**VIA ELECTRONIC MAIL**

January 14, 2022

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

**Subject:** **2021 Fourth Quarter - Solar SVE System Update**
**Trunk L Tank Battery**
**Harvest Four Corners, LLC**
**Incident Number NVF1900731813**
**Remediation Permit Number 3RP-13665**
**Rio Arriba County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP), on behalf of Harvest Four Corners, LLC (Harvest), presents the following *2021 Fourth Quarter - Solar SVE System Update* report summarizing the solar soil vapor extraction (SVE) system performance at the Trunk L Tank Battery (Site), located in Unit A of Section 28, Township 28 North, Range 05 West, in Rio Arriba County, New Mexico (Figure 1).

## BACKGROUND

The solar SVE system was installed on September 18, 2019, to remediate subsurface soil impacts following a release on December 14, 2018. Excessive liquids were released onto the Site during a pigging event. Additionally, the volume of fluid in the slug catcher was elevated due to a stuck float valve, causing a release of approximately 22 barrels (bbls) into the lined secondary containment. Harvest reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on December 28, 2018, and the event was assigned Incident Number NVF1900731813. A solar SVE system was installed to remediate impacts resulting from the release. Reports summarizing remediation system operation for the previous quarters of system operation have been submitted to the NMOCD.

## SOLAR SVE SYSTEM OPERATION AND MONITORING

The solar SVE system consists of 3 deep SVE wells, 3 shallow SVE wells, and a 2.75 horsepower, three-phase blower capable of producing 105 cubic feet per minute (cfm) at 50 inches of water column (IWC) vacuum, with a maximum vacuum capability of 84 IWC. Each SVE well was installed with its own adjustable valve and vacuum gauge on a manifold to control flow and vacuum. WSP utilized a solar-powered SVE system due to the remote location and the lack of electrical grid power at the Site. The blower is powered by 10 solar panels with a nominal maximum power output of 3,050 watts. The blower is connected to the solar panels via a motor controller that automatically starts the system as soon as sunlight is available and throttles the blower up as sun power increases throughout the day to maximize efficiency. Seasonally, there are approximately 10 hours in the winter and 12 hours in the summer of available solar power in Farmington, New Mexico. The complete solar SVE system is constructed as one unit designed for utilization at off-grid locations and operates autonomously. The layout of the solar SVE system is depicted on Figure 2.

Between startup of the solar SVE system on September 18, 2019, and the most recent site visit on December 27, 2021, there have been 832 days of operation, with an estimated 9,812 total hours of nominal daylight available for solar SVE system operation. Since installation, the system had an actual runtime of 9,928 hours, for an overall

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runtime efficiency of 101.2 percent (%). Below is a table showing SVE system runtime in comparison with nominal available daylight hours per month, according to the National Oceanic and Atmospheric Administration's National Weather Service.

| Time Period | Start up on September 18, 2019 to September 28, 2021 | September 28, 2021 to September 30, 2021 | October 1, 2021 to October 31, 2021 | November 1, 2021 to November 30, 2021 | December 1, 2021, to December 27, 2021 |
|---|---|---|---|---|---|
| Days | 742 | 2 | 31 | 30 | 27 |
| Avg. Nominal Daylight Hours | 12 | 12 | 11 | 10 | 9 |
| Available Runtime Hours | 8,904 | 24 | 341 | 300 | 243 |

| | |
|---|---|
| **Total Available Daylight Runtime Hours** | **9,812** |
| **Actual Runtime Hours** | **9,928** |
| **Cumulative % Runtime** | **101.2%** |
| **Quarterly Available Daylight Runtime Hours** | **908** |
| **Quarterly Runtime Hours** | **934** |
| **Quarterly % Runtime** | **102.9%** |

## AIR EMISSIONS MONITORING

An initial air sample was collected on September 18, 2019, from the influent side of the blower on the solar SVE system. Subsequent air samples were collected with the most recent samples collected November 29, 2021 and December 27, 2021 (Table 1). Samples were collected in 1-Liter Tedlar® bags via a high vacuum air sampler and submitted to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, for analyses of benzene, toluene, ethylbenzene, and total xylenes (BTEX) using United States Environmental Protection Agency (EPA) Method 8021 and total volatile petroleum hydrocarbons (TVPH) using EPA Method 8015.

Estimated air emissions were calculated using air sample data collected to-date (Table 2). The impacted mass source removal via the solar SVE system to-date is an estimated 56,652 pounds (lbs) of TVPH. An estimated 9,137 gallons (218 bbls) of air equivalent condensate has been recovered to-date. An increase in TVPH analytical results was observed due to system optimization in May 2020, through focusing system operation on the four SVE wells with the highest photoionization detector measurements.

## PLAN FOR NEXT QUARTER OF OPERATION

During the upcoming first quarter 2022 operations, visits to the Site will continue monthly by WSP personnel to ensure 90% runtime efficiency continues and that any maintenance issues are addressed. An air sample will be collected in the first quarter and analyzed for full volatile organic compounds (VOCs) by Method 8260, fixed gas analysis of oxygen and carbon dioxide, and TVPH by EPA Method 8015. An updated quarterly report with sample results, runtime, and mass source removal will be submitted under separate cover.

