
Toluene	0.82	0.050	0.9950	0.01300	81.1	70	130			
Ethylbenzene	0.84	0.050	0.9950	0	84.5	70	130			
Xylenes, Total	2.6	0.10	2.985	0	85.6	70	130			
Surr: 4-Bromofluorobenzene	0.88		0.9950		88.7	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

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eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **LH Operating, LLC** Work Order Number: **2402164** RcptNo: **1**

Received By: **Tracy Casarrubias** **2/3/2024 9:40:00 AM**

Completed By: **Tracy Casarrubias** **2/3/2024 11:05:15 AM**

Reviewed By: 2/5/24

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: TMC 2/3/24

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:

Time and date of relinquish are missing on COC.

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

Monty 2/3/24

Received by OCD: 5/22/2024 3:00:59 PM

Released to Imaging: 5/29/2024 1:22:42 PM

Chain-of-Custody Record

Client: LH Operating LLC

Mailing Address: 3730 Kirby Suite 1200 Huston TX 77098

Phone #: 575-499-5306

email or Fax#: arrowlogistics nm@gmail.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day

☑ Standard ☑ Rush

Project Name: Keel Bind

Project #:

Project Manager: M Burton

Sampler:

On Ice: ☒ Yes ☐ No morty

# of Coolers: 1

Cooler Temp (including CF): 1.8 + 0 = 1.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2402164	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/30/24	1020	Soil	SP 1 2'	jar	ICE	001	X	X								
	1030		2 2'			002										
	1040		3 2'			003										
	1050		4 2'			004										
	1100		5 2'			005										
	1110		6 2'			006										
	1120		7 4'			007										
	1130		8 4'			008										
	1140		9 4'			009										
	1150		10 4'			010										
	1200		11 4'			011										
	1210		12 4'			012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
		M Burton	[illegible]		2/2/24	1030
2/2/24	1900	[illegible]	[illegible]	courier	2/3/24	9:40

Remarks: total TPH

CC-Mike@LHOperating.com

CC-Strataresources@Outlook.com

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

Chain-of-Custody Record

Client: LH Operating LLC

Mailing Address: 3730 Kirby Suite 1200
Houston TX 77098

Phone #: 575-499-5306

email or Fax#: arrowlogistics nm@Gmail.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:
5 Day
☑ Standard ☐ Rush_____

Project Name:
Red B inj

Project #:

Project Manager:
M Burton

Sampler:

On Ice: ☒ Yes ☐ No morty

# of Coolers: 1

Cooler Temp(including CF): 1.8 + 0 = 1.8 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/30/24	1220	Soil	13 4'	Jar	ICE	013	X	X								
	1230		14 "4"			014										
	1240		15 "4"			015										
	100		16 "4"			016										

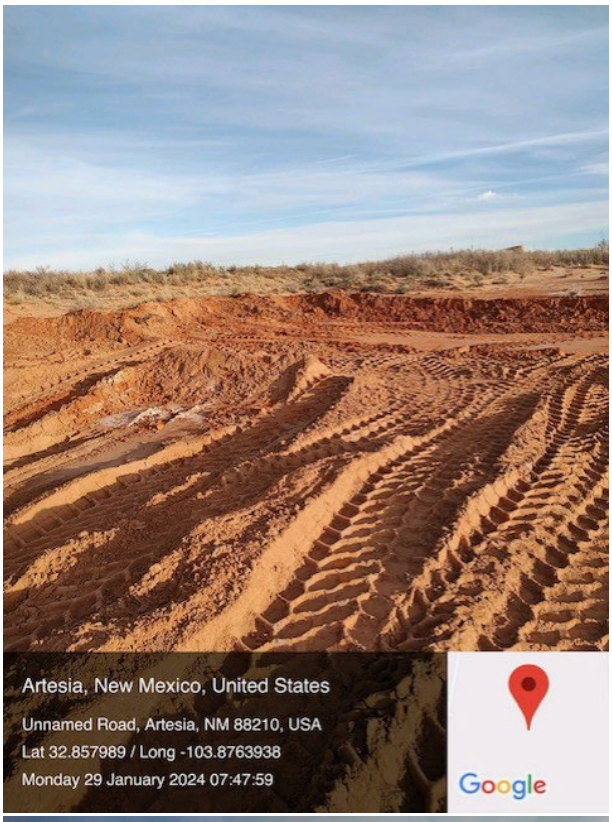
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
		M Burton	[illegible]		2/2/24	1030
2/2/24	1900	[illegible]	[illegible]	courier	2/3/24	9:40

