ENSOLUM

2023 Groundwater Monitoring Report

Property:

Lateral 2C-15 Pigging Receiver Sump (8/15/19)
Unit Letter K, Sec 27 T24N R5W
Rio Arriba County, New Mexico

New Mexico EMNRD OCD Incident ID No. NCS1923947897

January 11, 2024

Ensolum Project No. 05A1226105

Prepared for:

Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, NM 87401
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Prepared by:

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LIST OF APPENDICES

1.0 INTRODUCTION

This report describes the 2023 groundwater monitoring activities conducted at the Lateral 2C-15 Pigging Receiver Sump (8/15/19) site, referred to hereinafter as the "Site".

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Lateral 2C-15 Pigging Receiver Sump (8/15/19)
NM EMNRD OCD Incident ID No.	NCS1923947897
Location:	36.282835° North, 107.351995° West Unit Letter K, Section 27, Township 24 North, Range 5 West Rio Arriba County, New Mexico
Property:	Jicarilla Apache Nation
Regulatory:	Jicarilla Apache Nation Environmental Protection Office (JAN-EPO)

On August 15, 2019, natural gas condensate was released from the Enterprise Lateral 2C-15 pigging receiver sump. Excavation activities were performed at the Site during August and September 2019. Following the completion of excavation activities and off-site disposal of the removed hydrocarbon affected soils, confirmation soil samples and two groundwater samples were collected from the open excavation by Rule Engineering, LLC (Rule). In addition, four soil samples were collected from shallow potholes advanced near the adjacent ephemeral wash. Soil analytical results indicated combined total petroleum hydrocarbon (TPH) concentrations exceeding the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) closure criteria on the northeast sidewall and the floor of the excavation. Groundwater analytical results indicated benzene and total xylenes concentrations exceeding the New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs). . The excavation was backfilled with unaffected soils (*Lateral 2C-15 Pigging Receiver Sump Corrective Action Report*, Rule, August 8, 2020).

During December 2019, five soil borings (SB-1 through SB-5) were advanced on-Site by Rule. Subsequent to advancement, the soil borings were completed as two-inch diameter groundwater monitoring wells (MW-1 through MW-5). Analytical results indicated combined TPH concentrations above the New Mexico EMNRD OCD closure criteria for soil (SB-1 (10'-11' and 22.5'-23.5') and SB-3 (25'-26')). Additionally, analytical results indicated benzene, toluene, and total xylenes concentrations above the New Mexico WQCC GQSs in groundwater (monitoring wells MW-1, MW-3, and MW-5) (*Lateral 2C-15 Pigging Receiver Sump Corrective Action Report*, Rule, August 8, 2020).

During February 2020, Rule completed four additional soil borings/monitoring wells (SB-6/MW-6, SB-7/MW-7, SB-8/MW-8, and SB-9/MW-9) to further delineate and evaluate the extent of dissolved-phase hydrocarbon (DPH) in the groundwater and constituents of concern (COCs) in soil. Analytical results indicated combined TPH concentrations above the New Mexico EMNRD OCD closure criteria for soil (SB-7 (20.5'-21')) and benzene and total xylenes concentrations above the New Mexico WQCC GQSs in groundwater (MW-7 and MW-9) (*Lateral 2C-15 Pigging Receiver Sump Corrective Action Report*, Rule, August 8, 2020).

Enterprise transferred environmental consulting oversight to Ensolum, LLC (Ensolum) during May 2020.

Ensolum implemented quarterly groundwater monitoring in 2021. Groundwater analytical results for monitoring wells MW-3, MW-5, and MW-9 indicated benzene, toluene, and total xylenes concentrations exceeding the New Mexico Water WQCC GQSs (*2021 Groundwater Monitoring Report, Ensolum, December 17, 2021*).

During August and September 2022, Ensolum completed additional investigation activities at the Site to further delineate and evaluate the extent of DPH in the groundwater and COCs in soil. Seven additional soil borings (SB-10 through SB-16) were advanced and five of the borings were completed as monitoring wells MW-10 through MW-14. Analytical results indicated combined COC concentrations above the New Mexico EMNRD OCD closure criteria for soil (SB-13 (25'-27') and SB-15 (25'-27')). Groundwater analytical results for monitoring wells MW-3, MW-5, MW-9, and MW-13 indicated COC concentrations above the New Mexico WQCC GQSs (*2022 Supplemental Delineation and Groundwater Monitoring Report*, Ensolum, March 20, 2023).

The Site is under the jurisdiction of the Jicarilla Apache Nation and is subject to regulatory oversight by the JAN-EPO. Ensolum deferred to the 19.15.29 New Mexico Administrative Code (NMAC) and 19.15.30 NMAC, for guidance, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. Additionally, Ensolum utilized the New Mexico WQCC GQSs (20.6.2 NMAC *Ground and Surface Water Protection*) to evaluate groundwater conditions.

The Site location is depicted on **Figure 1** of **Appendix A** which was reproduced from a portion of a United States Geological Survey (USGS) 7.5-minute series topographic map. A **Site Vicinity Map**, created from an aerial photograph, is provided as **Figure 2**, and a **Site Map**, which indicates the approximate locations of the monitoring wells, the extent of the former excavation, excavation sample locations, and previous wash sample locations in relation to pertinent structures and general Site boundaries, is included as **Figure 3** of **Appendix A**.

1.2 Project Objective

The objective of the groundwater monitoring events was to further evaluate the concentrations of COCs in groundwater at the Site.

2.0 GROUNDWATER MONITORING

During 2023, groundwater monitoring events were conducted during January, April, July, and October/November. Ensolum's groundwater sampling program consisted of the collection of one groundwater sample from each monitoring well at the Site. Regulatory correspondence is provided in **Appendix B**.

Ensolum's groundwater sampling program consisted of the following:

- Ensolum gauged the depth to fluids in each monitoring well using an interface probe capable of detecting NAPL. During two of the 2023 (January and July) sampling events, monitoring well MW-1 exhibited a measurable thickness of NAPL and was not sampled.

- The monitoring wells were sampled utilizing micro-purge low-flow sampling techniques. Following the completion of the micro-purge process, one groundwater sample was collected from each monitoring well.

- Low-flow or low-stress sampling refers to sampling methods that are intended to minimize the stress that is imparted to the formation pore water in the vicinity of the well screen. Water level drawdown provides the best indication of the stress that is imparted by a given flow rate for a

given hydrological situation. Pumping rates of 0.1 to 0.5 liters per minute (L/min) are typically maintained during the low-flow/low-stress sampling activities, using dedicated or decontaminated sampling equipment.

- During low-flow sampling, the groundwater samples are collected from each monitoring well once produced groundwater is consistent in color, clarity, pH, temperature, and conductivity. Measurements are typically observed every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for at least three consecutive readings.

- Groundwater samples were collected in laboratory-supplied containers (pre-preserved with mercuric chloride ($HgCl_2$)), labeled, and sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The groundwater samples were relinquished to the courier for Eurofins Environment Testing South Central LLC (Eurofins) (formerly Hall Environmental Analysis Laboratory) of Albuquerque, New Mexico under proper chain-of-custody procedures.

2.1 Groundwater Laboratory Analytical Methods

The groundwater samples collected from the monitoring wells were analyzed for BTEX utilizing U.S. EPA Method SW-846 #8021 or #8260. The laboratory analytical results are summarized in **Table 1** in **Appendix C**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix D**.

A summary of the analytes, sample type, number of samples, and the U.S. EPA-approved method is presented in the following table:

Analyte	Sample Type	No. of Samples	Method
BTEX	Water	55	SW-846 #8021/#8260

2.2 Groundwater Flow Direction

The groundwater gradient at the Site is very flat and the apparent flow direction is varied, but generally trends toward the west. The observed gradient during the 2023 monitoring events ranged from approximately 0.0006 feet per foot (ft/ft) to 0.001 ft/ft across the Site. Groundwater elevation data collected during the 2023 gauging events are presented in **Table 2** (**Appendix C**). Groundwater gradient maps for the 2023 gauging events are included as **Figure 4A** through **4D** (**Appendix A**).

2.3 Groundwater Data Evaluation

Ensolum compared the BTEX laboratory analytical results or laboratory PQLs / RLs associated with the groundwater samples collected from monitoring wells during the 2023 groundwater sampling events to the New Mexico WQCC GQSs. The results of the analyses are summarized in **Table 1** of **Appendix C**. Groundwater Quality Standard Exceedance Zone maps are provided as **Figures 5A** through **5D** of **Appendix A**.

<u>January 2023</u>

- Due to the presence of NAPL hydrocarbon in contact with groundwater of the initial groundwater-bearing unit at monitoring well MW-1 during the January event, that well was not sampled and is not part of the following discussion.

- The January 2023 analytical results for monitoring wells MW-3 and MW-9 indicate benzene concentrations of 48 micrograms per liter (µg/L) and 2,000 µg/L (MW-9), which exceed the WQCC GQS of 5 µg/L. The analytical results for monitoring well MW-5 indicates a benzene concentration of 1.7 µg/L, which is below the WQCC GQS of 5 µg/L. The analytical results for the remaining sampled monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 5 µg/L.

- The January 2023 analytical result for monitoring well MW-9 indicates a toluene concentration of 1,800 µg/L, which exceeds the WQCC GQS of 1,000 µg/L. The analytical result for monitoring well MW-13 indicates a toluene concentration of 180 µg/L, which is below the WQCC GQS of 1,000 µg/L. The analytical results for the remaining sampled monitoring wells do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 1,000 µg/L.

- The January 2023 analytical results for monitoring wells MW-3, MW-5, MW-9, and MW-13 indicate ethylbenzene concentrations ranging from 1.5 µg/L (MW-5) to 210 µg/L (MW-9), which are below the WQCC GQS of 700 µg/L. The analytical results for the remaining sampled monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 700 µg/L.

- The January 2023 analytical results for monitoring wells MW-9 and MW-13 indicate total xylenes concentrations of 1,500 µg/L and 2,100 µg/L, respectively, which exceed the WQCC GQS of 620 µg/L. The analytical results for monitoring wells MW-2 and MW-5 indicate total xylenes concentrations of 2.7 µg/L and 4.4 µg/L, respectively, which are below the WQCC GQS of 620 µg/L. The analytical results for the remaining sampled monitoring wells do not indicate total xylenes concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 620 µg/L.

- The following data qualifiers were associated with the January 2023 data:

January 2023 Data Qualifier Flags		
Sample IDs	**Data Qualifier Flags**	**Comments/Reactions**
MW-11 (collected 1/26/2023)	Sample Diluted Due to Matrix.	The sample was diluted due to matrix interference. The results are usable for the intended purpose.
MW-13 (collected 1/26/2023)	Sample Diluted Due to Matrix.	The sample was diluted due to matrix interference. The results are usable for the intended purpose.
MW-14 (collected 1/26/2023)	Sample Diluted Due to Matrix.	The sample was diluted due to matrix interference. The results are usable for the intended purpose.

April 2023

- The April 2023 analytical results for monitoring wells MW-1, MW-3, MW-9, and MW-13 indicate benzene concentrations ranging from 5.6 µg/L (MW-13) to 1,400 µg/L (MW-9), which exceed the WQCC GQS of 5 µg/L. The analytical results for the remaining monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 5 µg/L.

- The April 2023 analytical results for monitoring wells MW-1, MW-9, and MW-13 indicate

toluene concentrations of 340 µg/L, 610 µg/L, and 89 µg/L, respectively, which are below the WQCC GQS of 1,000 µg/L. The analytical results for the remaining monitoring wells do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 1,000 µg/L.

- The April 2023 analytical results for monitoring wells MW-2, MW-3, MW-9, and MW-13 indicate ethylbenzene concentrations ranging from 1.1 µg/L (MW-2) to 98 µg/L (MW-13), which are below the WQCC GQS of 700 µg/L. The analytical results for the remaining monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 700 µg/L.

- The April 2023 analytical result for monitoring well MW-13 indicates a total xylenes concentration of 950 µg/L, which exceeds the WQCC GQS of 620 µg/L. The analytical results for monitoring wells MW-2 and MW-9 indicate total xylenes concentrations of 2.8 µg/L and 540 µg/L, respectively, which are below the WQCC GQS of 620 µg/L. The analytical results for the remaining monitoring wells do not indicate total xylenes concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 620 µg/L.

- The following data qualifier was associated with the April 2023 data:

April 2023 Data Qualifier Flag		
Sample IDs	**Data Qualifier Flags**	**Comments/Reactions**
MW-13 (collected 4/20/2023)	SW-846 Method 8021 BTEX Surrogate Recovery was outside the accepted recovery limits.	The BTEX data is suitable for use as an estimated value. The BTEX Surrogate recovery was outside the acceptable recovery range due to matrix interference.

July 2023

- Due to the presence of NAPL hydrocarbon in contact with groundwater of the initial groundwater-bearing unit at monitoring well MW-1 during the July event, that well was not sampled and is not part of the following discussion.

- The July 2023 analytical results for monitoring wells MW-3, MW-5, and MW-9 indicate benzene concentrations ranging from 5.1 µg/L (MW-5) to 2,100 µg/L (MW-9), which exceed the WQCC GQS of 5 µg/L. The analytical result for monitoring well MW-2 indicates a benzene concentration of 1.0 µg/L, which is below the WQCC GQS of 5 µg/L. The analytical results for the remaining sampled monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 5 µg/L.

- The July 2023 analytical results for monitoring wells MW-9 and MW-13 indicate toluene concentration of 840 µg/L and 8.8 µg/L, respectively, which are below the WQCC GQS of 1,000 µg/L. The analytical results for the remaining sampled monitoring wells do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 1,000 µg/L.

- The July 2023 analytical results for monitoring wells MW-3, MW-5, MW-9, and MW-13 indicate ethylbenzene concentrations ranging from 7.3 µg/L (MW-3) to 200 µg/L (MW-9), which are below the WQCC GQS of 700 µg/L. The analytical results for the remaining sampled monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 700 µg/L.

- The July 2023 analytical result for monitoring well MW-9 indicates a total xylenes concentration of 1,300 µg/L, which exceeds the WQCC GQS of 620 µg/L. The analytical results for monitoring wells MW-5 and MW-13 indicate total xylenes concentrations of 18 µg/L and 410 µg/L, which are below the WQCC GQS of 620 µg/L. The analytical results for the remaining sampled monitoring wells do not indicate total xylenes concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 620 µg/L.

- No data qualifier flags are associated with the July 2023 analytical results.

October/November 2023

- The October/November 2023 analytical results for monitoring wells MW-1, MW-3, and MW-9 indicate benzene concentrations ranging from 26 µg/L (MW-3) to 2,000 µg/L (MW-9), which exceed the WQCC GQS of 5 µg/L. The analytical result for monitoring well MW-5 indicates a benzene concentration of 4.9 µg/L, which is below the WQCC GQS of 5 µg/L. The analytical results for the remaining monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 5 µg/L.

- The October/November 2023 analytical result for monitoring well MW-1 indicates a toluene concentration of 2,000 µg/L, which exceeds the WQCC GQS of 1,000 µg/L. The analytical results for monitoring wells MW-9 and MW-13 indicate toluene concentrations of 620 µg/L and 5.7 µg/L, respectively, which are below the WQCC GQS of 1,000 µg/L. The analytical results for the remaining monitoring wells do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 1,000 µg/L.

- The October/November 2023 analytical results for monitoring wells MW-1, MW-3, MW-5, MW-9, and MW-13 indicate ethylbenzene concentrations ranging from 3.0 µg/L (MW-5) to 140 µg/L (MW-9), which are below the WQCC GQS of 700 µg/L. The analytical results for the remaining monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 700 µg/L.

- The October/November 2023 analytical results for monitoring wells MW-1 and MW-9 indicate total xylenes concentrations of 3,400 µg/L and 1,000 µg/L, respectively, which exceed the WQCC GQS of 620 µg/L. The analytical result for monitoring wells MW-2, MW-3, MW-5, and MW-13 indicates total xylenes concentrations ranging from 2.6 µg/L (MW-2) to 180 µg/L (MW-13), which are below the WQCC GQS of 620 µg/L. The analytical results for the remaining monitoring wells do not indicate total xylenes concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 620 µg/L.