Quarterly air sampling and reporting will continue until a decline in VOCs is observed and indicates that hydrocarbon impacts have been reduced. At that time, WSP will conduct additional soil sampling to investigate potential residual impacts and request closure if concentrations of BTEX and TPH are below the applicable standards as detailed in the approved Remediation Work Plan dated May 28, 2019.

If the final delineation samples indicate hydrocarbon impact has been reduced to below Table 1 Closure Criteria, WSP will present the confirmation laboratory analysis data in a report and request closure of the release. Should the results indicate that analytes in the soil exceed Table 1 Closure Criteria, WSP will continue to operate the system and make operational adjustments based on results of the investigation.

WSP appreciates the opportunity to provide this report to the NMOCD. If you have any questions or comments regarding this update, do not hesitate to contact Eric Carroll at (970) 385-1096 or via email at eric.carroll@wsp.com or Jennifer Deal at (505) 324-5128 or at jdeal@harvestmidstream.com.

Kind regards,

Eric Carroll
Associate Consultant, Geologist

Robert Rebel, P.E.
Environmental Engineer, Technical Principal

cc: Jennifer Deal, Harvest Four Corners

Encl.

Figure 1 - Site Location Map
Figure 2 – SVE System Layout
Table 1 – Air Sample Analytical Results
Table 2 – Soil Vapor System Recovery & Emissions Summary
Enclosure A – Laboratory Analytical Report

# FIGURES

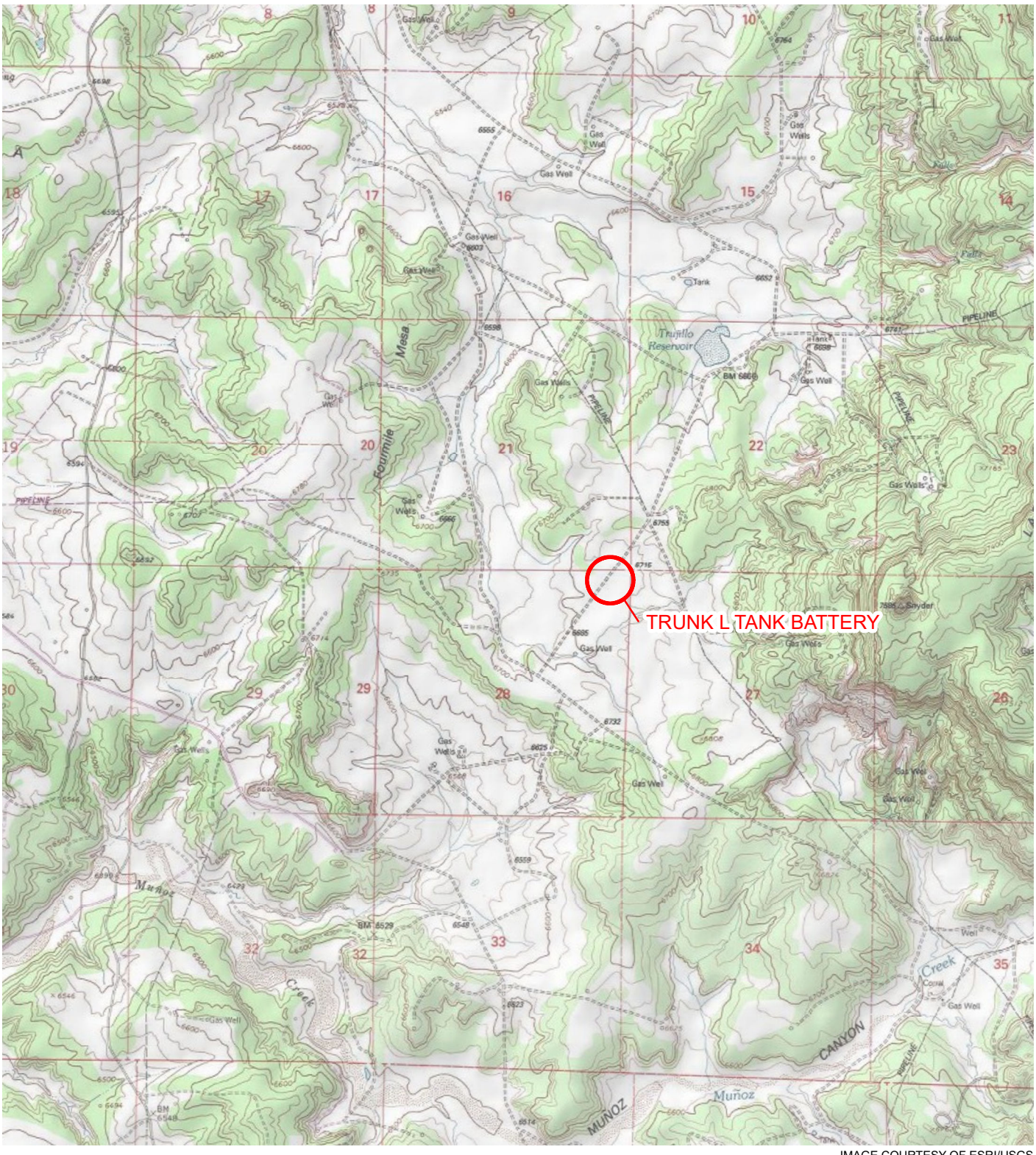


IMAGE COURTESY OF ESRI/USGS

**LEGEND**

SITE LOCATION

0 3,000 6,000

Feet

N

NEW MEXICO

FIGURE 1
SITE LOCATION MAP
TRUNK L TANK BATTERY
NENE SEC 28 T28N R5W
RIO ARRIBA COUNTY, NEW MEXICO
**HARVEST FOUR CORNERS, LLC**