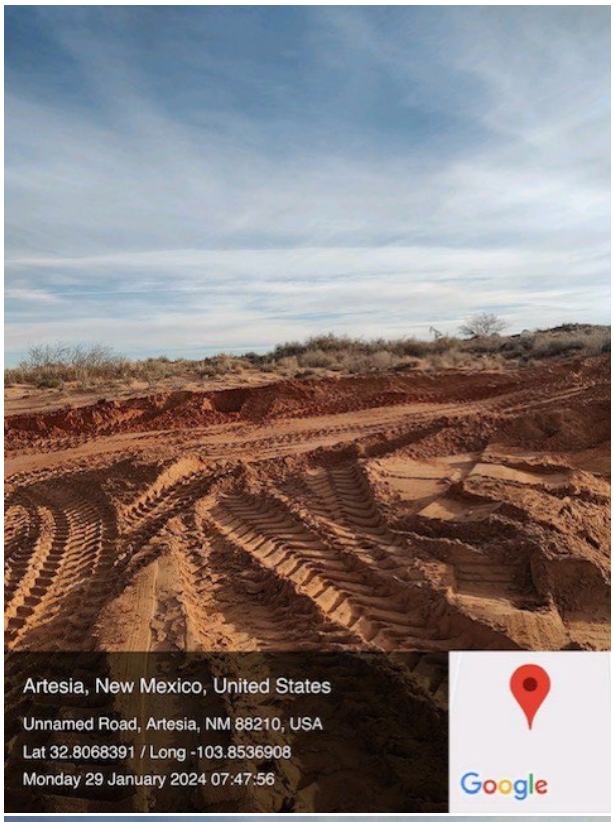
Remarks:
CC-Mike@LHOperating.com
CC Strataresources@Outlook.com
total TPH

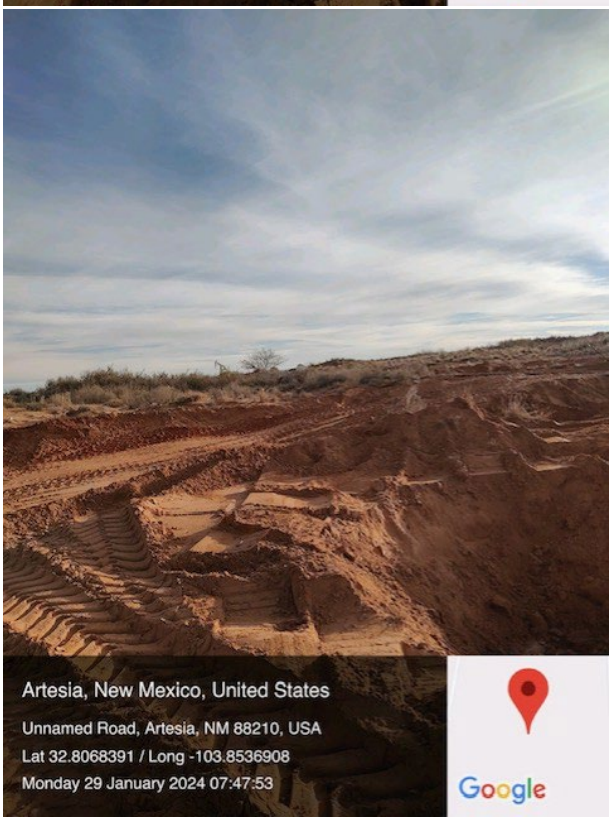
If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