- No data qualifier flags are associated with the October/November 2023 analytical results.

3.0 FINDINGS

Based on the evaluation of the analytical results from the groundwater sampling activities, Ensolum presents the following findings:

- During two of the four 2023 groundwater monitoring events (January and July), monitoring well MW-1 exhibited measurable NAPL in contact with the groundwater and was not sampled.

- The groundwater flow direction at the Site is generally towards the west, with a subtle approximate gradient ranging from 0.0006 ft/ft to 0.001 ft/ft across the Site.

- The analytical results for the groundwater samples collected from monitoring wells MW-1 (April and October/November), MW-3, MW-5 (July), MW-9, and MW-13 (April) during the monitoring events indicate that benzene concentrations are above the New Mexico WQCC GQSs. The analytical results for the groundwater samples collected from monitoring well MW-1 (October/November) and MW-9 (January) during the monitoring events indicate that toluene concentrations are above the New Mexico WQCC GQSs. The analytical results for the groundwater samples collected from monitoring wells MW-9 (January, July, and October/November) and MW-13 (January and April) during the monitoring events indicate total xylenes concentrations above the New Mexico WQCC GQS. The analytical results for the groundwater samples collected from the remaining monitoring wells during the four 2023 monitoring events do not indicate DPH or COC concentrations above the applicable WQCC GQSs.

- Dissolve-phase BTEX concentrations remain generally stable or declining.

4.0 RECOMMENDATIONS

Based on the results of the delineation and groundwater monitoring activities, Ensolum has the following recommendations:

- Report the groundwater monitoring data to the JAN-EPO and New Mexico EMNRD OCD.

- Continue quarterly groundwater monitoring as requested by the JAN-EPO.

- Perform additional site assessment activities to the northeast of monitoring well MW-13 and east of monitoring well MW-1 to fully define the groundwater plume and potentially further define the source area soil impacts where possible.

- Evaluate NAPL hydrocarbon removal options and soil remediation options.

5.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

5.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g., laboratories, regulatory agencies, or other third parties).

5.2 Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work, and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings and recommendation are based solely upon data available to Ensolum at the time of these services.

5.3 Reliance

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the Closure Report and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.

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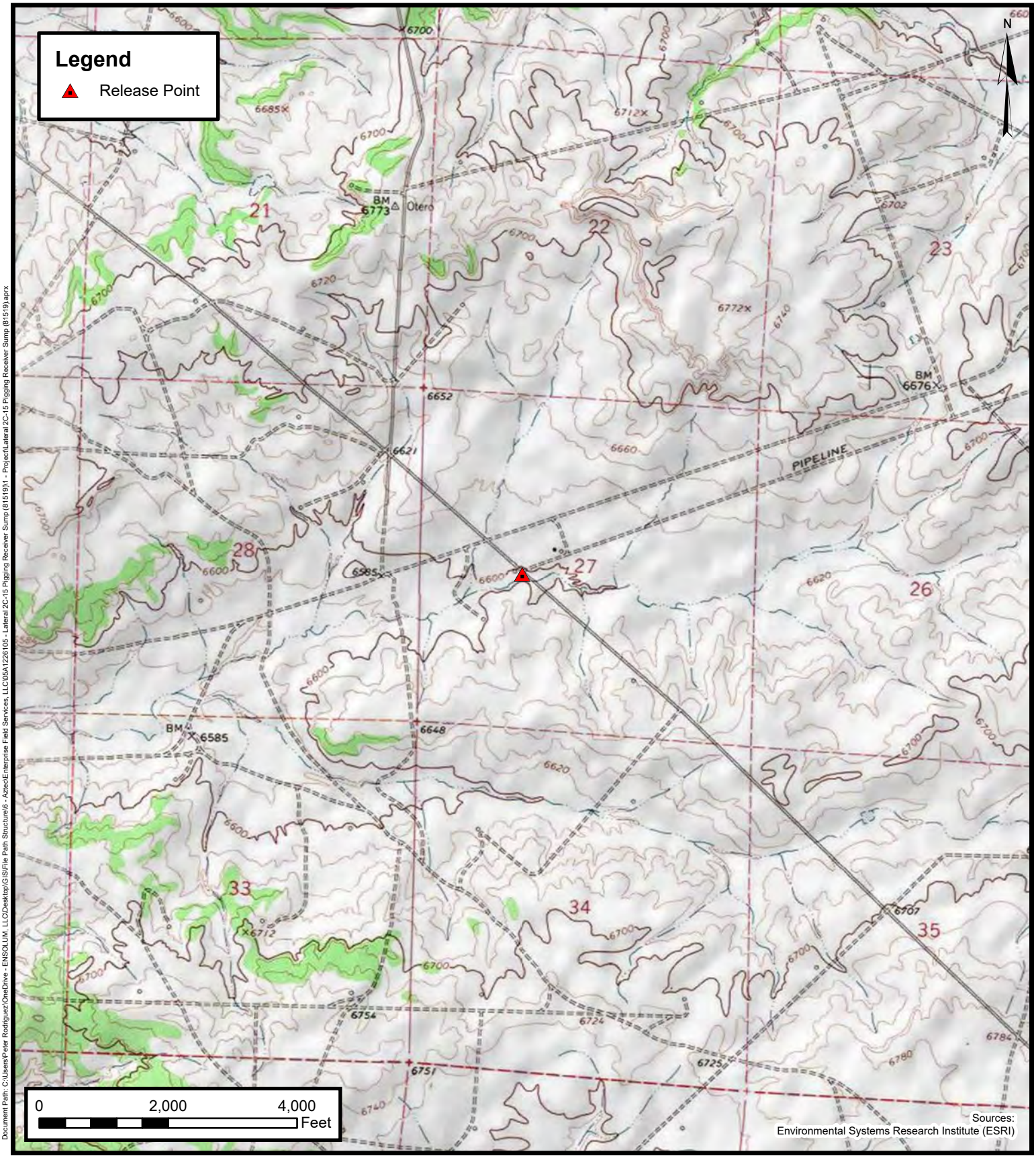
APPENDIX A

Figures



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Topographic Map

Enterprise Field Services, LLC
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
Project Number: 05A1226105
Unit Letter K, S27 T24N R5W, San Juan County, New Mexico
36.282835, -107.351995

FIGURE
1

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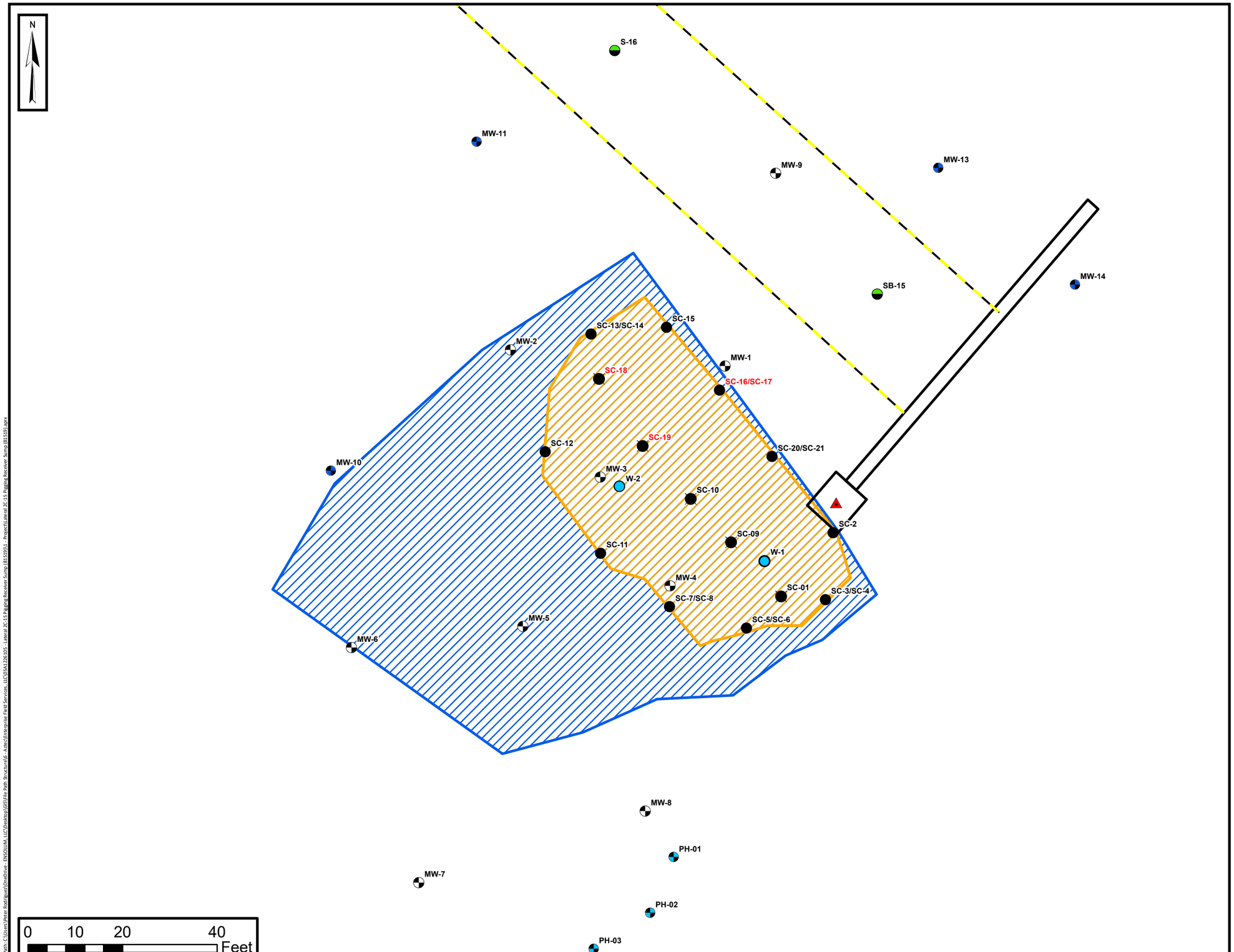
Site Vicinity Map

Enterprise Field Services, LLC
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
Project Number: 05A1226105
Unit Letter K, S27 T24N R5W, San Juan County, New Mexico
36.282835, -107.351995

FIGURE

2



LEGEND

- Release Point
- Monitoring Well Location (Ensolum, 2022)
- Monitoring Well Location (Rule, 2019 & 2020)
- Wash Sample Location (Rule, 2019)
- Open Excavation Water Sample (Rule, 2019)
- Soil Boring Location (Ensolum, 2022)
- Confirmation Wall Sample Location (Rule, 2019)
- Composite Floor Sample Location (Rule, 2019)
- Approximate Pipeline Location
- Extent of the Former Excavation (2019)
- Former Sloped Ramp (2019)

NOTE:
Sample IDs in red exceed the applicable NM EMNRD OCD soil closure criteria.

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Site Map

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP
(8/15/19)
Unit Letter K, S27 T24N R5W
San Juan County, New Mexico
36.282835, -107.351995

Figure

3

Project Number: 05A1226105

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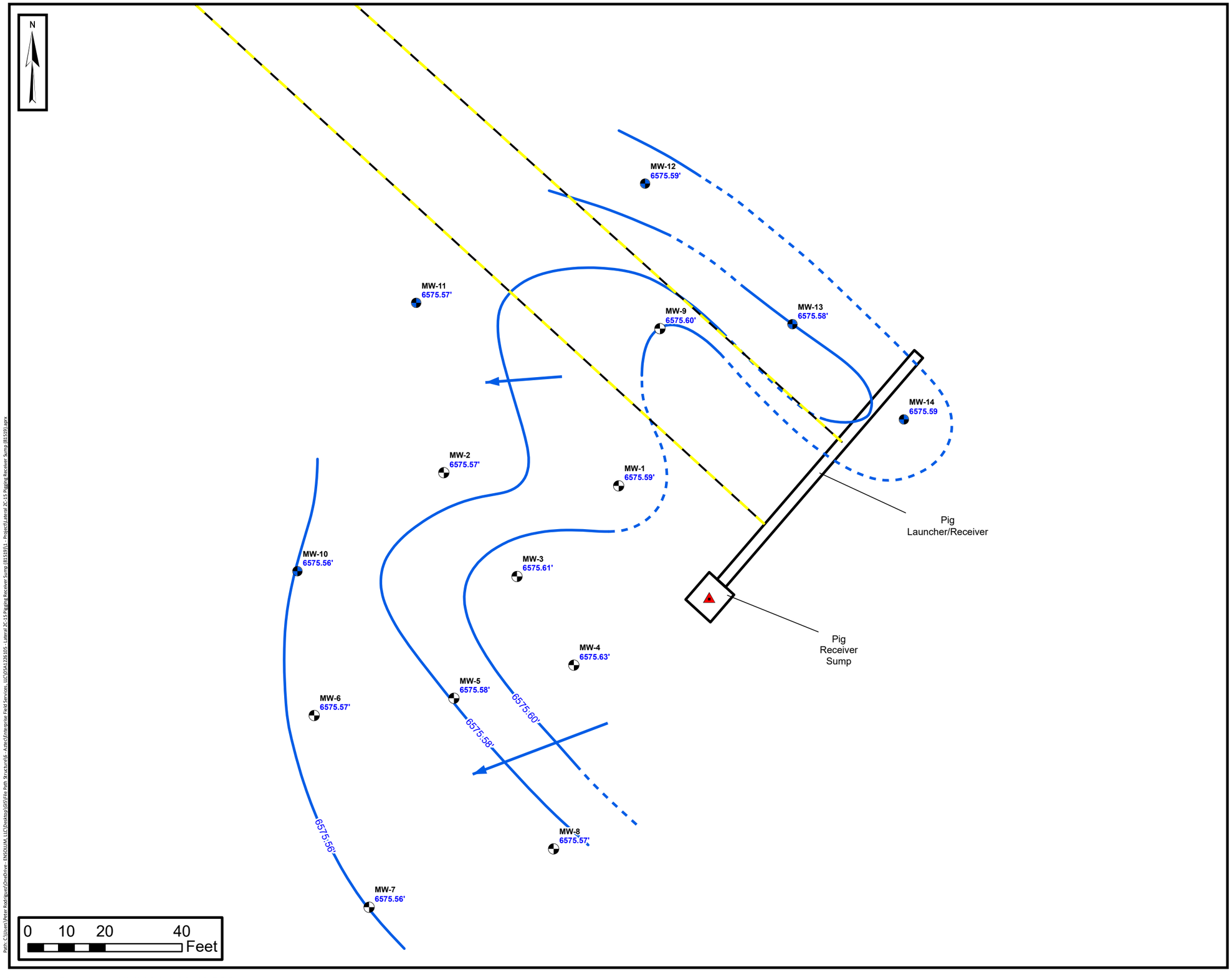

LEGEND

- Release Point
- Monitoring Well Location (Ensolum, 2022)
- Monitoring Well Location (Rule, 2019 & 2020)
- Groundwater Elevation Contour (Contour Interval = 0.02')
- Inferred Groundwater Elevation Contour
- Groundwater Flow Direction
- Approximate Pipeline Location

NOTE:
All groundwater elevations are in **blue** and listed in feet as measured at a set OPUS adjusted central point.

Monitoring well MW-1 was corrected for the presence of phase-separated hydrocarbon using an estimated product specific gravity of 0.825.