P:\Harvest Four Corners\GIS\MXD\090319022_TRUNK L\090319022_FIG01_SL_2019.mxd


IMAGE COURTESY OF GOOGLE EARTH 2016

**LEGEND**

- SHALLOW SVE WELL
- DEEP SVE WELL
- ABOVEGROUND REMEDIATION SYSTEM LINE
- SOLAR SVE SKID
- 27.5 FOOT SHALLOW SVE RADIUS OF INFLUENCE
- 27.5 FOOT DEEP SVE RADIUS OF INFLUENCE

0 60 120
Feet

N

FIGURE 2
SVE SYSTEM LAYOUT
TRUNK L TANK BATTERY
NENE SEC 28 T28N R5W
RIO ARRIBA COUNTY, NEW MEXICO
**HARVEST FOUR CORNERS, LLC**

wsp

P:\Harvest Four Corners\GIS\MXD\090319022_TRUNK L\090319022_FIG02_SVE_SYSTEM LAYOUT_2020.mxd

# TABLES

**TABLE 1**

**AIR SAMPLE ANALYTICAL RESULTS**
**TRUNK L TANK BATTERY**
**RIO ARRIBA COUNTY, NEW MEXICO**

| Sample ID | Sample Date | Vapor PID (ppm) | Benzene (µg/L) | Toluene (µg/L) | Ethyl-benzene (µg/L) | Total Xylenes (µg/L) | TVPH (µg/L) |
|---|---|---|---|---|---|---|---|
| **Influent 9/18** | 9/18/2019 | 946 | 1,000 | 1,500 | 50 | 550 | NA |
| **Influent 10/18** | 10/18/2019 | 931 | 250 | 410 | 6.5 | 74 | NA |
| **Influent 11/14** | 11/14/2019 | 578 | 1.8 | 4.3 | 0.19 | 1.7 | 250 |
| **Influent 3/3/20** | 3/3/2020 | 868 | 3.9 | 22 | 1.3 | 13 | 760 |
| **Influent 5/1/20** | 5/1/2020 | 913 | 610 | 1,500 | 58 | 570 | 95,000 |
| **Influent 6/10/20** | 6/10/2020 | 1,527 | 640 | 1,600 | 56 | 530 | 95,000 |
| **Influent 9/15** | 9/15/2020 | 1,077 | 180 | 840 | 24 | 230 | 35,000 |
| **Influent 12/2/20** | 12/2/2020 | 1,320 | 380 | 1,100 | 23 | 270 | 86,000 |
| **Influent 3/1/21** | 3/1/2021 | 1,469 | 440 | 2,100 | 110 | 1,100 | 120,000 |
| **Influent 6/8/21** | 6/8/2021 | 1,380 | 300 | 1,200 | 42 | 380 | 89,000 |
| **Influent 9/28/21** | 9/28/2021 | 916 | 150 | 230 | *<10* | 49 | 26,000 |
| **Influent 11/29/2021** | 11/29/2021 | 573 | 78 | 280 | 9.1 | 84 | 19,000 |
| **Influent - 20211227** | 12/27/2021 | -- | 120 | 240 | <5.0 | 47 | 17,000 |

**NOTES:**

µg/L - micrograms per liter

NA - not analyzed

PID - photoionization detector

PPM - parts per million

TVPH- total volume petroleum hydrocarbons

*Italics denote that the laboratory method detection limit was used for calculations for a non-detected result*

**TABLE 2**

**SOIL VAPOR EXTRACTION SYSTEM RECOVERY & EMISSIONS SUMMARY**
**TRUNK L TANK BATTERY**
**RIO ARRIBA COUNTY, NEW MEXICO**

| Sample Information and Lab Analysis | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Date** | **Total Flow (cf)** | **Delta Flow (cf)** | **PID (ppm)** | **Benzene (µg/L)** | **Toluene (µg/L)** | **Ethyl-benzene (µg/L)** | **Total Xylenes (µg/L)** | **TVPH (µg/L)** |
| 9/18/2019* | 3,033 | 3,033 | 1,435 | 1,000 | 1,500 | 50 | 550 | 3,013 |
| 10/18/2019* | 723,303 | 720,270 | 931 | 250 | 410 | 6.5 | 74 | 744 |
| 11/14/2019 | 1,334,343 | 611,040 | 578 | 1.8 | 4.3 | 0.19 | 1.7 | 250 |
| 3/3/2020 | 2,898,866 | 1,564,523 | 868 | 3.9 | 22 | 1.3 | 13 | 760 |
| 4/1/2020** | 3,795,613 | 896,747 | 838 | 3.7 | 21 | 1.2 | 12 | 733 |
| 5/1/2020 | 3,882,637 | 87,024 | 913 | 610 | 1,500 | 58 | 570 | 95,000 |
| 6/10/2020 | 4,869,885 | 987,248 | 1,527 | 640 | 1,600 | 56 | 530 | 95,000 |
| 9/15/2020 | 7,089,263 | 2,219,378 | 1,077 | 180 | 840 | 24 | 230 | 35,000 |
| 12/2/2020 | 8,447,393 | 1,358,130 | 1,320 | 380 | 1,100 | 23 | 270 | 86,000 |
| 3/1/2021 | 10,571,393 | 2,124,000 | 1,469 | 440 | 2,100 | 110 | 1,100 | 120,000 |
| 6/8/2021 | 13,226,681 | 2,655,288 | 1,380 | 300 | 1,200 | 42 | 380 | 89,000 |
| 9/28/2021 | 16,596,641 | 3,369,960 | 916 | 150 | 230 | *10* | 49 | 26,000 |
| 11/29/2021 | 17,746,416 | 1,149,775 | 573 | 78 | 280 | 9.1 | 84 | 19,000 |
| 12/27/2021 | 18,233,905 | 487,489 | -- | 120 | 240 | <5.0 | 47 | 17,000 |
| **Average** | | | 1,063 | 297 | 789 | 30 | 279 | 41,964 |