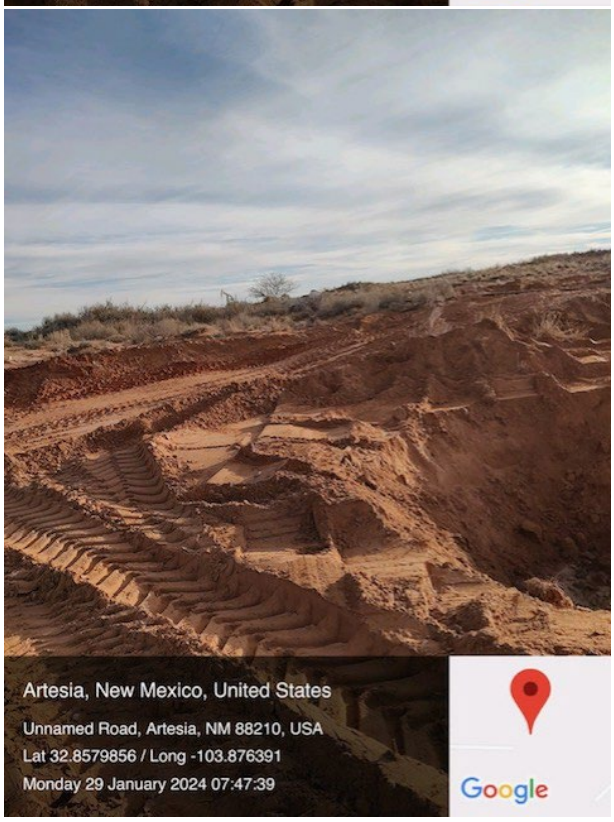
APPENDIX D:
OPEN EXCAVATION PHOTO LOG

Keel B Injection Line (nAPP2333337407)