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GROUNDWATER GRADIENT MAP (JANUARY 2023)

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP
(8/15/19)
Unit Letter K, S27 T24N R5W
San Juan County, New Mexico
36.282835, -107.351995

Figure

4A

Project Number: 05A1226105

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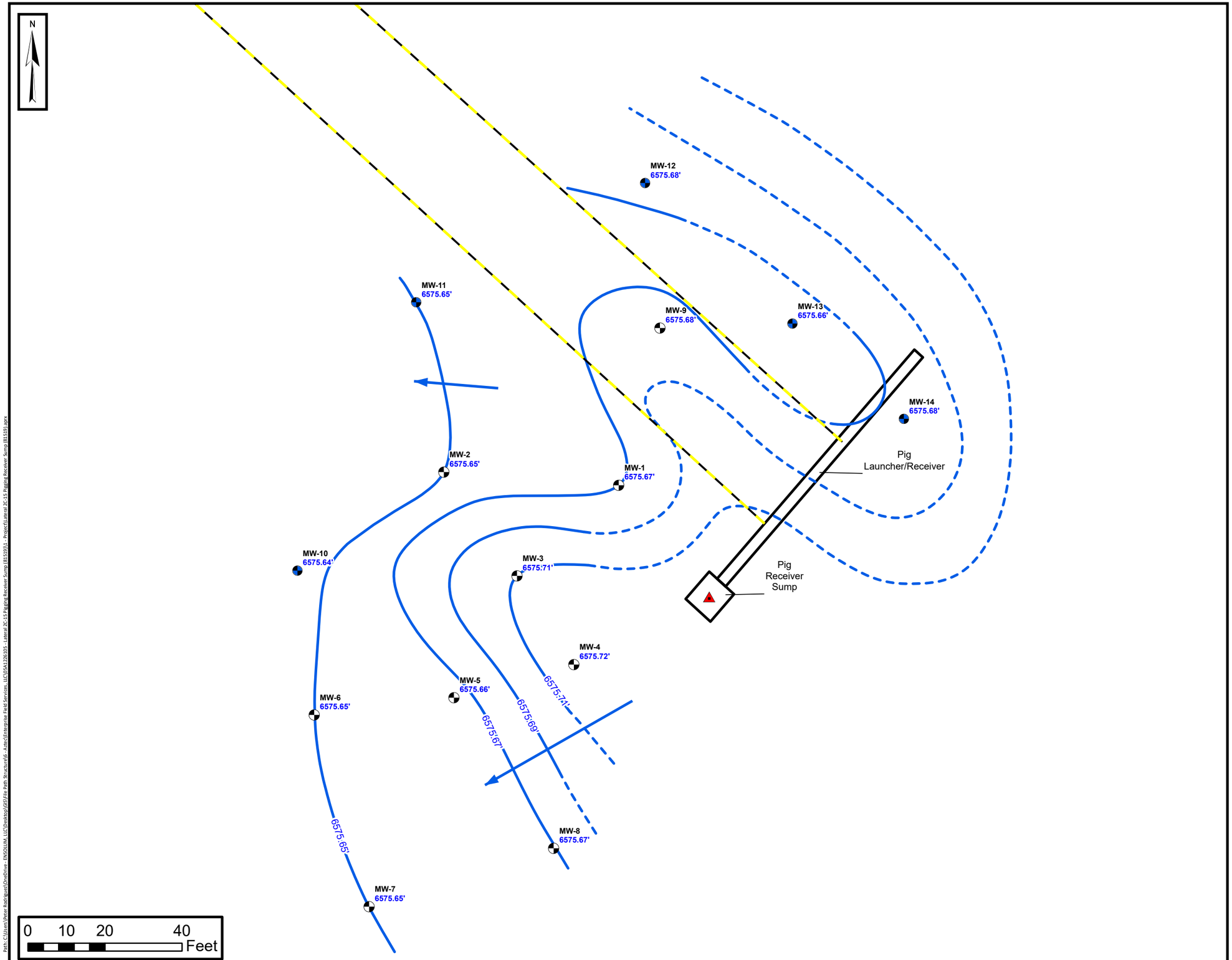

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GROUNDWATER GRADIENT MAP (APRIL 2023)

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP
(8/15/19)
Unit Letter K, S27 T24N R5W
San Juan County, New Mexico
36.282835, -107.351995

Figure

4B

Project Number: 05A1226105

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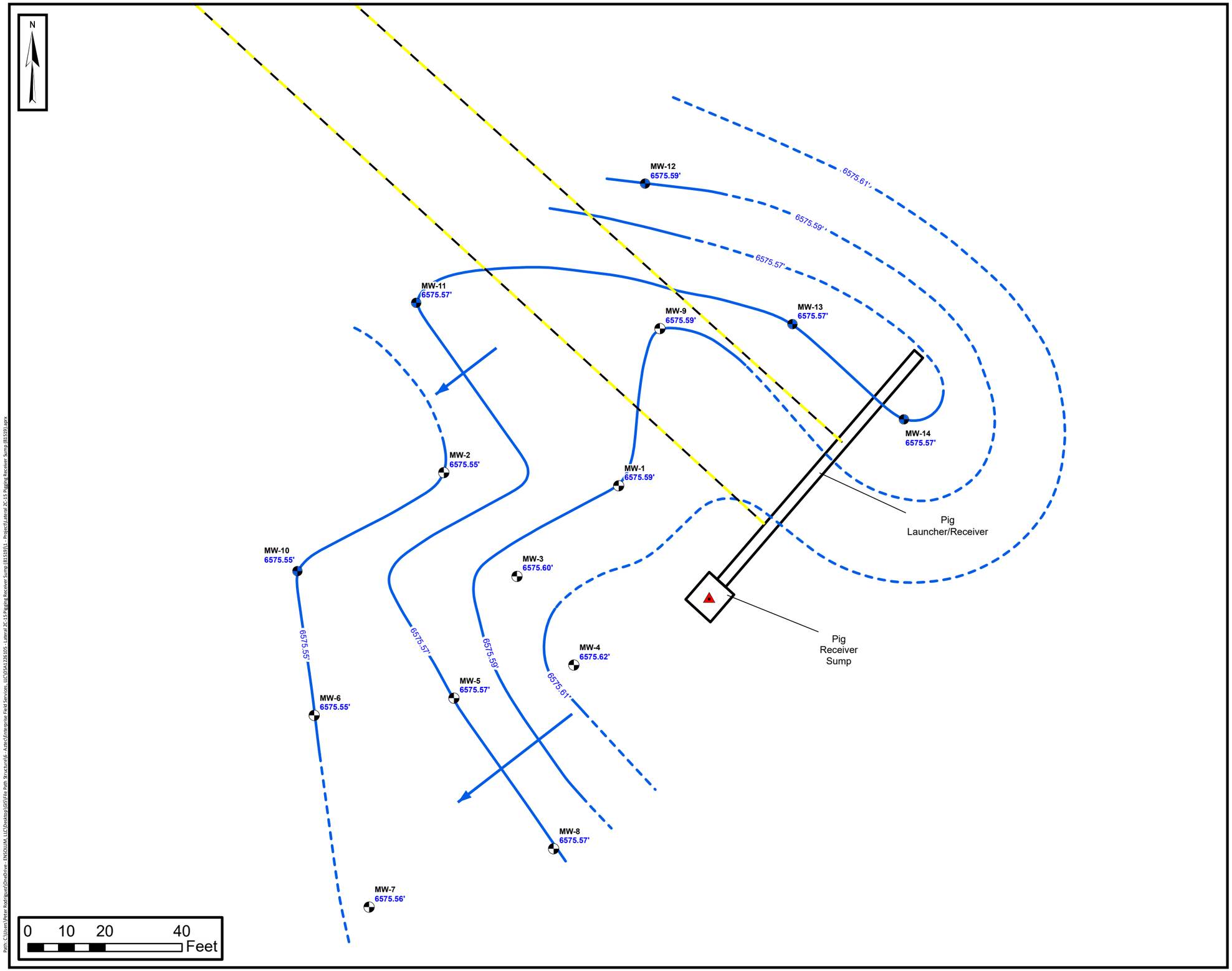

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GROUNDWATER GRADIENT MAP (JULY 2023)

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP
(8/15/19)
Unit Letter K, S27 T24N R5W
Rio Arriba County, New Mexico
36.282835, -107.351995

Figure

4C

Project Number: 05A1226105

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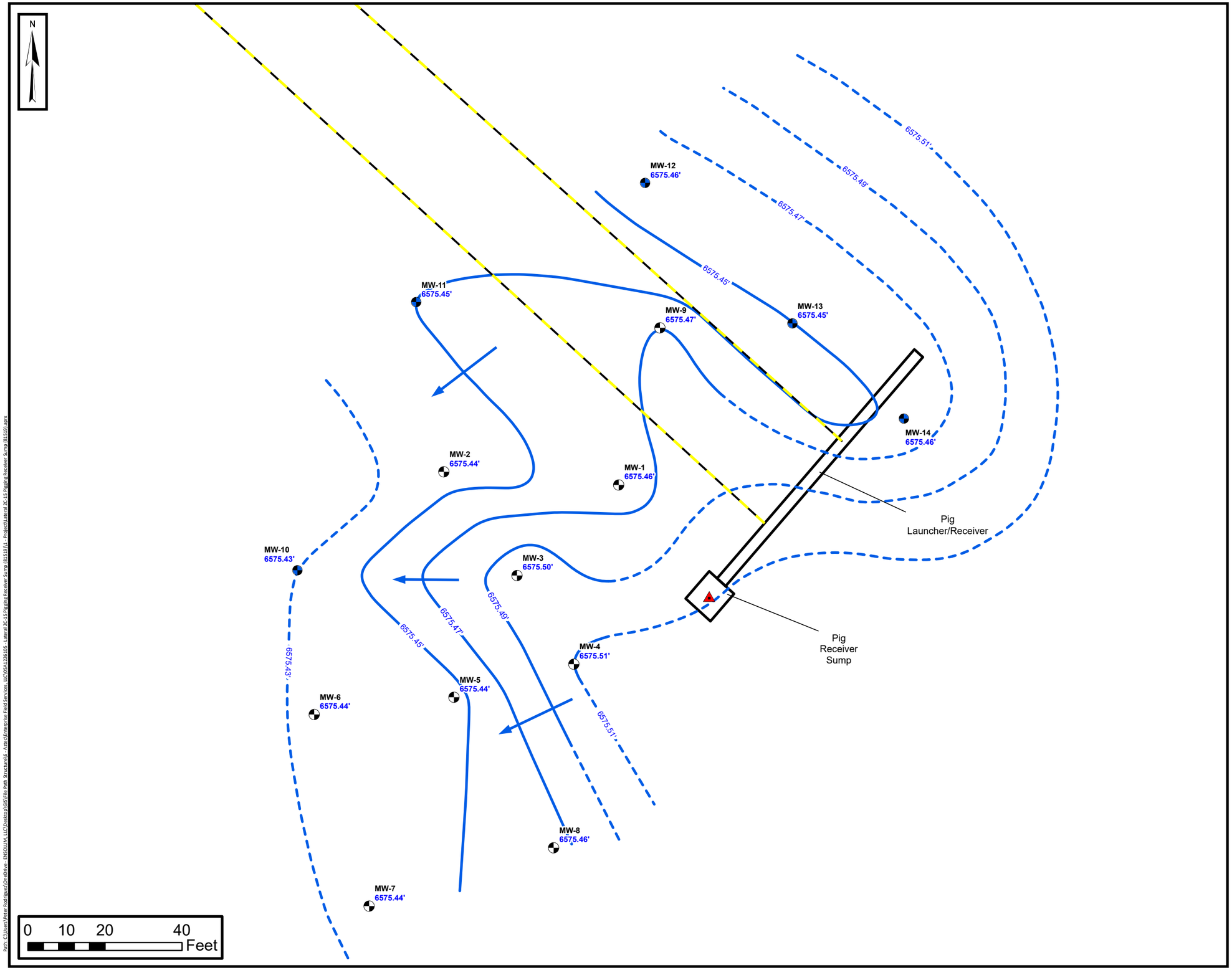


LEGEND

- Release Point
- Monitoring Well Location (Ensolum, 2022)
- Monitoring Well Location (Rule, 2019 & 2020)
- Groundwater Elevation Contour (Contour Interval = 0.02')
- Inferred Groundwater Elevation Contour
- Groundwater Flow Direction
- Approximate Pipeline Location

NOTE:
All groundwater elevations are in **blue** and listed in feet as measured at a set OPUS adjusted central point.

Monitoring well MW-1 was corrected for the presence of phase-separated hydrocarbon using an estimated product specific gravity of 0.825.

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

GROUNDWATER GRADIENT MAP (OCTOBER 2023)

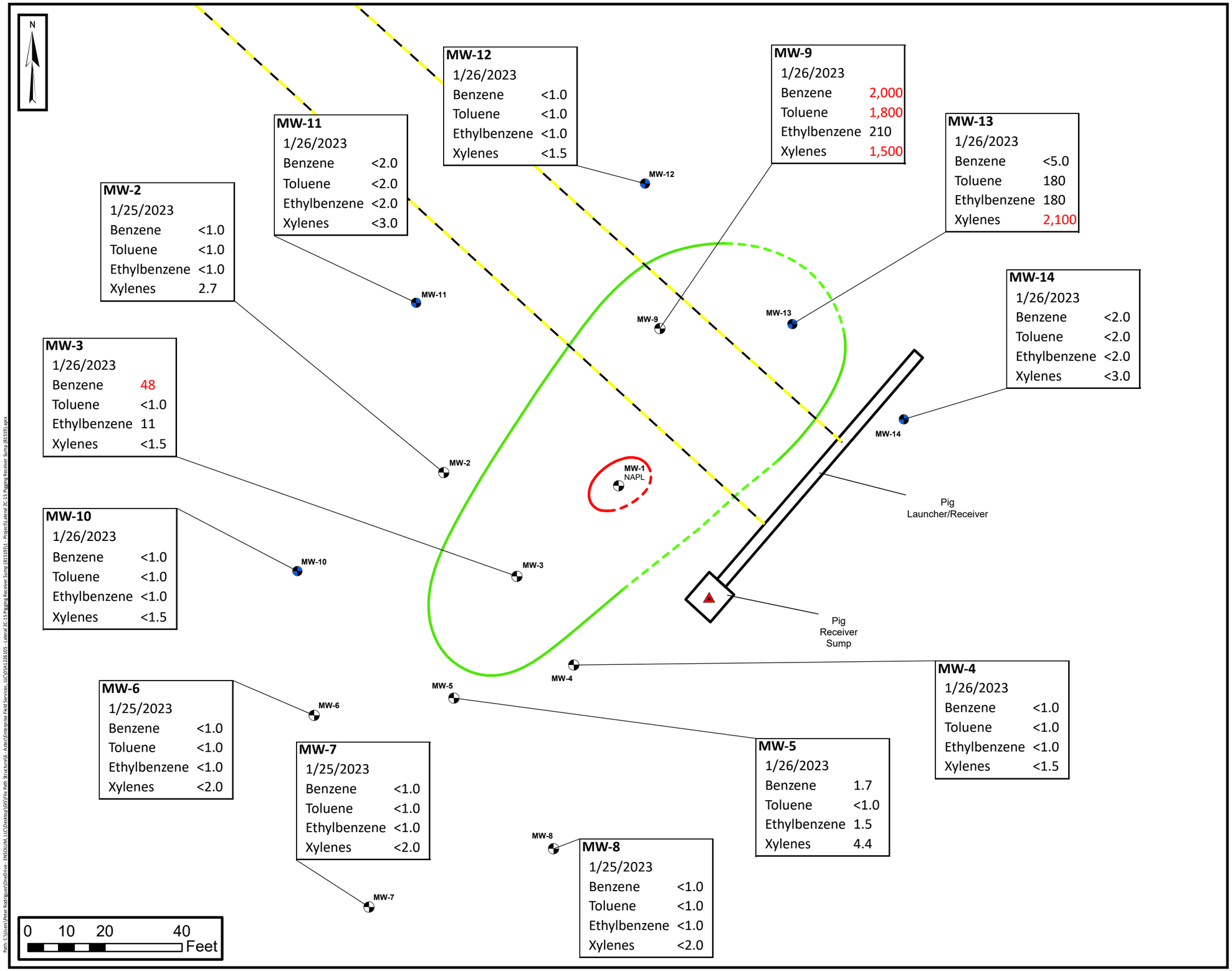
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP
(8/15/19)
Unit Letter K, S27 T24N R5W
San Juan County, New Mexico
36.282835, -107.351995

Figure

4D

Project Number: 05A1226105

Path: C:\Users\Peter.Rodriguez\OneDrive - ENSOLUM, LLC\Desktop\GIS\File Path Structure\E. Artesia\Enterprise Field Services, LLC\05A1226105 - Lateral 2C-15 Pigging Receiver Sump (8/15/19) - Project\Lateral 2C-15 Pigging Receiver Sump (8/15/19).aprx