| Vapor Extraction Calculations | | | | | | |
|---|---|---|---|---|---|---|
| **Date** | **Flow Rate (cfm)** | **Benzene (lb/hr)** | **Toluene (lb/hr)** | **Ethyl-benzene (lb/hr)** | **Total Xylenes (lb/hr)** | **TVPH (lb/hr)** |
| 9/18/2019 | 33.70 | 0.1262 | 0.1892 | 0.0063 | 0.0694 | 0.380 |
| 10/18/2019 | 37.75 | 0.0353 | 0.0579 | 0.0009 | 0.0105 | 0.105 |
| 11/14/2019 | 38.00 | 0.0003 | 0.0006 | 0.0000 | 0.0002 | 0.036 |
| 3/3/2020 | 21.26 | 0.0003 | 0.0018 | 0.0001 | 0.0010 | 0.060 |
| 4/1/2020 | 21.26 | 0.0003 | 0.0017 | 0.0001 | 0.0010 | 0.058 |
| 5/1/2020 | 39.20 | 0.0895 | 0.2201 | 0.0085 | 0.0836 | 13.940 |
| 6/10/2020 | 29.33 | 0.0703 | 0.1757 | 0.0061 | 0.0582 | 10.430 |
| 9/15/2020 | 27.77 | 0.0187 | 0.0873 | 0.0025 | 0.0239 | 3.638 |
| 12/2/2020 | 26.63 | 0.0379 | 0.1097 | 0.0023 | 0.0269 | 8.573 |
| 3/1/2021 | 40.00 | 0.0659 | 0.3144 | 0.0165 | 0.1647 | 17.968 |
| 6/8/2021 | 34.20 | 0.0384 | 0.1536 | 0.0054 | 0.0486 | 11.394 |
| 9/28/2021 | 37.00 | 0.0208 | 0.0319 | 0.0014 | 0.0068 | 3.601 |
| 11/29/2021 | 28.73 | 0.0084 | 0.0301 | 0.0010 | 0.0090 | 2.043 |
| 12/27/2021 | 30.43 | 0.0137 | 0.0273 | 0.0006 | 0.0054 | 1.936 |
| **Average** | 31.80 | 0.04 | 0.10 | 0.004 | 0.04 | 5.30 |

**TABLE 2**

**SOIL VAPOR EXTRACTION SYSTEM RECOVERY & EMISSIONS SUMMARY**
**TRUNK L TANK BATTERY**
**RIO ARRIBA COUNTY, NEW MEXICO**

| Pounds Extracted Over Total Operating Time | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Date** | **Total Operational Hours** | **Delta Hours** | **Benzene (lbs)** | **Toluene (lbs)** | **Ethyl-benzene (lbs)** | **Total Xylenes (lbs)** | **Total BTEX (lbs)** | **TVPH (lbs)** |
| 9/18/2019 | 1.5 | 1.5 | 0.2 | 0.3 | 0.0 | 0.1 | 0.6 | 0.6 |
| 10/18/2019 | 319.5 | 318.0 | 11.2 | 18.4 | 0.3 | 3.3 | 33.3 | 33.4 |
| 11/14/2019 | 587.5 | 268.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.3 | 9.5 |
| 3/3/2020 | 1,814 | 1,226.5 | 0.4 | 2.1 | 0.1 | 1.3 | 3.9 | 74.2 |
| 4/1/2020 | 2,517 | 703.0 | 0.2 | 1.2 | 0.1 | 0.7 | 2.1 | 41.0 |
| 5/1/2020 | 2,554 | 37.0 | 3.3 | 8.1 | 0.3 | 3.1 | 14.9 | 515.8 |
| 6/10/2020 | 3,115 | 561.0 | 39.4 | 98.6 | 3.4 | 32.6 | 174.1 | 5,851 |
| 9/15/2020 | 4,447 | 1,332.0 | 24.9 | 116.3 | 3.3 | 31.8 | 176.4 | 4,846 |
| 12/2/2020 | 5,297 | 850.0 | 32.2 | 93.2 | 1.9 | 22.9 | 150.2 | 7,287 |
| 3/1/2021 | 6,182 | 885.0 | 58.3 | 278.3 | 14.6 | 145.8 | 496.9 | 15,902 |
| 6/8/2021 | 7,476 | 1,294.0 | 49.7 | 198.8 | 7.0 | 63.0 | 318.4 | 14,744 |
| 9/28/2021 | 8,994 | 1,518.0 | 31.5 | 48.4 | 2.1 | 10.3 | 92.3 | 5,467 |
| 11/29/2021 | 9,661 | 667.0 | 5.6 | 20.1 | 0.7 | 6.0 | 32.4 | 1,363 |
| 12/27/2021 | 9,928 | 267.0 | 3.6 | 7.3 | 0.2 | 1.4 | 12.5 | 517 |
| **Total Extracted to Date** | | | 260.7 | 891.2 | 34.0 | 322.4 | 1,508.3 | 56,652 |