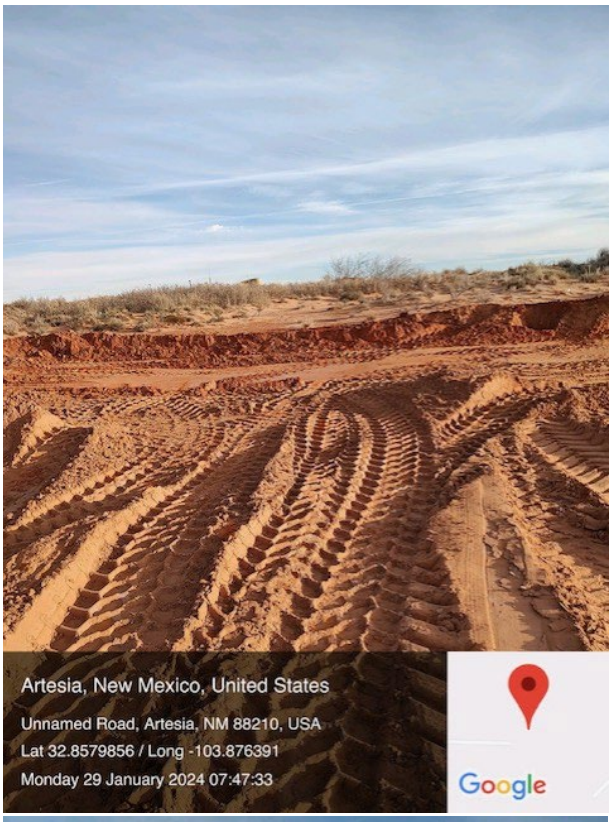


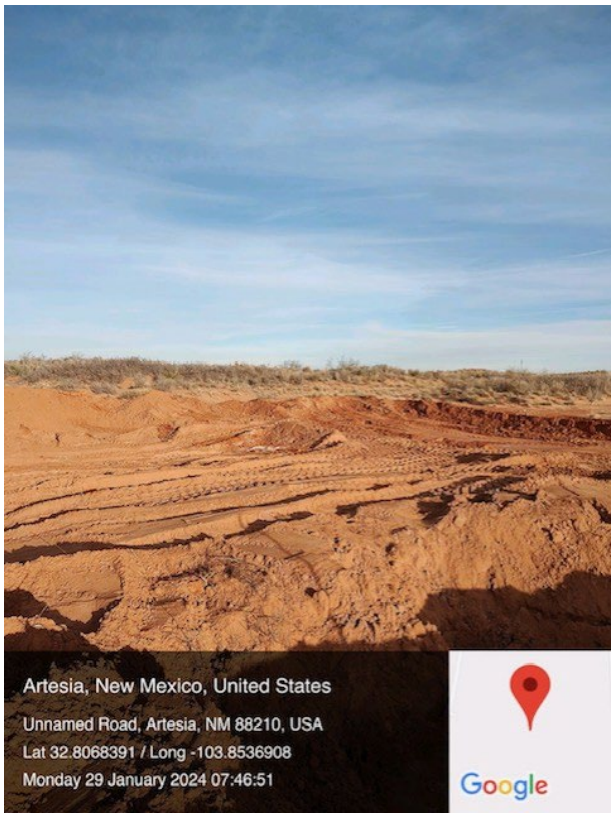


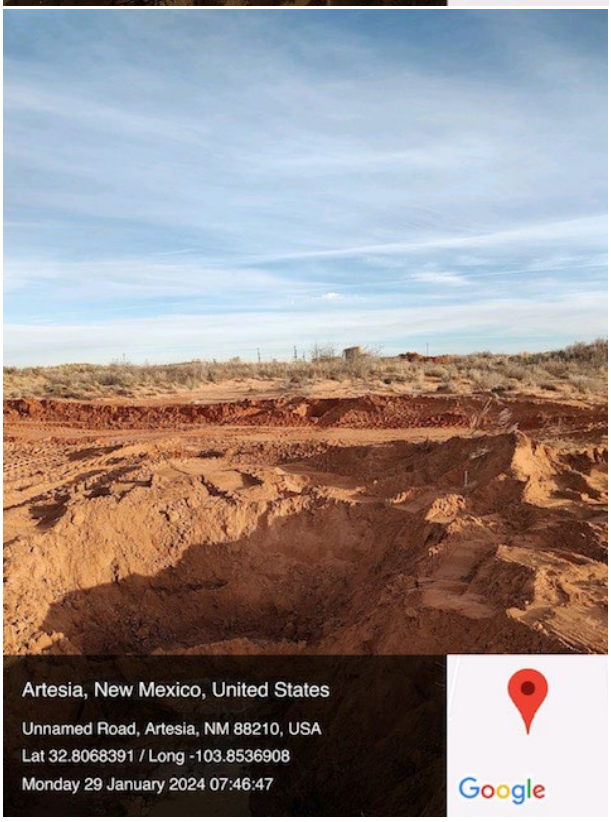




Keel B Injection Line (nAPP2333337407)