LEGEND

- Release Point
- Monitoring Well Location (Ensolum, 2022)
- Monitoring Well Location (Rule, 2019 & 2020)
- Extent of GQS Exceedance Zone
- Inferred Extent of GQS Exceedance Zone
- Extent of NAPL Exceedance Zone
- Inferred Extent of NAPL Exceedance Zone
- Approximate Pipeline Location

NOTE:
Sample IDs in red exceed the New Mexico WQCC GQS.
Monitoring well MW-1 was corrected for the presence of phase-separated hyrdocarbon using an estimated product specific gravity of 0.825
All concentrations listed in µg/L
NAPL - non-aqueous phase liquid

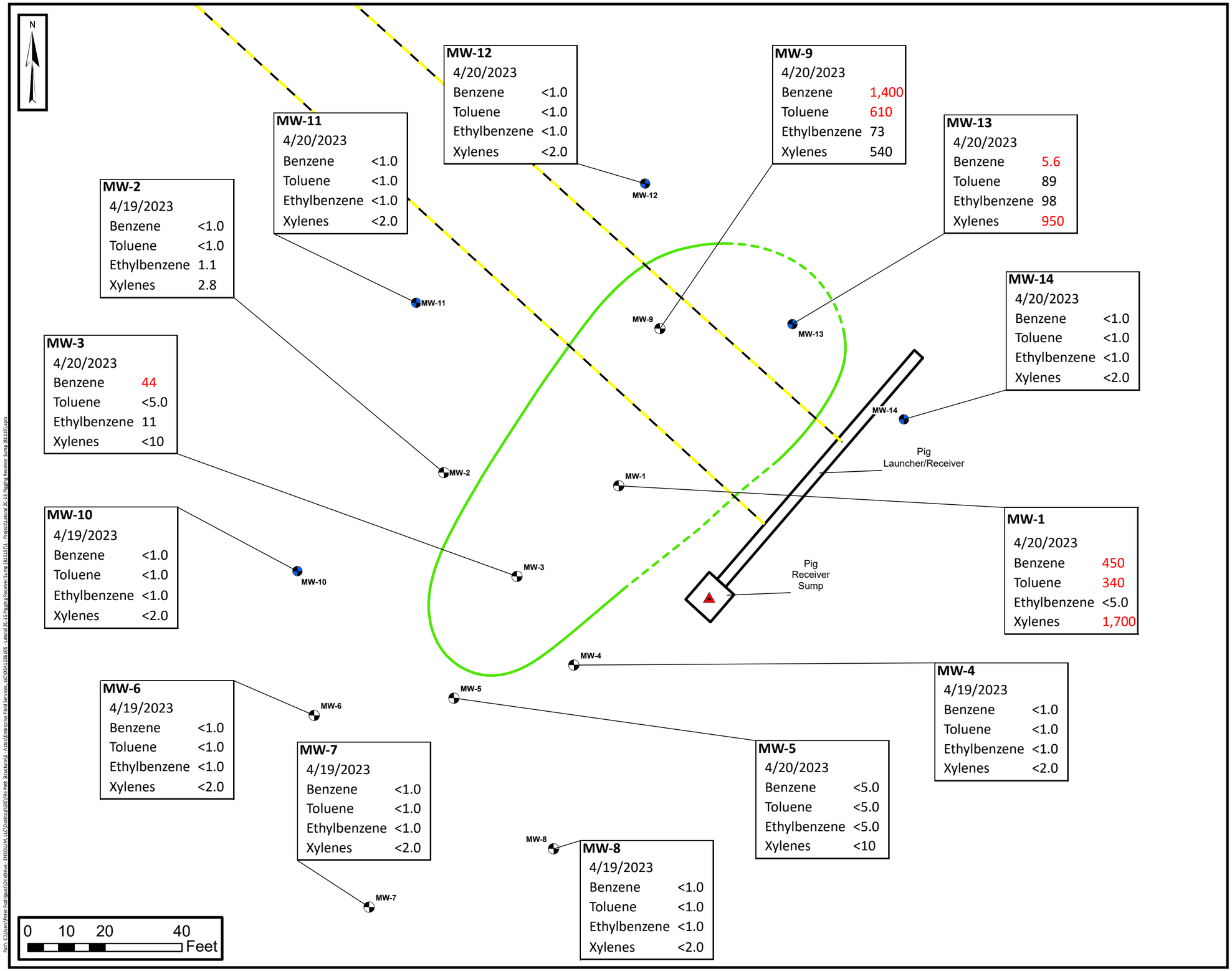
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

GROUNDWATER QUALITY STANDARD (GQS) EXCEEDANCE ZONE MAP (JANUARY 2023)
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP (8/15/19)
Unit Letter K, S27 T24N R5W
San Juan County, New Mexico
36.282835, -107.351995

Figure

5A

Project Number: 05A1226105



LEGEND

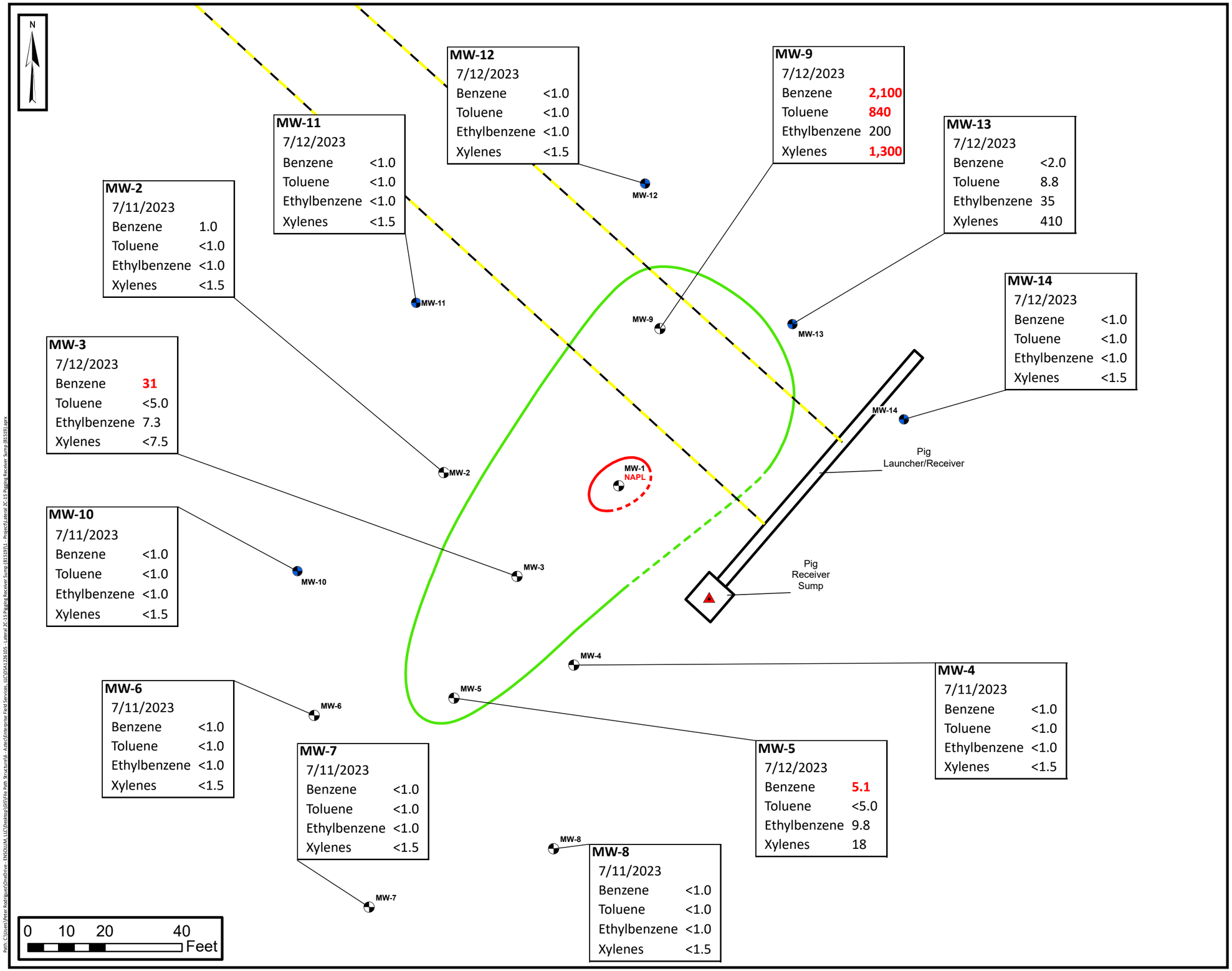
- Release Point
- Monitoring Well Location (Ensolum, 2022)
- Monitoring Well Location (Rule, 2019 & 2020)
- Extent of GQS Exceedance Zone
- Inferred Extent of GQS Exceedance Zone
- Approximate Pipeline Location

NOTE:
Sample IDs in red exceed the New Mexico WQCC GQS.
Monitoring well MW-1 was corrected for the presence of phase-separated hyrdocarbon using an estimated product specific gravity of 0.825
All concentrations listed in µg/L
NAPL - non-aqueous phase liquid

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

GROUNDWATER QUALITY STANDARD (GQS) EXCEEDANCE ZONE MAP (APRIL 2023)
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP (8/15/19)
Unit Letter K, S27 T24N R5W
San Juan County, New Mexico
36.282835, -107.351995

Figure
5B
Project Number: 05A1226105



LEGEND

- Release Point
- Monitoring Well Location (Ensolum, 2022)
- Monitoring Well Location (Rule, 2019 & 2020)
- Extent of GQS Exceedance Zone
- Inferred Extent of GQS Exceedance Zone
- Extent of NAPL Exceedance Zone
- Inferred Extent of NAPL Exceedance Zone
- Approximate Pipeline Location

NOTE:
Sample IDs in **red** exceed the New Mexico WQCC GQS.
Monitoring well MW-1 was corrected for the presence of phase-separated hydrocarbon using an estimated product specific gravity of 0.825
All concentrations are listed in micrograms per liter (µg/L)
NAPL - non-aqueous phase liquid

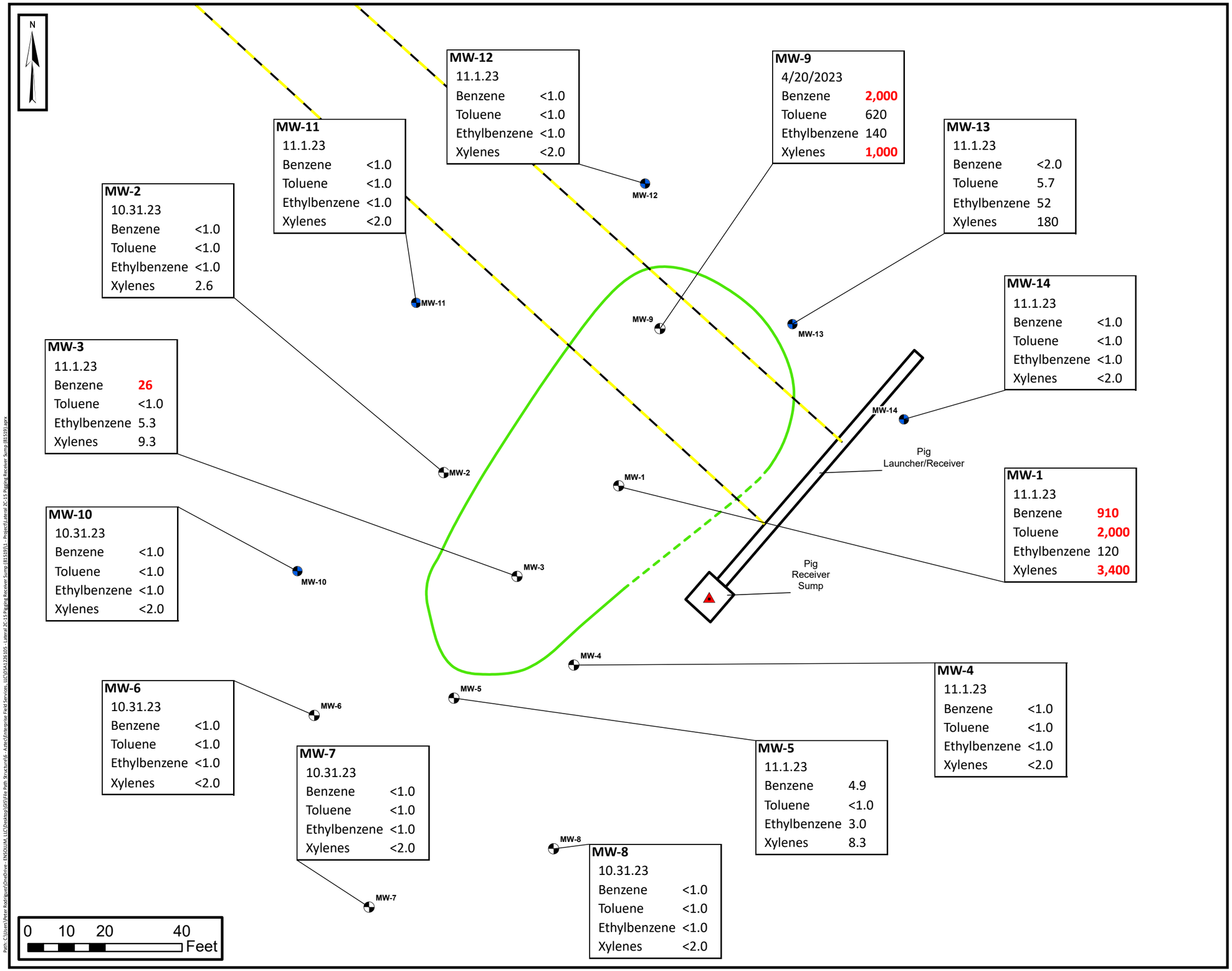
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

GROUNDWATER QUALITY STANDARD (GQS) EXCEEDANCE ZONE MAP
(July 2023)
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP
(8/15/19)
Unit Letter K, S27 T24N R5W
Rio Arriba County, New Mexico
36.282835, -107.351995

Figure

5C

Project Number: 05A1226105



LEGEND

- Release Point
- Monitoring Well Location (Ensolum, 2022)
- Monitoring Well Location (Rule, 2019 & 2020)
- Extent of GQS Exceedance Zone
- Inferred Extent of GQS Exceedance Zone
- Approximate Pipeline Location

NOTE:
Sample IDs in **red** exceed the New Mexico WQCC GQS.
Monitoring well MW-1 was corrected for the presence of phase-separated hyrdocarbon using an estimated product specific gravity of 0.825
All concentrations listed in µg/L
NAPL - non-aqueous phase liquid

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

GROUNDWATER QUALITY STANDARD (GQS) EXCEEDANCE ZONE MAP
(October / November 2023)
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP
(8/15/19)
Unit Letter K, S27 T24N R5W
San Juan County, New Mexico
36.282835, -107.351995

Figure

5D

Project Number: 05A1226105

ENSOLUM

APPENDIX B

Regulatory Correspondence

From:	Kyle Summers
To:	Landon Daniell
Cc:	Ranee Deechilly
Subject:	FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995
Date:	Wednesday, October 25, 2023 10:55:23 AM
Attachments:	image003.png image004.png image005.png

Kyle Summers
Principal
903-821-5603
Ensolum, LLC

From: Long, Thomas <tjlong@eprod.com>
Sent: Wednesday, October 25, 2023 10:54 AM
To: Yahoo Warning <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>; 'Velez, Nelson, EMNRD' <Nelson.Velez@state.nm.us>; Kyle Summers <ksummers@ensolum.com>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

[**EXTERNAL EMAIL**]

Keith,

This email is a notification that Enterprise will be sampling the groundwater monitoring wells at the Lateral 2C-15 pigging receiver beginning on Tuesday, October 25, 2023. Groundwater monitoring/sampling activities are anticipated to take two days. If you have any questions, please call or email.

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

Enterprise Products

From: Long, Thomas
Sent: Friday, July 7, 2023 7:19 AM
To: Yahoo Warning <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

This email is a notification that Enterprise will be sampling the groundwater monitoring wells at the Lateral 2C-15 pigging receiver beginning this Tuesday, July 11, 2023. Groundwater monitoring/sampling activities are anticipated to take two days. If you have any questions, please call or email.