**NOTES:**

* - TVPH data extrapolated from PID values
** - Analytical data extrapolated from PID values
BTEX - benzene, toluene, ethylbenzene, total xylenes
cf - cubic feet
cfm - cubic feet per minute
lbs - pounds
lb/hr - pounds per hour
µg/L - microgram per liter
PID - photoionization detector
ppm - parts per million
TVPH - total volatile petroleum hydrocarbons

*Italics denote that the laboratory method detection limit was used for calculations for a non-detected result*

# ENCLOSURE A – LABORATORY ANALYTICAL REPORT

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Danny Burns

Harvest
1755 Arroyo Dr.
Bloomfield, NM 87413
TEL:
FAX

RE: Trunk L OrderNo.: 2112262

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/3/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **2112262**
Date Reported:

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Harvest
**Client Sample ID:** Influent 11/29
**Project:** Trunk L
**Collection Date:** 11/29/2021 3:00:00 PM
**Lab ID:** 2112262-001 **Matrix:** AIR **Received Date:** 12/3/2021 8:00:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | 19000 | 250 | | µg/L | 50 | 12/6/2021 9:29:21 AM | A84322 |
| Surr: BFB | 136 | 37.3-213 | | %Rec | 50 | 12/6/2021 9:29:21 AM | A84322 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Methyl tert-butyl ether (MTBE) | ND | 12 | | µg/L | 50 | 12/6/2021 9:29:21 AM | B84322 |
| Benzene | 78 | 5.0 | | µg/L | 50 | 12/6/2021 9:29:21 AM | B84322 |
| Toluene | 280 | 5.0 | | µg/L | 50 | 12/6/2021 9:29:21 AM | B84322 |
| Ethylbenzene | 9.1 | 5.0 | | µg/L | 50 | 12/6/2021 9:29:21 AM | B84322 |
| Xylenes, Total | 84 | 10 | | µg/L | 50 | 12/6/2021 9:29:21 AM | B84322 |
| Surr: 4-Bromofluorobenzene | 108 | 70-130 | | %Rec | 50 | 12/6/2021 9:29:21 AM | B84322 |

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

**Qualifiers:**

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

# Sample Log-In Check List

Client Name: Harvest | Work Order Number: 2112262 | RcptNo: 1

Received By: **Sean Livingston** 12/3/2021 8:00:00 AM

Completed By: **Kasandra Payan** 12/3/2021 12:07:18 PM

Reviewed By: JSR 12/3/21

## Chain of Custody

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

## Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JR 12.3.21

## 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 | N/A | Good | | | | |

# Chain-of-Custody Record

Client: Harvest Four Corners
Monica Sandaval
Mailing Address:
Phone #:
email or Fax#: monica.sandaval@harvestmidstream.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☒ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: TRUNKL
Project #:
Project Manager: Danny Burns - WSP
Sampler: E. Carroll - WSP
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 2.7-0.1=2.6 (°C)

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

| Date | Time | Matrix | Sample Name | Container Type and # | Preservative Type | HEAL No. 2112262 | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11-29 | 1500 | Air | Influent 11-29 | Tedlar | | 001 | X | X | | | | | | | | |
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| Date: | Time: | Relinquished by: | Received by: | Via: | Date | Time |
|---|---|---|---|---|---|---|
| 12-2 | 1537 | | NM | Walk | 12/2/21 | 1537 |
| 12/2/21 | 1811 | | Sa | courier | 12/3/21 | 8:00 |

Remarks:
cc: eric.carroll@wsp.com

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 05, 2022

Danny Burns

Harvest
1755 Arroyo Dr.
Bloomfield, NM 87413
TEL: (505) 632-4475
FAX:

RE: Trunk L OrderNo.: 2112D92

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/28/2021 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **2112D92**
Date Reported: **1/5/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Harvest
**Client Sample ID:** Influent- 20211227
**Project:** Trunk L
**Collection Date:** 12/27/2021 12:00:00 PM
**Lab ID:** 2112D92-001 **Matrix:** AIR
**Received Date:** 12/28/2021 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **CCM** | |
| Gasoline Range Organics (GRO) | 17000 | 250 | | µg/L | 50 | 12/28/2021 4:53:00 PM | G84812 |
| Surr: BFB | 103 | 70-130 | | %Rec | 50 | 12/28/2021 4:53:00 PM | G84812 |
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **CCM** | |
| Benzene | 120 | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Toluene | 240 | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Ethylbenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Methyl tert-butyl ether (MTBE) | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,2,4-Trimethylbenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,3,5-Trimethylbenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,2-Dichloroethane (EDC) | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,2-Dibromoethane (EDB) | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Naphthalene | ND | 10 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1-Methylnaphthalene | ND | 20 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 2-Methylnaphthalene | ND | 20 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Acetone | ND | 50 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Bromobenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Bromodichloromethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Bromoform | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Bromomethane | ND | 10 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 2-Butanone | ND | 50 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Carbon disulfide | ND | 50 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Carbon tetrachloride | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Chlorobenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Chloroethane | ND | 10 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Chloroform | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Chloromethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 2-Chlorotoluene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 4-Chlorotoluene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| cis-1,2-DCE | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| cis-1,3-Dichloropropene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,2-Dibromo-3-chloropropane | ND | 10 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Dibromochloromethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Dibromomethane | ND | 10 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,2-Dichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,3-Dichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,4-Dichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Dichlorodifluoromethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,1-Dichloroethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,1-Dichloroethene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2112D92**
Date Reported: **1/5/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Harvest
**Client Sample ID:** Influent- 20211227
**Project:** Trunk L
**Collection Date:** 12/27/2021 12:00:00 PM
**Lab ID:** 2112D92-001 **Matrix:** AIR **Received Date:** 12/28/2021 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **CCM** | |
| 1,2-Dichloropropane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,3-Dichloropropane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 2,2-Dichloropropane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,1-Dichloropropene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Hexachlorobutadiene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 2-Hexanone | ND | 50 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Isopropylbenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 4-Isopropyltoluene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 4-Methyl-2-pentanone | ND | 50 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Methylene chloride | ND | 15 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| n-Butylbenzene | ND | 15 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| n-Propylbenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| sec-Butylbenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Styrene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| tert-Butylbenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Tetrachloroethene (PCE) | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| trans-1,2-DCE | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| trans-1,3-Dichloropropene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,1,1-Trichloroethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,1,2-Trichloroethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Trichloroethene (TCE) | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Trichlorofluoromethane | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| 1,2,3-Trichloropropane | ND | 10 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Vinyl chloride | ND | 5.0 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Xylenes, Total | 47 | 7.5 | | µg/L | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Surr: Dibromofluoromethane | 99.5 | 70-130 | | %Rec | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Surr: 1,2-Dichloroethane-d4 | 84.1 | 70-130 | | %Rec | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Surr: Toluene-d8 | 101 | 70-130 | | %Rec | 50 | 12/28/2021 4:53:00 PM | R84812 |
| Surr: 4-Bromofluorobenzene | 101 | 70-130 | | %Rec | 50 | 12/28/2021 4:53:00 PM | R84812 |

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 | 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 range due to dilution or matrix interference | | |

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# ANALYTICAL SUMMARY REPORT

January 05, 2022

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: G21120451

Project Name: Not Indicated

Energy Laboratories Inc. Gillette WY received the following 1 sample for Hall Environmental on 12/30/2021 for analysis.

| Lab ID | Client Sample ID | Collect Date | Receive Date | Matrix | Test |
|---|---|---|---|---|---|
| G21120451-001 | 2112D92-001B; Influent-20211227 | 12/27/21 12:00 | 12/30/21 | Gas | Natural Gas Analysis - BTU<br>Natural Gas Analysis - Compressibility Factor<br>Natural Gas Analysis - GPM<br>Natural Gas Analysis - Molecular Weight<br>Natural Gas Analysis - Routine<br>Natural Gas Analysis - Pressure Base<br>Natural Gas Analysis - Psuedo-Critical Pressure<br>Natural Gas Analysis - Psuedo-Critical Temperature<br>Natural Gas Analysis - Specific Gravity<br>Natural Gas Analysis - Temperature Base |

The analyses presented in this report were performed by Energy Laboratories, Inc., 400 W. Boxelder Rd., Gillette, WY 82718, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these tests results, please contact your Project Manager.

Report Approved By:

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# LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Hall Environmental
**Project:** Not Indicated
**Client Sample ID:** 2112D92-001B; Influent-20211227
**Location:**
**Lab ID:** G21120451-001

**Report Date:** 01/05/22
**Collection Date:** 12/27/21 12:00
**Date Received:** 12/30/21
**Sampled By:** Not Indicated

| Analyses | Result | Units | Qualifier | Method | Analysis Date / By |
|---|---|---|---|---|---|
| **NATURAL GAS CHROMATOGRAPHIC ANALYSIS REPORT** | | | | | |
| Oxygen | 19.369 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Nitrogen | 78.880 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Carbon Dioxide | 1.493 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Hydrogen Sulfide | < 0.001 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Methane | < 0.001 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Ethane | < 0.001 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Propane | < 0.001 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Isobutane | < 0.001 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| n-Butane | < 0.001 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Isopentane | 0.002 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| n-Pentane | 0.003 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| Hexanes plus | 0.253 | Mol % | | GPA 2261 | 01/05/22 08:42 / djb |
| **GPM @ STD COND/1000 CU.FT., MOISTURE FREE GAS** | | | | | |
| GPM Ethane | < 0.0003 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| GPM Propane | < 0.0003 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| GPM Isobutane | < 0.0003 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| GPM n-Butane | < 0.0003 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| GPM Isopentane | 0.0010 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| GPM n-Pentane | 0.0010 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| GPM Hexanes plus | 0.1100 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| GPM Pentanes plus | 0.1120 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| GPM Total | 0.1120 | gal/MCF | | GPA 2261 | 01/05/22 08:42 / djb |
| **CALCULATED PROPERTIES** | | | | | |
| Calculation Pressure Base | 14.730 | psia | | GPA 2261 | 01/05/22 08:42 / djb |
| Calculation Temperature Base | 60 | °F | | GPA 2261 | 01/05/22 08:42 / djb |
| Compressibility Factor, Z | 1.0000 | unitless | | GPA 2261 | 01/05/22 08:42 / djb |
| Molecular Weight | 29.19 | unitless | | GPA 2261 | 01/05/22 08:42 / djb |
| Pseudo-critical Pressure, psia | 548 | psia | | GPA 2261 | 01/05/22 08:42 / djb |
| Pseudo-critical Temperature, deg R | 244 | deg R | | GPA 2261 | 01/05/22 08:42 / djb |
| Specific Gravity (air=1.000) | 1.011 | unitless | | GPA 2261 | 01/05/22 08:42 / djb |
| Gross BTU per cu ft @ std cond, dry | 13.25 | BTU/cu ft | | GPA 2261 | 01/05/22 08:42 / djb |
| Gross BTU per cu ft @ std cond, wet | 13.02 | BTU/cu ft | | GPA 2261 | 01/05/22 08:42 / djb |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