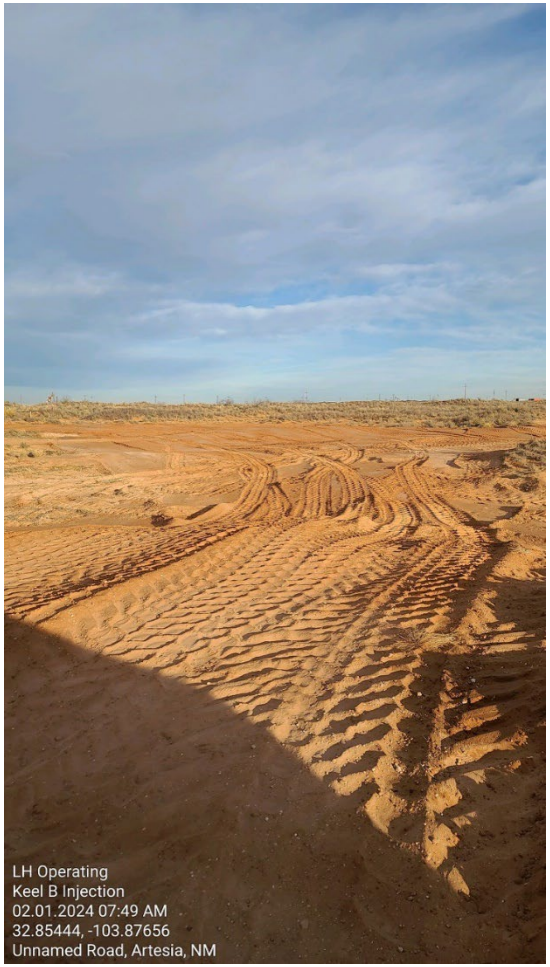


Keel B Injection Line (nAPP2333337407)

APPENDIX E:
RECLAMATION PHOTO LOG

Keel B Injection Line (nAPP2333337407)

Keel B Injection Line (nAPP2333337407)



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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS

Action 344580

QUESTIONS

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2333337407**
Incident Name	**NAPP2333337407 KEEL B INJECTION LINE @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Reclamation Report Received**

Location of Release Source *Please answer all the questions in this group.*	
Site Name	KEEL B INJECTION LINE
Date Release Discovered	11/27/2023
Surface Owner	Federal

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

Nature and Volume of Release *Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Flow Line - Injection | Crude Oil | Released: 2 BBL | Recovered: 2 BBL | Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure | Flow Line - Injection | Produced Water | Released: 2,476 BBL | Recovered: 1,320 BBL | Lost: 1,156 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response *The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.*	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Michael Burton Title: Enviromental Manager Email: mike@lhoperating.com Date: 05/15/2024

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QUESTIONS (continued)

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 75 and 100 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	61
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	62.4
GRO+DRO (EPA SW-846 Method 8015M)	10
BTEX (EPA SW-846 Method 8021B or 8260B)	0.2
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	01/23/2024
On what date will (or did) the final sampling or liner inspection occur	01/30/2024
On what date will (or was) the remediation complete(d)	01/30/2024
What is the estimated surface area (in square feet) that will be reclaimed	3200
What is the estimated volume (in cubic yards) that will be reclaimed	356
What is the estimated surface area (in square feet) that will be remediated	3200
What is the estimated volume (in cubic yards) that will be remediated	356
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Michael Burton Title: Enviromental Manager Email: mike@lhoperating.com Date: 05/15/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**307547**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**01/29/2024**
What was the (estimated) number of samples that were to be gathered	**200**
What was the sampling surface area in square feet	**16000**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	3200
What was the total volume (cubic yards) remediated	356
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	3200
What was the total volume (in cubic yards) reclaimed	356
Summarize any additional remediation activities not included by answers (above)	N/A

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

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

I hereby agree and sign off to the above statement	Name: Michael Burton Title: Enviromental Manager Email: mike@lhoperating.com Date: 05/15/2024

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QUESTIONS (continued)

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report *Only answer the questions in this group if all reclamation steps have been completed.*	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	3200
What was the total volume of replacement material (in cubic yards) for this site	356
Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	02/01/2024
Summarize any additional reclamation activities not included by answers (above)	N/A
The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Michael Burton Title: Enviromental Manager Email: mike@lhoperating.com Date: 05/15/2024

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

QUESTIONS (continued)

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

Action 344580

CONDITIONS

Operator: LH Operating, LLC 3730 Kirby Drive Houston, TX 77098	OGRID: 329319
	Action Number: 344580
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2333337407 KEEL B INJECTION LINE, thank you. This Remediation Closure Report is approved.	5/29/2024