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

Enterprise Products

From: Long, Thomas
Sent: Monday, April 17, 2023 11:56 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: 'Kyle Summers' <ksummers@ensolum.com>; Stone, Brian <bmstone@eprod.com>; 'Velez, Nelson, EMNRD' <Nelson.Velez@state.nm.us>
Subject: RE: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

This email is a notification that Enterprise will be sampling the groundwater monitoring wells at the Lateral 2C-15 pigging receiver beginning this Wednesday, April 20, 2023. Groundwater monitoring/sampling activities are anticipated to take two days. If you have any questions, please call or email.

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)

505-215-4727 (Cell)
tjlong@eprod.com

Enterprise Products

From: Yahoo Warning <kcmanwell@yahoo.com>
Sent: Monday, January 23, 2023 9:04 AM
To: Long, Thomas <tjlong@eprod.com>
Subject: Re: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

[Use caution with links/attachments]

Thank You Thomas,

For the information, I will not be available on Wednesday but will be there Thursday.

Thank You,
K.C. Manwell

On Monday, January 23, 2023, 08:50:16 AM MST, Long, Thomas <tjlong@eprod.com> wrote:

Keith,

This email is a notification that Enterprise will be sampling the groundwater monitoring wells at the Lateral 2C-15 pigging receiver beginning this Wednesday, January 25, 2023. Groundwater monitoring/sampling activities are anticipated to take two days. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

Enterprise Products

From: Yahoo Warning <kcmanwell@yahoo.com>
Sent: Tuesday, October 18, 2022 12:12 PM
To: Long, Thomas <tjlong@eprod.com>
Subject: Re: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

[Use caution with links/attachments]

Tom,

KC Manwell has planned on participation at proposed sampling event, thank you for the info.

Thnx KC Manwell

On Tuesday, October 18, 2022, 07:09:06 AM MDT, Long, Thomas <tjlong@eprod.com> wrote:

Keith,

This email is a notification that Enterprise will be performing groundwater monitoring/sampling activities at the Lateral 2C-15

Pigging Sump Release Site on Thursday October 20, 2022. Groundwater monitoring/sampling activities are anticipated to take two days. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

Enterprise Products

From: Long, Thomas
Sent: Thursday, August 25, 2022 7:37 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: 'Velez, Nelson, EMNRD' <Nelson.Velez@state.nm.us>; Stone, Brian <bmstone@eprod.com>; 'Kyle Summers' <ksummers@ensolum.com>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

This email is a notification that Enterprise will be installing soil borings and groundwater monitoring wells at the Lateral 2C-15 Pigging Receiver site beginning Monday, August 29, 2022. We will be hydro-excavating each soil boring and monitoring well location today to a depth of eight feet bgs to identify any underground utilities. We will potentially collect a soil samples from approximately five feet bgs during hydro-excavating activities today if you permit. If not, we will wait until Monday. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas
Sent: Monday, August 15, 2022 9:41 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

Please find the attached draft tables, figures and lab reports for the Lateral 2C-15 Pigging Receiver Sump groundwater sampling. Enterprise will be compiling all the data for a complete report that will be finalized in the near future. Also, we are on schedule to install more soil borings and monitoring wells for the week for August 29, 2022. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas
Sent: Tuesday, July 19, 2022 7:13 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>; 'Velez, Nelson, EMNRD' <Nelson.Velez@state.nm.us>
Cc: Kyle Summers <ksummers@ensolum.com>; Stone, Brian <bmstone@eprod.com>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

This email is a notification that Enterprise will be performing groundwater monitoring/sampling activities at the Lateral 2C-15

Pigging Sump Release Site on Thursday July, 21, 2022. Groundwater monitoring/sampling activities are anticipated to take one day. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

Enterprise Products

From: Long, Thomas
Sent: Monday, January 24, 2022 7:57 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: 'Velez, Nelson, EMNRD' <Nelson.Velez@state.nm.us>; Stone, Brian <bmstone@eprod.com>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R

5W; 36.282835, -107.351995

Keith,

This email is a notification that Enterprise will be conduct quarterly groundwater sampling at the Lateral 2C-15 Pigging Sump Release Site tomorrow. Sampling activities are anticipated to take one day. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Yahoo Warning <kcmanwell@yahoo.com>
Sent: Tuesday, October 26, 2021 9:28 AM
To: Long, Thomas <tjlong@eprod.com>
Subject: Re: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

[Use caution with links/attachments]

Thomas Long,

Enterprise should continue with proposed sampling event.

K.C. Manwell

On Tuesday, October 26, 2021, 07:14:11 AM MDT, Long, Thomas <tjlong@eprod.com> wrote:

Keith,

May we proceed with the sampling event or should we reschedule?

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

Enterprise Products

From: Yahoo Warning <kcmanwell@yahoo.com>
Sent: Monday, October 25, 2021 4:06 PM
To: Long, Thomas <tjlong@eprod.com>
Subject: Re: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K Section 27 T 24N R 5W; 36.282835, -107.351995

[Use caution with links/attachments]

Thomas Long,

I have prior commitments on proposed groundwater sampling dates.

K.C. Manwell

On Monday, October 25, 2021, 01:17:51 PM MDT, Long, Thomas <tjlong@eprod.com> wrote:

Keith,

This email is a notification that Enterprise will be conducting groundwater monitoring activities at the Lateral 2C-15 pigging receiver on Thursday, October 28, 2021. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas

Sent: Wednesday, July 7, 2021 1:46 PM
To: Yahoo Warning <kcmanwell@yahoo.com>
Cc: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>; Stone, Brian <bmstone@eprod.com>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K B Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

This email is to notify you that Enterprise will be groundwater monitoring and sampling at the Lateral 2C-15 Pigging Sump Release site beginning July 9, 2021 at approximately 9:00 a.m. It is anticipated to take one day to complete the sampling activities. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

Enterprise Products

From: Long, Thomas
Sent: Monday, June 21, 2021 2:19 PM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K B Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

Please find the attached draft tables, figures and lab reports for the Lateral 2C-15 Pigging Receiver Sump groundwater sampling. Entperise will be compiling all the data for a complete report that will be finalized in the near future. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas
Sent: Monday, April 19, 2021 9:45 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>; Stone, Brian <bmstone@eprod.com>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K B Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

This email is to notify you that Enterprise will be groundwater monitoring and sampling at the Lateral 2C-15 Pigging Sump Release site beginning April 21, 2021 at approximately 9:00 a.m. It is anticipated to take one day to complete the sampling activities. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas
Sent: Tuesday, February 2, 2021 7:23 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K B Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

Please find the attached draft table and figures for the Lateral 2C-15 Pigging Receiver Sump groundwater sampling. Entperise will be compiling all this data for a complete report that will be finalized in the near future. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas
Sent: Monday, January 11, 2021 8:50 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Subject: FW: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K B Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

This email is to notify you that Enterprise will be groundwater monitoring and sampling at the Lateral 2C-15 Pigging Sump Release site beginning tomorrow January 12, 2021 at approximately 9:00 a.m. It is anticipated to take one day to complete the sampling activities. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas
Sent: Tuesday, October 13, 2020 7:20 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K B Section 27 T 24N R 5W; 36.282835, -107.351995

Keith,

I believe they will be onsite about 9:00 a.m. for sampling.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Yahoo Warning <kcmanwell@yahoo.com>
Sent: Monday, October 12, 2020 11:20 PM
To: Long, Thomas <tjlong@eprod.com>
Subject: [EXTERNAL] Re: Lateral 2C-15 Pigging Sump Release Site - UL K B Section 27 T 24N R 5W; 36.282835, -107.351995

[Use caution with links/attachments]

Thank You for the quick response per our conversation on October 12, 2020 Aztec location, I plan to be available for proposed sampling on October 15, 2020. Is there an approximate time The personnel plan to be at the sampling site?

Thank You,

K.C. Manwell, Environmental Specialist

Jicarilla Apache Nation Environmental Protection Office

505-330-8031

On Monday, October 12, 2020, 02:21:13 PM MDT, Long, Thomas <tjlong@eprod.com> wrote:

Keith,

This email is to notify you that Entperise will be re-developing the groundwater monitoring wells at the Lateral 2C-15 Pigging Sump Release Site on Wednesday, October 14, 2020 and the re-sampling the wells on October 15, 2020. If you have any questions, please all or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas
Sent: Thursday, May 28, 2020 8:39 AM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Subject: FW: Lateral 2C-15 Pigging Sump Release Site

Cory,

Just an FYI, we are sampling this again today. Jicarilla will be onsite.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

From: Long, Thomas
Sent: Wednesday, May 27, 2020 12:51 PM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>; Timmerman, Chad <CTimmerman@eprod.com>; Dixon, Dwayne (dwdixon@eprod.com) <dwdixon@eprod.com>
Subject: Lateral 2C-15 Pigging Sump Release Site

Keith,

As per conversations with Area 300 Superintendent, Chad Timmerman, please find the attached

preliminary information for the Lateral 2C-15 pigging sump release site. Rule Engineering is still compiling the complete corrective action report and will finalize it in the near future. They will have the site maps formally drafted by tomorrow. I will send you those maps once I receive them. Enterprise has a contractor that will be resampling all the wells tomorrow May 28, 2020 and will continue sampling on a quarterly basis. If you have any questions, please call or email.

Thomas J. Long

Senior Environmental Scientist

Enterprise Products Company

614 Reilly Ave.

Farmington, New Mexico 87401

505-599-2286 (office)

505-215-4727 (Cell)

tjlong@eprod.com

Enterprise Products

ENSOLUM

APPENDIX C

Tables

ENSOLUM

TABLE 1
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commmission Groundwater Quality Standards		5	1,000	700	620
Monitoring Wells Installed by Rule Engineering, LLC					
MW-1	12.20.19	**900**	**3,100**	150	**2,000**
	5.28.20	**1,600**	**9,000**	300	**5,100**
	10.15.20	**NAPL**			
	1.12.21	**NAPL**			
	4.21.21	**NAPL**			
	7.9.21	**NAPL**			
	10.28.21	**NAPL**			
	1.25.22	**NAPL**			
	5.3.22	**NAPL**			
	7.21.22	**NAPL**			
	10.20.22	**NAPL**			
	1.25.23	**NAPL**			
	4.20.23	**450**	340	<5.0	**1,700**
	7.11.23	**NAPL**			
	11.1.23	**910**	**2,000**	120	**3,400**
MW-2	12.21.19	<2.0	<2.0	<2.0	390
	5.28.20	<1.0	<1.0	<1.0	1.7
	10.15.20	<1.0	<1.0	<1.0	63
	1.12.21	<1.0	<1.0	<1.0	2.3
	4.21.21	2.8	<1.0	<1.0	4.4
	7.9.21	3.5	<1.0	1.4	5.7
	10.28.21	<1.0	<1.0	1.3	5.8
	1.25.22	<1.0	<1.0	<1.0	<1.5
	5.3.22	<1.0	<1.0	<1.0	<1.5
	7.21.22	<1.0	<1.0	<1.0	<1.5
	10.20.22	1.2	<1.0	<1.0	<1.5
	1.25.23	<1.0	<1.0	<1.0	2.7
	4.19.23	<1.0	<1.0	1.1	2.8
	7.11.23	1.0	<1.0	<1.0	<1.5
	10.31.23	<1.0	<1.0	<1.0	2.6
MW-3	12.22.19	**1,200**	130	180	**870**
	5.28.20	**460**	<25	56	<50
	10.15.20	**480**	<5.0	60	<7.5
	1.12.21	**280**	<5.0	42	<10
	4.21.21	**140**	<5.0	27	<10
	7.9.21	**110**	<1.0	26	10
	10.28.21	**89**	<1.0	17	7.2
	1.25.22	**72**	<1.0	14	<1.5
	5.3.22	**72**	<2.0	15	<3.0
	7.21.22	**47**	<4.0	9.9	<8.0
	10.21.22	**58**	<1.0	12	2.5
	1.26.23	**48**	<1.0	11	<1.5
	4.20.23	**44**	<5.0	11	<10
	7.12.23	**31**	<5.0	7.3	<7.5
	11.1.23	**26**	<1.0	5.3	9.3

ENSOLUM

TABLE 1
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commmission Groundwater Quality Standards		5	1,000	700	620
MW-4	12.23.19	3.3	1.2	4.4	3.0
	5.28.20	<1.0	<1.0	<1.0	<1.5
	10.15.20	1.1	<1.0	3.0	<1.5
	1.12.21	<1.0	<1.0	1.1	<2.0
	4.21.21	1.6	<1.0	<1.0	<2.0
	7.9.21	1.9	<1.0	<1.0	<2.0
	10.28.21	<1.0	<1.0	<1.0	<2.0
	1.25.22	<1.0	<1.0	<1.0	<1.5
	5.3.22	<1.0	<1.0	<1.0	<1.5
	7.21.22	<1.0	<1.0	<1.0	<1.5
	10.20.22	<1.0	<1.0	<1.0	<1.5
	1.26.23	<1.0	<1.0	<1.0	<1.5
	4.19.23	<1.0	<1.0	<1.0	<2.0
	7.11.23	<1.0	<1.0	<1.0	<1.5
	11.1.23	<1.0	<1.0	<1.0	<2.0
MW-5	12.24.19	**270**	9.7	56	530
	5.28.20	**110**	<10	21	<15
	10.15.20	**110**	<5.0	16	45
	1.12.21	**110**	<5.0	13	<10
	4.21.21	**120**	<5.0	12	<10
	7.9.21	**150**	<1.0	23	56
	10.28.21	**56**	<1.0	6.0	5.9
	1.25.22	**53**	<1.0	1.5	<1.5
	5.3.22	**32**	<2.0	2.7	5.8
	7.21.22	**17**	<4.0	6.9	14
	10.21.22	**6.0**	<1.0	2.3	6.2
	1.26.23	1.7	<1.0	1.5	4.4
	4.20.23	<5.0	<5.0	<5.0	<10
	7.12.23	**5.1**	<5.0	9.8	18
	11.1.23	4.9	<1.0	3.0	8.3

ENSOLUM

TABLE 1
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commmission Groundwater Quality Standards		5	1,000	700	620
MW-6	3.05.20	<1.0	<1.0	<1.0	<2.0
	5.28.20	<1.0	<1.0	<1.0	<1.5
	10.15.20	<1.0	<1.0	<1.0	<1.5
	1.12.21	<1.0	<1.0	<1.0	<2.0
	4.21.21	<1.0	<1.0	<1.0	<2.0
	7.9.21	<1.0	<1.0	<1.0	<2.0
	10.28.21	<1.0	<1.0	<1.0	<2.0
	1.25.22	<1.0	<1.0	<1.0	<1.5
	5.3.22	<1.0	<1.0	<1.0	<1.5
	7.21.22	<1.0	<1.0	<1.0	<1.5
	10.20.22	<1.0	<1.0	<1.0	<1.5
	1.25.23	<1.0	<1.0	<1.0	<2.0
	4.19.23	<1.0	<1.0	<1.0	<2.0
	7.11.23	<1.0	<1.0	<1.0	<1.5
	10.31.23	<1.0	<1.0	<1.0	<2.0
MW-7	3.05.20	2.9	19	48	**750**
	5.28.20	<1.0	<1.0	<1.0	<1.5
	10.15.20	<1.0	<1.0	1.1	19
	1.12.21	<1.0	<1.0	<1.0	<2.0
	4.21.21	<1.0	<1.0	<1.0	<2.0
	7.9.21	<1.0	<1.0	<1.0	<2.0
	10.28.21	<1.0	<1.0	<1.0	<2.0
	1.25.22	<1.0	<1.0	<1.0	<1.5
	5.3.22	<1.0	<1.0	<1.0	<1.5
	7.21.22	<1.0	<1.0	<1.0	<1.5
	10.20.22	<1.0	<1.0	<1.0	<1.5
	1.25.23	<1.0	<1.0	<1.0	<2.0
	4.19.23	<1.0	<1.0	<1.0	<2.0
	7.11.23	<1.0	<1.0	<1.0	<1.5
	10.31.23	<1.0	<1.0	<1.0	<2.0
MW-8	3.05.20	<1.0	<1.0	<1.0	<2.0
	5.28.20	<1.0	<1.0	<1.0	<1.5
	10.15.20	<1.0	<1.0	<1.0	<1.5
	1.12.21	<1.0	<1.0	<1.0	<2.0
	4.21.21	<1.0	<1.0	<1.0	<2.0
	7.9.21	<1.0	<1.0	<1.0	<2.0
	10.28.21	<1.0	<1.0	<1.0	<2.0
	1.25.22	<1.0	<1.0	<1.0	<1.5
	5.3.22	<1.0	<1.0	<1.0	<1.5
	7.21.22	<1.0	<1.0	<1.0	<1.5
	10.20.22	<1.0	<1.0	<1.0	<1.5
	1.25.23	<1.0	<1.0	<1.0	<2.0
	4.19.23	<1.0	<1.0	<1.0	<2.0
	7.11.23	<1.0	<1.0	<1.0	<1.5
	10.31.23	<1.0	<1.0	<1.0	<2.0