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# QA/QC Summary Report

Prepared by Gillette, WY Branch

**Client:** Hall Environmental **Work Order:** G21120451 **Report Date:** 01/05/22

| Analyte | Result | Units | RL | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method:** **GPA 2261** | | | | | | | | | Analytical Run: R268825 |
| **Lab ID:** **ICV-2201050819** | Initial Calibration Verification Standard | | | | | | | | 01/05/22 08:20 |
| Oxygen | 0.383 | Mol % | 0.001 | 95 | 75 | 110 | | | |
| Nitrogen | 5.071 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Carbon Dioxide | 4.902 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| Hydrogen Sulfide | 0.129 | Mol % | 0.001 | 130 | 100 | 136 | | | |
| Methane | 73.236 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Ethane | 5.011 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Propane | 5.015 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Isobutane | 1.991 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Butane | 1.971 | Mol % | 0.001 | 98 | 90 | 110 | | | |
| Isopentane | 0.987 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Pentane | 0.998 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Hexanes plus | 0.306 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| **Lab ID:** **CCV-2201050825** | Continuing Calibration Verification Standard | | | | | | | | 01/05/22 08:26 |
| Oxygen | 0.603 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Nitrogen | 1.279 | Mol % | 0.001 | 91 | 85 | 110 | | | |
| Carbon Dioxide | 0.952 | Mol % | 0.001 | 95 | 90 | 110 | | | |
| Hydrogen Sulfide | 0.027 | Mol % | 0.001 | 108 | 70 | 130 | | | |
| Methane | 93.571 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Ethane | 1.014 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Propane | 1.011 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Isobutane | 0.495 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Butane | 0.494 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| Isopentane | 0.200 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| n-Pentane | 0.200 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Hexanes plus | 0.154 | Mol % | 0.001 | 103 | 90 | 110 | | | |
| **Lab ID:** **CCV-2201050932** | Continuing Calibration Verification Standard | | | | | | | | 01/05/22 09:33 |
| Oxygen | 0.599 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Nitrogen | 1.262 | Mol % | 0.001 | 90 | 85 | 110 | | | |
| Carbon Dioxide | 0.954 | Mol % | 0.001 | 95 | 90 | 110 | | | |
| Hydrogen Sulfide | 0.028 | Mol % | 0.001 | 112 | 70 | 130 | | | |
| Methane | 93.585 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Ethane | 1.021 | Mol % | 0.001 | 102 | 90 | 110 | | | |
| Propane | 1.011 | Mol % | 0.001 | 101 | 90 | 110 | | | |
| Isobutane | 0.494 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Butane | 0.493 | Mol % | 0.001 | 98 | 90 | 110 | | | |
| Isopentane | 0.199 | Mol % | 0.001 | 99 | 90 | 110 | | | |
| n-Pentane | 0.200 | Mol % | 0.001 | 100 | 90 | 110 | | | |
| Hexanes plus | 0.154 | Mol % | 0.001 | 103 | 90 | 110 | | | |
| **Method:** **GPA 2261** | | | | | | | | | Batch: R268825 |
| **Lab ID:** **G21120451-001ADUP** | Sample Duplicate | | | | Run: Varian GC_220105A | | | | 01/05/22 08:48 |
| Oxygen | 19.367 | Mol % | 0.001 | | | | 0.0 | 10 | |

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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# QA/QC Summary Report

Prepared by Gillette, WY Branch

**Client:** Hall Environmental **Work Order:** G21120451 **Report Date:** 01/05/22

| Analyte | Result | Units | RL | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method:** **GPA 2261** | | | | | | | | Batch: R268825 | |
| **Lab ID:** **G21120451-001ADUP** | Sample Duplicate | | | | Run: Varian GC_220105A | | | 01/05/22 08:48 | |
| Nitrogen | 78.873 | Mol % | 0.001 | | | | 0.0 | 10 | |
| Carbon Dioxide | 1.493 | Mol % | 0.001 | | | | 0.0 | 10 | |
| Hydrogen Sulfide | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Methane | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Ethane | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Propane | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Isobutane | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| n-Butane | < 0.001 | Mol % | 0.001 | | | | | 10 | |
| Isopentane | 0.002 | Mol % | 0.001 | | | | 0.0 | 10 | |
| n-Pentane | 0.004 | Mol % | 0.001 | | | | 29 | 10 | R |
| Hexanes plus | 0.261 | Mol % | 0.001 | | | | 3.1 | 10 | |