ENSOLUM

TABLE 1
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commmission Groundwater Quality Standards		5	1,000	700	620
MW-9	3.05.20	**490**	860	65	**680**
	5.28.20	**900**	72	65	320
	10.15.20	**1,100**	**1,000**	110	**660**
	1.12.21	**1,800**	**2,300**	160	**1,200**
	4.21.21	**1,800**	**2,400**	170	**1,200**
	7.9.21	**2,000**	**2,600**	160	**1,300**
	10.28.21	**2,000**	**2,800**	170	**1,400**
	1.25.22	**1,900**	**2,300**	160	**1,200**
	5.3.22	**1,900**	**2,400**	160	**1,200**
	7.21.22	**2,100**	**2,400**	150	**1,100**
	10.21.22	**49**	57	3.9	30
	1.26.23	**2,000**	**1,800**	210	**1,500**
	4.20.23	**1,400**	610	73	540
	7.12.23	**2,100**	840	200	**1,300**
	11.1.23	**2,000**	620	140	**1,000**
MW-10	10.20.22	<1.0	<1.0	<1.0	<1.5
	1.26.23	<1.0	<1.0	<1.0	<1.5
	4.19.23	<1.0	<1.0	<1.0	<2.0
	7.11.23	<1.0	<1.0	<1.0	<1.5
	10.31.23	<1.0	<1.0	<1.0	<2.0
MW-11	10.21.22	<2.0	<2.0	<2.0	<3.0
	1.26.23	<2.0	<2.0	<2.0	<3.0
	4.20.23	<1.0	<1.0	<1.0	<2.0
	7.12.23	<1.0	<1.0	<1.0	<1.5
	11.1.23	<1.0	<1.0	<1.0	<2.0
MW-12	10.21.22	<1.0	<1.0	<1.0	<1.5
	1.26.23	<1.0	<1.0	<1.0	<1.5
	4.20.23	<1.0	<1.0	<1.0	<2.0
	7.12.23	<1.0	<1.0	<1.0	<1.5
	11.1.23	<1.0	<1.0	<1.0	<2.0
MW-13	10.21.22	<10	490	300	**2,800**
	1.26.23	<5.0	180	180	**2,100**
	4.20.23	**5.6**	89	98	**950**
	7.12.23	<2.0	8.8	35	410
	11.1.23	<2.0	5.7	52	180
MW-14	10.21.22	<2.0	<2.0	<2.0	<3.0
	1.26.23	<2.0	<2.0	<2.0	<3.0
	4.20.23	<1.0	<1.0	<1.0	<2.0
	7.12.23	<1.0	<1.0	<1.0	<1.5
	11.1.23	<1.0	<1.0	<1.0	<2.0

*Note: Concentrations in **bold** and yellow exceed the applicable WQCC GQS*

Monitoring wells were sampled by Ensolum, LLC beginning May 2020

NAPL = Non-Aqueous Phase Liquid

µg/L = microgram per liter

<1.0 = the numeral (in this case "1.0") identifies the laboratory PQL or RL

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TABLE 2
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
GROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	Total Well Depth (feet BTOC)	Screen Interval (feet BTOC)	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)
MW-1	5.28.20	ND	24.32	ND	30	15-30	6599.87	
	8.18.20	24.52	24.83	0.31			6599.87	6575.30
	10.14.20	24.56	24.76	0.20			6599.87	6575.28
	1.27.21	24.44	24.54	0.10			6599.87	6575.41
	4.21.21	24.35	24.45	0.10			6599.87	6575.50
	7.9.21	24.42	24.71	0.29			6599.87	6575.40
	10.28.21	24.45	24.68	0.23			6599.87	6575.38
	1.25.22	24.36	24.44	0.08			6599.87	6575.50
	5.3.22	24.30	24.34	0.04			6599.87	6575.56
	7.21.22	24.41	24.64	0.23			6599.87	6575.42
	10.20.22	24.39	24.52	0.13			6599.87	6575.46
	1.25.23	24.28	24.30	0.02			6599.87	6575.59
	4.19.23	ND	24.20	ND			6599.87	6575.67
	7.11.23	24.28	24.29	0.01			6599.87	6575.59
	10.31.23	ND	24.41	ND			6599.87	6575.46
MW-2	5.28.20	ND	26.71	ND	32.65	17.65-32.65	6602.17	6575.46
	8.18.20	ND	26.91	ND			6602.17	6575.26
	10.14.20	ND	26.91	ND			6602.17	6575.26
	1.27.21	ND	26.76	ND			6602.17	6575.41
	4.21.21	ND	26.69	ND			6602.17	6575.48
	7.9.21	ND	26.82	ND			6602.17	6575.35
	10.28.21	ND	26.84	ND			6602.17	6575.33
	1.25.22	ND	26.70	ND			6602.17	6575.47
	5.3.22	ND	26.64	ND			6602.17	6575.53
	7.21.22	ND	26.78	ND			6602.17	6575.39
	10.20.22	ND	26.74	ND			6602.17	6575.43
	1.25.23	ND	26.60	ND			6602.17	6575.57
	4.19.23	ND	26.52	ND			6602.17	6575.65
	7.11.23	ND	26.62	ND			6602.17	6575.55
	10.31.23	ND	26.73	ND			6602.17	6575.44
MW-3	5.28.20	ND	26.20	ND	32.67	17.67-32.67	6601.65	6575.45
	8.18.20	ND	26.39	ND			6601.65	6575.26
	10.14.20	ND	26.37	ND			6601.65	6575.28
	1.27.21	ND	26.23	ND			6601.65	6575.42
	4.21.21	ND	26.15	ND			6601.65	6575.50
	7.9.21	ND	26.27	ND			6601.65	6575.38
	10.28.21	ND	26.30	ND			6601.65	6575.35
	1.25.22	ND	26.15	ND			6601.65	6575.50
	5.3.22	ND	26.08	ND			6601.65	6575.57
	7.21.22	ND	26.22	ND			6601.65	6575.43
	10.20.22	ND	26.18	ND			6601.65	6575.47
	1.25.23	ND	26.04	ND			6601.65	6575.61
	4.19.23	ND	25.94	ND			6601.65	6575.71
	7.11.23	ND	26.05	ND			6601.65	6575.60
	10.31.23	ND	26.15	ND			6601.65	6575.50

ENSOLUM

TABLE 2
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
GROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	Total Well Depth (feet BTOC)	Screen Interval (feet BTOC)	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)
MW-4	5.28.20	ND	25.17	ND	32.27	17.27-32.27	6600.64	6575.47
	8.18.20	ND	25.36	ND			6600.64	6575.28
	10.14.20	ND	25.36	ND			6600.64	6575.28
	1.27.21	ND	25.19	ND			6600.64	6575.45
	4.21.21	ND	25.13	ND			6600.64	6575.51
	7.9.21	ND	25.25	ND			6600.64	6575.39
	10.28.21	ND	25.26	ND			6600.64	6575.38
	1.25.22	ND	25.13	ND			6600.64	6575.51
	5.3.22	ND	25.06	ND			6600.64	6575.58
	7.21.22	ND	25.20	ND			6600.64	6575.44
	10.20.22	ND	25.16	ND			6600.64	6575.48
	1.25.23	ND	25.01	ND			6600.64	6575.63
	4.19.23	ND	24.92	ND			6600.64	6575.72
	7.11.23	ND	25.02	ND			6600.64	6575.62
	10.31.23	ND	25.13	ND			6600.64	6575.51
MW-5	5.28.20	ND	25.24	ND	32.76	17.76-32.76	6600.71	6575.47
	8.18.20	ND	25.44	ND			6600.71	6575.27
	10.14.20	ND	25.44	ND			6600.71	6575.27
	1.27.21	ND	25.29	ND			6600.71	6575.42
	4.21.21	ND	25.23	ND			6600.71	6575.48
	7.9.21	ND	25.35	ND			6600.71	6575.36
	10.28.21	ND	25.38	ND			6600.71	6575.33
	1.25.22	ND	25.23	ND			6600.71	6575.48
	5.3.22	ND	25.17	ND			6600.71	6575.54
	7.21.22	ND	25.31	ND			6600.71	6575.40
	10.20.22	ND	25.28	ND			6600.71	6575.43
	1.25.23	ND	25.13	ND			6600.71	6575.58
	4.19.23	ND	25.05	ND			6600.71	6575.66
	7.11.23	ND	25.14	ND			6600.71	6575.57
	10.31.23	ND	25.27	ND			6600.71	6575.44
MW-6	5.28.20	ND	25.61	ND	28.53	13.53-28.53	6601.06	6575.45
	8.18.20	ND	25.80	ND			6601.06	6575.26
	10.14.20	ND	25.96	ND			6601.06	6575.10
	1.27.21	ND	25.65	ND			6601.06	6575.41
	4.21.21	ND	25.60	ND			6601.06	6575.46
	7.9.21	ND	25.71	ND			6601.06	6575.35
	10.28.21	ND	25.73	ND			6601.06	6575.33
	1.25.22	ND	25.61	ND			6601.06	6575.45
	5.3.22	ND	25.53	ND			6601.06	6575.53
	7.21.22	ND	25.67	ND			6601.06	6575.39
	10.20.22	ND	25.63	ND			6601.06	6575.43
	1.25.23	ND	25.49	ND			6601.06	6575.57
	4.19.23	ND	25.41	ND			6601.06	6575.65
	7.11.23	ND	25.51	ND			6601.06	6575.55
	10.31.23	ND	25.62	ND			6601.06	6575.44

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TABLE 2
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
GROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	Total Well Depth (feet BTOC)	Screen Interval (feet BTOC)	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)
MW-7	5.28.20	ND	24.37	ND	28.94	13.94-28.94	6599.83	6575.46
	8.18.20	ND	24.57	ND			6599.83	6575.26
	10.14.20	ND	24.90	ND			6599.83	6574.93
	1.27.21	ND	24.42	ND			6599.83	6575.41
	4.21.21	ND	24.36	ND			6599.83	6575.47
	7.9.21	ND	24.43	ND			6599.83	6575.40
	10.28.21	ND	24.49	ND			6599.83	6575.34
	1.25.22	ND	24.37	ND			6599.83	6575.46
	5.3.22	ND	24.31	ND			6599.83	6575.52
	7.21.22	ND	24.44	ND			6599.83	6575.39
	10.20.22	ND	24.40	ND			6599.83	6575.43
	1.25.23	ND	24.27	ND			6599.83	6575.56
	4.19.23	ND	24.18	ND			6599.83	6575.65
	7.11.23	ND	24.27	ND			6599.83	6575.56
	10.31.23	ND	24.39	ND			6599.83	6575.44
MW-8	5.28.20	ND	23.55	ND	29.03	14.03-29.03	6599.02	6575.47
	8.18.20	ND	23.74	ND			6599.02	6575.28
	10.14.20	ND	23.76	ND			6599.02	6575.26
	1.27.21	ND	23.69	ND			6599.02	6575.33
	4.21.21	ND	23.53	ND			6599.02	6575.49
	7.9.21	ND	23.65	ND			6599.02	6575.37
	10.28.21	ND	23.66	ND			6599.02	6575.36
	1.25.22	ND	23.54	ND			6599.02	6575.48
	5.3.22	ND	23.48	ND			6599.02	6575.54
	7.21.22	ND	23.61	ND			6599.02	6575.41
	10.20.22	ND	23.57	ND			6599.02	6575.45
	1.25.23	ND	23.45	ND			6599.02	6575.57
	4.19.23	ND	23.35	ND			6599.02	6575.67
	7.11.23	ND	23.45	ND			6599.02	6575.57
	10.31.23	ND	23.56	ND			6599.02	6575.46
MW-9	5.28.20	ND	26.15	ND	31	16-31	6601.63	6575.48
	8.18.20	ND	26.33	ND			6601.63	6575.30
	10.14.20	ND	26.34	ND			6601.63	6575.29
	1.27.21	ND	26.19	ND			6601.63	6575.44
	4.21.21	ND	26.12	ND			6601.63	6575.51
	7.9.21	ND	26.24	ND			6601.63	6575.39
	10.28.21	ND	26.27	ND			6601.63	6575.36
	1.22.22	ND	26.13	ND			6601.63	6575.50
	5.3.22	ND	26.07	ND			6601.63	6575.56
	7.21.22	ND	26.20	ND			6601.63	6575.43
	10.20.22	ND	26.17	ND			6601.63	6575.46
	1.25.23	ND	26.03	ND			6601.63	6575.60
	4.19.23	ND	25.95	ND			6601.63	6575.68
	7.11.23	ND	26.04	ND			6601.63	6575.59
	10.31.23	ND	26.16	ND			6601.63	6575.47

ENSOLUM

TABLE 2
Lateral 2C-15 Pigging Receiver Sump (8/15/19)
GROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	Total Well Depth (feet BTOC)	Screen Interval (feet BTOC)	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)
MW-10	10.20.22	ND	26.30	ND	32.84	17.84-32.84	6601.72	6575.42
	1.25.23	ND	26.16	ND			6601.72	6575.56
	4.19.23	ND	26.08	ND			6601.72	6575.64
	7.11.23	ND	26.17	ND			6601.72	6575.55
	10.31.23	ND	26.29	ND			6601.72	6575.43
MW-11	10.20.22	ND	27.66	ND	32.86	17.86-32.86	6603.10	6575.44
	1.25.23	ND	27.53	ND			6603.10	6575.57
	4.19.23	ND	27.45	ND			6603.10	6575.65
	7.11.23	ND	27.53	ND			6603.10	6575.57
	10.31.23	ND	27.65	ND			6603.10	6575.45
MW-12	10.20.22	ND	26.07	ND	30	15-30	6601.54	6575.47
	1.25.23	ND	25.95	ND			6601.54	6575.59
	4.19.23	ND	25.86	ND			6601.54	6575.68
	7.11.23	ND	25.95	ND			6601.54	6575.59
	10.31.23	ND	26.08	ND			6601.54	6575.46
MW-13	10.20.22	ND	26.12	ND	32.5	17.5-32.5	6601.56	6575.44
	1.25.23	ND	25.98	ND			6601.56	6575.58
	4.19.23	ND	25.90	ND			6601.56	6575.66
	7.11.23	ND	25.99	ND			6601.56	6575.57
	10.31.23	ND	26.11	ND			6601.56	6575.45
MW-14	10.20.22	ND	26.05	ND	32	17-32	6601.50	6575.45
	1.25.23	ND	25.91	ND			6601.50	6575.59
	4.19.23	ND	25.82	ND			6601.50	6575.68
	7.11.23	ND	25.93	ND			6601.50	6575.57
	10.31.23	ND	26.04	ND			6601.50	6575.46

Notes:

** - corrected for presence of phase-sepated hydrocarbon using an estimated product specific gravity of 0.825*

Monitoring wells surveyed July 30, 2020

BTOC - below top of casing

AMSL - above mean sea level

TOC - top of casing

ENSOLUM

APPENDIX D

Laboratory Data Sheets & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 06, 2023

Kyle Summers
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C 15 Sump OrderNo.: 2301998

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/26/2023 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 **2301998**
Date Reported: **2/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-8
Project: Lateral 2C 15 Sump **Collection Date:** 1/25/2023 12:45:00 PM
Lab ID: 2301998-001 **Matrix:** AQUEOUS **Received Date:** 1/26/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	1/31/2023 5:11:00 PM	BW9429
Toluene	ND	1.0		µg/L	1	1/31/2023 5:11:00 PM	BW9429
Ethylbenzene	ND	1.0		µg/L	1	1/31/2023 5:11:00 PM	BW9429
Xylenes, Total	ND	2.0		µg/L	1	1/31/2023 5:11:00 PM	BW9429
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	1/31/2023 5:11:00 PM	BW9429

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 **2301998**
Date Reported: **2/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-7
Project: Lateral 2C 15 Sump **Collection Date:** 1/25/2023 1:25:00 PM
Lab ID: 2301998-002 **Matrix:** AQUEOUS **Received Date:** 1/26/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	1/31/2023 5:30:00 PM	BW9429
Toluene	ND	1.0		µg/L	1	1/31/2023 5:30:00 PM	BW9429
Ethylbenzene	ND	1.0		µg/L	1	1/31/2023 5:30:00 PM	BW9429
Xylenes, Total	ND	2.0		µg/L	1	1/31/2023 5:30:00 PM	BW9429
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	1/31/2023 5:30:00 PM	BW9429

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 **2301998**
Date Reported: **2/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-6
Project: Lateral 2C 15 Sump **Collection Date:** 1/25/2023 2:00:00 PM
Lab ID: 2301998-003 **Matrix:** AQUEOUS **Received Date:** 1/26/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	1/31/2023 5:50:00 PM	BW9429
Toluene	ND	1.0		µg/L	1	1/31/2023 5:50:00 PM	BW9429
Ethylbenzene	ND	1.0		µg/L	1	1/31/2023 5:50:00 PM	BW9429
Xylenes, Total	ND	2.0		µg/L	1	1/31/2023 5:50:00 PM	BW9429
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	1/31/2023 5:50:00 PM	BW9429

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 **2301998**
Date Reported: **2/6/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-2
Project: Lateral 2C 15 Sump **Collection Date:** 1/25/2023 2:35:00 PM
Lab ID: 2301998-004 **Matrix:** AQUEOUS **Received Date:** 1/26/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	1/31/2023 6:10:00 PM	BW9429
Toluene	ND	1.0		µg/L	1	1/31/2023 6:10:00 PM	BW9429
Ethylbenzene	ND	1.0		µg/L	1	1/31/2023 6:10:00 PM	BW9429
Xylenes, Total	2.7	2.0		µg/L	1	1/31/2023 6:10:00 PM	BW9429
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	1/31/2023 6:10:00 PM	BW9429

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#: **2301998**

06-Feb-23

Client: ENSOLUM

Project: Lateral 2C 15 Sump

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **BW94291**	RunNo: **94291**
Prep Date:	Analysis Date: **1/31/2023**	SeqNo: **3406501** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		102	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **BW94291**	RunNo: **94291**
Prep Date:	Analysis Date: **1/31/2023**	SeqNo: **3406502** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	20	1.0	20.00	0	97.8	70	130			
Ethylbenzene	20	1.0	20.00	0	99.0	70	130			
Xylenes, Total	59	2.0	60.00	0	99.0	70	130			
Surr: 4-Bromofluorobenzene	21		20.00		105	70	130			

Sample ID: **2301998-001ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-8**	Batch ID: **BW94291**	RunNo: **94291**
Prep Date:	Analysis Date: **1/31/2023**	SeqNo: **3406868** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	20	1.0	20.00	0	99.7	70	130			
Ethylbenzene	20	1.0	20.00	0	101	70	130			
Xylenes, Total	62	2.0	60.00	0	103	70	130			
Surr: 4-Bromofluorobenzene	21		20.00		107	70	130			

Sample ID: **2301998-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-8**	Batch ID: **BW94291**	RunNo: **94291**
Prep Date:	Analysis Date: **1/31/2023**	SeqNo: **3406869** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.3	70	130	4.99	20	
Toluene	19	1.0	20.00	0	95.0	70	130	4.80	20	
Ethylbenzene	19	1.0	20.00	0	96.0	70	130	4.65	20	
Xylenes, Total	59	2.0	60.00	0	98.8	70	130	4.26	20	
Surr: 4-Bromofluorobenzene	22		20.00		109	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2301998 RcptNo: 1

Received By: Juan Rojas 1/26/2023 7:10:00 AM

Completed By: Tracy Casarrubias 1/26/2023 9:58:50 AM

Reviewed By: KPC 1.26.23

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: JH 1-26-23

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

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

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: Ksummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Lateral 2C-15 Sump

Project #: 05A1226105

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ~~☐ Yes~~ ☐ No 1/26/23

# of Coolers: 1 Hey, Marty

Cooler Temp (Including CF): 0.3+0.3 (°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. 2301998	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)
1/25/23	12:45	W	MW-8	3x40mL VOA Hg	$HgCl_2$	001	X									
1/25/23	13:25	W	MW-7			002	X									
1/25/23	14:00	W	MW-6			003	X									
1/25/23	14:35	W	MW-2			004	X									

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
1/25/23	1627				1/25/23	1627
1/25/23	1811			Courier	1/26/23	7:10

Remarks: Bill to Ensolum

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: www.hallenvironmental.com

February 03, 2023

Kyle Summers
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C15 Sump OrderNo.: 2301A57

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 9 sample(s) on 1/27/2023 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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-10
Project: Lateral 2C15 Sump
Collection Date: 1/26/2023 10:40:00 AM
Lab ID: 2301A57-001 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	1/31/2023 7:52:45 PM	SL94317
Toluene	ND	1.0		µg/L	1	1/31/2023 7:52:45 PM	SL94317
Ethylbenzene	ND	1.0		µg/L	1	1/31/2023 7:52:45 PM	SL94317
Xylenes, Total	ND	1.5		µg/L	1	1/31/2023 7:52:45 PM	SL94317
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	1/31/2023 7:52:45 PM	SL94317
Surr: Dibromofluoromethane	103	70-130		%Rec	1	1/31/2023 7:52:45 PM	SL94317
Surr: Toluene-d8	106	70-130		%Rec	1	1/31/2023 7:52:45 PM	SL94317

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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-4
Project: Lateral 2C15 Sump **Collection Date:** 1/26/2023 11:20:00 AM
Lab ID: 2301A57-002 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	1/31/2023 9:14:12 PM	SL94317
Toluene	ND	1.0		µg/L	1	1/31/2023 9:14:12 PM	SL94317
Ethylbenzene	ND	1.0		µg/L	1	1/31/2023 9:14:12 PM	SL94317
Xylenes, Total	ND	1.5		µg/L	1	1/31/2023 9:14:12 PM	SL94317
Surr: 1,2-Dichloroethane-d4	130	70-130		%Rec	1	1/31/2023 9:14:12 PM	SL94317
Surr: Dibromofluoromethane	98.6	70-130		%Rec	1	1/31/2023 9:14:12 PM	SL94317
Surr: Toluene-d8	106	70-130		%Rec	1	1/31/2023 9:14:12 PM	SL94317

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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-11
Project: Lateral 2C15 Sump **Collection Date:** 1/26/2023 11:50:00 AM
Lab ID: 2301A57-003 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	2.0	D	µg/L	2	1/31/2023 9:41:20 PM	SL94317
Toluene	ND	2.0	D	µg/L	2	1/31/2023 9:41:20 PM	SL94317
Ethylbenzene	ND	2.0	D	µg/L	2	1/31/2023 9:41:20 PM	SL94317
Xylenes, Total	ND	3.0	D	µg/L	2	1/31/2023 9:41:20 PM	SL94317
Surr: 1,2-Dichloroethane-d4	105	70-130	D	%Rec	2	1/31/2023 9:41:20 PM	SL94317
Surr: Dibromofluoromethane	104	70-130	D	%Rec	2	1/31/2023 9:41:20 PM	SL94317
Surr: Toluene-d8	101	70-130	D	%Rec	2	1/31/2023 9:41:20 PM	SL94317

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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-12
Project: Lateral 2C15 Sump **Collection Date:** 1/26/2023 12:20:00 PM
Lab ID: 2301A57-004 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	1.0		µg/L	1	1/31/2023 10:08:26 PM	SL94317
Toluene	ND	1.0		µg/L	1	1/31/2023 10:08:26 PM	SL94317
Ethylbenzene	ND	1.0		µg/L	1	1/31/2023 10:08:26 PM	SL94317
Xylenes, Total	ND	1.5		µg/L	1	1/31/2023 10:08:26 PM	SL94317
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	1/31/2023 10:08:26 PM	SL94317
Surr: Dibromofluoromethane	97.9	70-130		%Rec	1	1/31/2023 10:08:26 PM	SL94317
Surr: Toluene-d8	101	70-130		%Rec	1	1/31/2023 10:08:26 PM	SL94317

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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-14
Project: Lateral 2C15 Sump **Collection Date:** 1/26/2023 1:15:00 PM
Lab ID: 2301A57-005 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	2.0	D	µg/L	2	1/31/2023 10:35:32 PM	SL94317
Toluene	ND	2.0	D	µg/L	2	1/31/2023 10:35:32 PM	SL94317
Ethylbenzene	ND	2.0	D	µg/L	2	1/31/2023 10:35:32 PM	SL94317
Xylenes, Total	ND	3.0	D	µg/L	2	1/31/2023 10:35:32 PM	SL94317
Surr: 1,2-Dichloroethane-d4	113	70-130	D	%Rec	2	1/31/2023 10:35:32 PM	SL94317
Surr: Dibromofluoromethane	107	70-130	D	%Rec	2	1/31/2023 10:35:32 PM	SL94317
Surr: Toluene-d8	101	70-130	D	%Rec	2	1/31/2023 10:35:32 PM	SL94317

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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-13
Project: Lateral 2C15 Sump
Collection Date: 1/26/2023 1:50:00 PM
Lab ID: 2301A57-006 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	5.0	D	µg/L	10	1/31/2023 11:29:40 PM	SL94317
Toluene	180	10	D	µg/L	10	1/31/2023 11:29:40 PM	SL94317
Ethylbenzene	180	10	D	µg/L	10	1/31/2023 11:29:40 PM	SL94317
Xylenes, Total	2100	15	D	µg/L	10	1/31/2023 11:29:40 PM	SL94317
Surr: 1,2-Dichloroethane-d4	112	70-130	D	%Rec	10	1/31/2023 11:29:40 PM	SL94317
Surr: Dibromofluoromethane	85.9	70-130	D	%Rec	10	1/31/2023 11:29:40 PM	SL94317
Surr: Toluene-d8	108	70-130	D	%Rec	10	1/31/2023 11:29:40 PM	SL94317

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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-5
Project: Lateral 2C15 Sump **Collection Date:** 1/26/2023 2:30:00 PM
Lab ID: 2301A57-007 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	1.7	1.0		µg/L	1	1/31/2023 11:56:41 PM	SL94317
Toluene	ND	1.0		µg/L	1	1/31/2023 11:56:41 PM	SL94317
Ethylbenzene	1.5	1.0		µg/L	1	1/31/2023 11:56:41 PM	SL94317
Xylenes, Total	4.4	1.5		µg/L	1	1/31/2023 11:56:41 PM	SL94317
Surr: 1,2-Dichloroethane-d4	119	70-130		%Rec	1	1/31/2023 11:56:41 PM	SL94317
Surr: Dibromofluoromethane	94.8	70-130		%Rec	1	1/31/2023 11:56:41 PM	SL94317
Surr: Toluene-d8	108	70-130		%Rec	1	1/31/2023 11:56:41 PM	SL94317

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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-3
Project: Lateral 2C15 Sump
Collection Date: 1/26/2023 3:00:00 PM
Lab ID: 2301A57-008 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	48	1.0		µg/L	1	2/1/2023 12:23:39 AM	SL94317
Toluene	ND	1.0		µg/L	1	2/1/2023 12:23:39 AM	SL94317
Ethylbenzene	11	1.0		µg/L	1	2/1/2023 12:23:39 AM	SL94317
Xylenes, Total	ND	1.5		µg/L	1	2/1/2023 12:23:39 AM	SL94317
Surr: 1,2-Dichloroethane-d4	114	70-130		%Rec	1	2/1/2023 12:23:39 AM	SL94317
Surr: Dibromofluoromethane	100	70-130		%Rec	1	2/1/2023 12:23:39 AM	SL94317
Surr: Toluene-d8	108	70-130		%Rec	1	2/1/2023 12:23:39 AM	SL94317

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 **2301A57**
Date Reported: **2/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-9
Project: Lateral 2C15 Sump **Collection Date:** 1/26/2023 3:30:00 PM
Lab ID: 2301A57-009 **Matrix:** AQUEOUS **Received Date:** 1/27/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	2000	100		µg/L	100	2/1/2023 11:10:49 AM	SL94339
Toluene	1800	100		µg/L	100	2/1/2023 11:10:49 AM	SL94339
Ethylbenzene	210	100		µg/L	100	2/1/2023 11:10:49 AM	SL94339
Xylenes, Total	1500	150		µg/L	100	2/1/2023 11:10:49 AM	SL94339
Surr: 1,2-Dichloroethane-d4	91.5	70-130		%Rec	100	2/1/2023 11:10:49 AM	SL94339
Surr: Dibromofluoromethane	101	70-130		%Rec	100	2/1/2023 11:10:49 AM	SL94339
Surr: Toluene-d8	103	70-130		%Rec	100	2/1/2023 11:10:49 AM	SL94339

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#: **2301A57**

03-Feb-23

Client: ENSOLUM

Project: Lateral 2C15 Sump

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **SL94317**	RunNo: **94317**
Prep Date:	Analysis Date: **1/31/2023**	SeqNo: **3406742** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.6	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.8		10.00		97.7	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL94317**	RunNo: **94317**
Prep Date:	Analysis Date: **1/31/2023**	SeqNo: **3406745** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: **2301a57-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW-10**	Batch ID: **SL94317**	RunNo: **94317**
Prep Date:	Analysis Date: **1/31/2023**	SeqNo: **3406824** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.3	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.7		10.00		96.7	70	130			

Sample ID: **2301a57-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW-10**	Batch ID: **SL94317**	RunNo: **94317**
Prep Date:	Analysis Date: **1/31/2023**	SeqNo: **3406825** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.6	70	130	7.78	20	
Toluene	21	1.0	20.00	0	103	70	130	1.03	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A57**

03-Feb-23

Client: ENSOLUM

Project: Lateral 2C15 Sump

Sample ID: **2301a57-001a msd** SampType: **MSD** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **MW-10** Batch ID: **SL94317** RunNo: **94317**

Prep Date: Analysis Date: **1/31/2023** SeqNo: **3406825** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130	0	0	
Surr: Dibromofluoromethane	9.8		10.00		98.3	70	130	0	0	
Surr: Toluene-d8	10		10.00		103	70	130	0	0	

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **LCSW** Batch ID: **SL94339** RunNo: **94339**

Prep Date: Analysis Date: **2/1/2023** SeqNo: **3407686** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.9	70	130			
Toluene	22	1.0	20.00	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**

Client ID: **PBW** Batch ID: **SL94339** RunNo: **94339**

Prep Date: Analysis Date: **2/1/2023** SeqNo: **3407689** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		114	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		112	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM | Work Order Number: 2301A57 | RcptNo: 1

Received By: Tracy Casarrubias 1/27/2023 6:30:00 AM

Completed By: Tracy Casarrubias 1/27/2023 10:33:38 AM

Reviewed By: KPA 1.27.23

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: JM 1/27/23

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	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A

Phone #:

email or Fax#: KSummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Lateral 2C-15 Sump

Project #: 05A1226105

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☒ Yes ☐ No 4oz

# of Coolers: 1

Cooler Temp(Including CF): 0.3-0.3=0 (°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. 2301457
1/26/23	10:40	W	MW-10	3x 40mL VOA	HCl	001
1/26/23	11:20	W	MW-4			002
1/26/23	11:50	W	MW-11			003
1/26/23	12:20	W	MW-12			004
1/26/23	13:15	W	MW-14			005
1/26/23	~~13:50~~ 13:30 DUP	W	MW-13			006
1/26/23	14:30	W	MW-5			007
1/26/23	15:00	W	MW-3			008
1/26/23	15:30	W	MW-9			009