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

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# Work Order Receipt Checklist

## Hall Environmental

## G21120451

Login completed by: Chantel S. Johnson
Date Received: 12/30/2021
Reviewed by: Misty Stephens
Received by: csj
Reviewed Date: 12/31/2021
Carrier name: FedEx

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on all shipping container(s)/cooler(s)? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on all sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes ☑ | No ☐ | |
| Temp Blank received in all shipping container(s)/cooler(s)? | Yes ☐ | No ☐ | Not Applicable ☑ |
| Container/Temp Blank temperature: | °C | | |
| Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4"). | Yes ☐ | No ☐ | No VOA vials submitted ☑ |
| Water - pH acceptable upon receipt? | Yes ☐ | No ☐ | Not Applicable ☑ |

### Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

### Contact and Corrective Action Comments:

None

**ENVIRONMENTAL ANALYSIS LABORATORY**

# CHAIN OF CUSTODY RECORD

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



| | | | | | |
|---|---|---|---|---|---|
| SUB CONTRATOR: | Energy Labs-Gillette | COMPANY: | Energy Laboratories | PHONE: | (866) 686-7175 |
| ADDRESS: | 400 W Boxelder Rd | | | ACCOUNT #: | |
| CITY, STATE, ZIP: | Gillette, WY 82718 | | | | |

| ITEM | SAMPLE | CLIENT SAMPLE ID | BOTTLE TYPE | MATRIX | COLLECTION DATE | # CONTAINERS | ANALYTICAL COMMENTS |
|---|---|---|---|---|---|---|---|
| 1 | 2112D92-001B | Influent- 20211227 | TEDLAR | Air | 12/27/2021 12:00:00 PM | 1 | Natural Gas Analysis |

**SPECIAL INSTRUCTIONS / COMMENTS:**

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | | Date: 12/28/2021 | Time: 10:23 AM | Received By: | | Date: | Time: |
| Relinquished By: | | Date: | Time: | Received By: | Chantel Atkinson | Date: 12/30/21 | Time: 1423 |
| Relinquished By: | | Date: | Time: | Received By: | | Date: | Time: |

TAT: Standard ✓ RUSH Next BD 2nd BD 3rd BD

REPORT TRANSMITTAL DESIRED:
HARDCOPY (extra cost) FAX EMAIL ONLINE

FOR LAB USE ONLY
Temp of samples 1 °C Attempt to Cool ? N/A
Comments G2112045I

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

# Sample Log-In Check List

Client Name: Harvest | Work Order Number: 2112D92 | RcptNo: 1

Received By: **Tracy Casarrubias** 12/28/2021 7:50:00 AM

Completed By: **Tracy Casarrubias** 12/28/2021 10:14:12 AM

Reviewed By: 12/28/21

## 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 ☐ | Not required |
| 6. Sufficient sample volume for indicated test(s)? | Yes ☑ | No ☐ | |
| 7. Are samples (except VOA and ONG) properly preserved? | Yes ☑ | No ☐ | |
| 8. Was preservative added to bottles? | Yes ☐ | No ☑ | NA ☐ |
| 9. Received at least 1 vial with headspace <1/4" for AQ VOA? | Yes ☐ | No ☐ | NA ☑ |
| 10. Were any sample containers received broken? | Yes ☐ | No ☑ | |
| 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes ☑ | No ☐ | |
| 12. Are matrices correctly identified on Chain of Custody? | Yes ☑ | No ☐ | |
| 13. Is it clear what analyses were requested? | Yes ☑ | No ☐ | |
| 14. Were all holding times able to be met? (If no, notify customer for authorization.) | Yes ☑ | No ☐ | |

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: JR 12/28/21

## 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 | NA | Good | Not Present | | | |

# Chain-of-Custody Record

Client: Harvest Midstream
Jennifer Deal

Mailing Address:

Phone #:

email or Fax#: jdeal@harvestmidstream

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

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

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Trunk L

Project #:

Project Manager: Danny Burns/Eric Carroll

Sampler:
On Ice: ☐ Yes ☑ No
# of Coolers: 1
Cooler Temp(including CF): N/A (°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. 2112D92 | 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) | Fixed Gas (O2/CO2) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/27 | 1200 | Air | Influent-20211227 | 2-1-liter Tedlar | — | 001 | | X | | | | | | X | | | X | | | | |
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Remarks:

| Date | Time | Relinquished by: | Received by: | Via: | Date | Time |
|---|---|---|---|---|---|---|
| 12/29/2021 | 1436 | | | courier | 12/28/21 | 7:50 |
| Date: | Time: | Relinquished by: | Received by: | Via: | Date | Time |

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.

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

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

CONDITIONS

Action 74326

## CONDITIONS

| Operator: | OGRID: |
|---|---|
| Harvest Four Corners, LLC<br>1111 Travis Street<br>Houston, TX 77002 | 373888 |
| | Action Number:<br>74326 |
| | Action Type:<br>[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| nvelez | Accepted for the record. See App ID 129946 for most updated status. | 9/21/2022 |