Analysis Request

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)
X									
X									
X									
X									
X									
X									
X									
X									
X									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1/26/23	1705				1/26/23	1705
1/26/23	1742				1/27/23	6:30

Remarks: Bill to Ensolum

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: www.hallenvironmental.com

April 25, 2023

Kyle Summers
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C 15 Sump OrderNo.: 2304869

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/20/2023 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 **2304869**
Date Reported: **4/25/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-8
Project: Lateral 2C 15 Sump
Collection Date: 4/19/2023 9:50:00 AM
Lab ID: 2304869-001 **Matrix:** AQUEOUS **Received Date:** 4/20/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/21/2023 6:53:00 PM	BW9622
Toluene	ND	1.0		µg/L	1	4/21/2023 6:53:00 PM	BW9622
Ethylbenzene	ND	1.0		µg/L	1	4/21/2023 6:53:00 PM	BW9622
Xylenes, Total	ND	2.0		µg/L	1	4/21/2023 6:53:00 PM	BW9622
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	4/21/2023 6:53:00 PM	BW9622

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 **2304869**
Date Reported: **4/25/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-7
Project: Lateral 2C 15 Sump
Collection Date: 4/19/2023 10:20:00 AM
Lab ID: 2304869-002
Matrix: AQUEOUS
Received Date: 4/20/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/21/2023 7:15:00 PM	BW9622
Toluene	ND	1.0		µg/L	1	4/21/2023 7:15:00 PM	BW9622
Ethylbenzene	ND	1.0		µg/L	1	4/21/2023 7:15:00 PM	BW9622
Xylenes, Total	ND	2.0		µg/L	1	4/21/2023 7:15:00 PM	BW9622
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	1	4/21/2023 7:15:00 PM	BW9622

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 **2304869**
Date Reported: **4/25/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-6
Project: Lateral 2C 15 Sump **Collection Date:** 4/19/2023 10:45:00 AM
Lab ID: 2304869-003 **Matrix:** AQUEOUS **Received Date:** 4/20/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/21/2023 7:36:00 PM	BW9622
Toluene	ND	1.0		µg/L	1	4/21/2023 7:36:00 PM	BW9622
Ethylbenzene	ND	1.0		µg/L	1	4/21/2023 7:36:00 PM	BW9622
Xylenes, Total	ND	2.0		µg/L	1	4/21/2023 7:36:00 PM	BW9622
Surr: 4-Bromofluorobenzene	95.0	70-130		%Rec	1	4/21/2023 7:36:00 PM	BW9622

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 **2304869**
Date Reported: **4/25/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-10
Project: Lateral 2C 15 Sump
Collection Date: 4/19/2023 11:20:00 AM
Lab ID: 2304869-004 **Matrix:** AQUEOUS **Received Date:** 4/20/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/21/2023 7:58:00 PM	BW9622
Toluene	ND	1.0		µg/L	1	4/21/2023 7:58:00 PM	BW9622
Ethylbenzene	ND	1.0		µg/L	1	4/21/2023 7:58:00 PM	BW9622
Xylenes, Total	ND	2.0		µg/L	1	4/21/2023 7:58:00 PM	BW9622
Surr: 4-Bromofluorobenzene	94.7	70-130		%Rec	1	4/21/2023 7:58:00 PM	BW9622

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 **2304869**
Date Reported: **4/25/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-2
Project: Lateral 2C 15 Sump
Collection Date: 4/19/2023 11:50:00 AM
Lab ID: 2304869-005 **Matrix:** AQUEOUS **Received Date:** 4/20/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/21/2023 8:19:00 PM	BW9622
Toluene	ND	1.0		µg/L	1	4/21/2023 8:19:00 PM	BW9622
Ethylbenzene	1.1	1.0		µg/L	1	4/21/2023 8:19:00 PM	BW9622
Xylenes, Total	2.8	2.0		µg/L	1	4/21/2023 8:19:00 PM	BW9622
Surr: 4-Bromofluorobenzene	98.3	70-130		%Rec	1	4/21/2023 8:19:00 PM	BW9622

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 **2304869**
Date Reported: **4/25/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-4
Project: Lateral 2C 15 Sump **Collection Date:** 4/19/2023 12:45:00 PM
Lab ID: 2304869-006 **Matrix:** AQUEOUS **Received Date:** 4/20/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	4/21/2023 8:41:00 PM	BW9622
Toluene	ND	1.0		µg/L	1	4/21/2023 8:41:00 PM	BW9622
Ethylbenzene	ND	1.0		µg/L	1	4/21/2023 8:41:00 PM	BW9622
Xylenes, Total	ND	2.0		µg/L	1	4/21/2023 8:41:00 PM	BW9622
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	1	4/21/2023 8:41:00 PM	BW9622

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#: **2304869**

25-Apr-23

Client: ENSOLUM

Project: Lateral 2C 15 Sump

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **BW96225**	RunNo: **96225**
Prep Date:	Analysis Date: **4/21/2023**	SeqNo: **3485440** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.1	70	130			
Toluene	20	1.0	20.00	0	99.2	70	130			
Ethylbenzene	20	1.0	20.00	0	99.2	70	130			
Xylenes, Total	60	2.0	60.00	0	99.4	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		97.9	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **BW96225**	RunNo: **96225**
Prep Date:	Analysis Date: **4/21/2023**	SeqNo: **3485441** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		95.2	70	130			

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

Hall Environmental Analysis Laboratory
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: ENSOLUM | Work Order Number: 2304869 | RcptNo: 1

Received By: Tracy Casarrubias 4/20/2023 6:30:00 AM

Completed By: Tracy Casarrubias 4/20/2023 10:16:40 AM

Reviewed By: JH 4-20-23

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: MP 4/20/23

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: Phone number missing on COC- TMC 4/20/23

16. Additional remarks: Sample MP 4/20/23

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.4	Good	Yes	Morty		

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: Ksummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Lateral 2C-15 Sump

Project #: 05A1226105

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☒ Yes ☐ No Marty

# of Coolers: 1

Cooler Temp(Including CF): 4.4 - 0 = 4.4 (°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. 2304869	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)
4/19/23	9:50	GW	MW-8	3x40mL VOA	HgCl2	001	X									
4/19/23	10:20	GW	MW-7			002	X									
4/19/23	10:45	GW	MW-6			003	X									
4/19/23	11:20	GW	MW-10			004	X									
4/19/23	11:50	GW	MW-2			005	X									
4/19/23	12:45	GW	MW-4	3x40mL VOA	HgCl2	006	X									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/19/23	1515				4/19/23	1515
4/19/23	1820	Chris Walls		Courier	4/20/23	6:30

Remarks: Bill to Ensolum

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: www.hallenvironmental.com

April 28, 2023

Kyle Summers
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C 15 Sump OrderNo.: 2304931

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/21/2023 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 **2304931**
Date Reported: **4/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-11
Project: Lateral 2C 15 Sump **Collection Date:** 4/20/2023 9:50:00 AM
Lab ID: 2304931-001 **Matrix:** AQUEOUS **Received Date:** 4/21/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	1.0		µg/L	1	4/26/2023 5:47:02 PM	BW9631
Toluene	ND	1.0		µg/L	1	4/26/2023 5:47:02 PM	BW9631
Ethylbenzene	ND	1.0		µg/L	1	4/26/2023 5:47:02 PM	BW9631
Xylenes, Total	ND	2.0		µg/L	1	4/26/2023 5:47:02 PM	BW9631
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	4/26/2023 5:47:02 PM	BW9631

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 **2304931**
Date Reported: **4/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-12
Project: Lateral 2C 15 Sump **Collection Date:** 4/20/2023 10:35:00 AM
Lab ID: 2304931-002 **Matrix:** AQUEOUS **Received Date:** 4/21/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	1.0		µg/L	1	4/26/2023 6:10:18 PM	BW9631
Toluene	ND	1.0		µg/L	1	4/26/2023 6:10:18 PM	BW9631
Ethylbenzene	ND	1.0		µg/L	1	4/26/2023 6:10:18 PM	BW9631
Xylenes, Total	ND	2.0		µg/L	1	4/26/2023 6:10:18 PM	BW9631
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	4/26/2023 6:10:18 PM	BW9631

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 **2304931**
Date Reported: **4/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-14
Project: Lateral 2C 15 Sump **Collection Date:** 4/20/2023 11:10:00 AM
Lab ID: 2304931-003 **Matrix:** AQUEOUS **Received Date:** 4/21/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	1.0		µg/L	1	4/26/2023 6:33:39 PM	BW9631
Toluene	ND	1.0		µg/L	1	4/26/2023 6:33:39 PM	BW9631
Ethylbenzene	ND	1.0		µg/L	1	4/26/2023 6:33:39 PM	BW9631
Xylenes, Total	ND	2.0		µg/L	1	4/26/2023 6:33:39 PM	BW9631
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	4/26/2023 6:33:39 PM	BW9631

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 **2304931**
Date Reported: **4/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-13
Project: Lateral 2C 15 Sump
Collection Date: 4/20/2023 11:45:00 AM
Lab ID: 2304931-004 **Matrix:** AQUEOUS **Received Date:** 4/21/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	5.6	2.0		µg/L	2	4/26/2023 6:57:16 PM	BW9631
Toluene	89	2.0		µg/L	2	4/26/2023 6:57:16 PM	BW9631
Ethylbenzene	98	2.0		µg/L	2	4/26/2023 6:57:16 PM	BW9631
Xylenes, Total	950	40		µg/L	20	4/28/2023 1:39:51 AM	BW9631
Surr: 4-Bromofluorobenzene	162	70-130	S	%Rec	2	4/26/2023 6:57:16 PM	BW9631

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 **2304931**
Date Reported: **4/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-5
Project: Lateral 2C 15 Sump
Collection Date: 4/20/2023 12:15:00 PM
Lab ID: 2304931-005 **Matrix:** AQUEOUS **Received Date:** 4/21/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	5.0		µg/L	5	4/26/2023 7:20:51 PM	BW9631
Toluene	ND	5.0		µg/L	5	4/26/2023 7:20:51 PM	BW9631
Ethylbenzene	ND	5.0		µg/L	5	4/26/2023 7:20:51 PM	BW9631
Xylenes, Total	ND	10		µg/L	5	4/26/2023 7:20:51 PM	BW9631
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	5	4/26/2023 7:20:51 PM	BW9631

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 **2304931**
Date Reported: **4/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-3
Project: Lateral 2C 15 Sump **Collection Date:** 4/20/2023 12:45:00 PM
Lab ID: 2304931-006 **Matrix:** AQUEOUS **Received Date:** 4/21/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	44	5.0		µg/L	5	4/26/2023 7:44:26 PM	BW9631
Toluene	ND	5.0		µg/L	5	4/26/2023 7:44:26 PM	BW9631
Ethylbenzene	11	5.0		µg/L	5	4/26/2023 7:44:26 PM	BW9631
Xylenes, Total	ND	10		µg/L	5	4/26/2023 7:44:26 PM	BW9631
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	5	4/26/2023 7:44:26 PM	BW9631

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 **2304931**
Date Reported: **4/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-9
Project: Lateral 2C 15 Sump **Collection Date:** 4/20/2023 1:25:00 PM
Lab ID: 2304931-007 **Matrix:** AQUEOUS **Received Date:** 4/21/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	1400	100		µg/L	100	4/26/2023 8:07:58 PM	BW9631
Toluene	610	100		µg/L	100	4/26/2023 8:07:58 PM	BW9631
Ethylbenzene	73	20		µg/L	20	4/28/2023 2:03:11 AM	BW9631
Xylenes, Total	540	200		µg/L	100	4/26/2023 8:07:58 PM	BW9631
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	100	4/26/2023 8:07:58 PM	BW9631

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 **2304931**
Date Reported: **4/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-1
Project: Lateral 2C 15 Sump **Collection Date:** 4/20/2023 2:00:00 PM
Lab ID: 2304931-008 **Matrix:** AQUEOUS **Received Date:** 4/21/2023 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	450	5.0		µg/L	5	4/26/2023 8:31:33 PM	BW9631
Toluene	340	5.0		µg/L	5	4/26/2023 8:31:33 PM	BW9631
Ethylbenzene	ND	5.0		µg/L	5	4/26/2023 8:31:33 PM	BW9631
Xylenes, Total	1700	100		µg/L	50	4/28/2023 2:49:50 AM	BW9631
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	5	4/26/2023 8:31:33 PM	BW9631

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#: **2304931**

28-Apr-23

Client: ENSOLUM

Project: Lateral 2C 15 Sump

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **BW96311**	RunNo: **96311**
Prep Date:	Analysis Date: **4/26/2023**	SeqNo: **3488258** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.7	70	130			
Toluene	19	1.0	20.00	0	94.4	70	130			
Ethylbenzene	19	1.0	20.00	0	93.7	70	130			
Xylenes, Total	57	2.0	60.00	0	94.5	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		100	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **BW96311**	RunNo: **96311**
Prep Date:	Analysis Date: **4/26/2023**	SeqNo: **3488259** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	18		20.00		92.3	70	130			

Sample ID: **2304931-001ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-11**	Batch ID: **BW96311**	RunNo: **96311**
Prep Date:	Analysis Date: **4/26/2023**	SeqNo: **3488765** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.1	70	130			
Toluene	19	1.0	20.00	0	96.1	70	130			
Ethylbenzene	19	1.0	20.00	0	95.2	70	130			
Xylenes, Total	58	2.0	60.00	0	96.9	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		97.9	70	130			

Sample ID: **2304931-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-11**	Batch ID: **BW96311**	RunNo: **96311**
Prep Date:	Analysis Date: **4/26/2023**	SeqNo: **3488766** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.7	70	130	3.73	20	
Toluene	19	1.0	20.00	0	93.3	70	130	3.00	20	
Ethylbenzene	19	1.0	20.00	0	94.4	70	130	0.844	20	
Xylenes, Total	57	2.0	60.00	0	95.6	70	130	1.42	20	
Surr: 4-Bromofluorobenzene	20		20.00		101	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2304931 RcptNo: 1

Received By: Tracy Casarrubias 4/21/2023 6:30:00 AM

Completed By: Tracy Casarrubias 4/21/2023 10:39:39 AM

Reviewed By: JN 4/21/23

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: KBa 4-21-23

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: Phone number missing on COC- TMC 4/21/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes	Morty		

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

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

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

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Lateral 26-15 Sump

Project #: 05A1226105

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☑ Yes ☐ No Marty

# of Coolers: 1

Cooler Temp(Including CF): 2.1 + 0.1 = 2.2 (°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. 2304931	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)
4/20/23	9:50	W	MW-11	3x40mL VOA	H_2Cl_2	001	X									
4/20/23	10:35	W	MW-12			002	X									
4/20/23	11:10	W	MW-14			003	X									
4/20/23	11:45	W	MW-13			004	X									
4/20/23	12:15	W	MW-5			005	X									
4/20/23	12:45	W	MW-3			006	X									
4/20/23	13:25	W	MW-9			007	X									
4/20/23	14:00	W	MW-1			008	X									
4/20/23		W					X									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/20/23	1743				4/20/23	1743
4/20/23	1826			Courier	4/21/23	6:30

Remarks:
Bill to Ensolum

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: www.hallenvironmental.com

July 20, 2023

Kyle Summers

ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C 15 Sump OrderNo.: 2307473

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 7/12/2023 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 **2307473**
Date Reported: **7/20/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-8
Project: Lateral 2C 15 Sump **Collection Date:** 7/11/2023 10:20:00 AM
Lab ID: 2307473-001 **Matrix:** AQUEOUS **Received Date:** 7/12/2023 6:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 5:18:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 5:18:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 5:18:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 5:18:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	7/17/2023 5:18:00 PM	SL98240
Surr: Dibromofluoromethane	115	70-130		%Rec	1	7/17/2023 5:18:00 PM	SL98240
Surr: Toluene-d8	112	70-130		%Rec	1	7/17/2023 5:18:00 PM	SL98240

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 **2307473**
Date Reported: **7/20/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-7
Project: Lateral 2C 15 Sump **Collection Date:** 7/11/2023 10:55:00 AM
Lab ID: 2307473-002 **Matrix:** AQUEOUS **Received Date:** 7/12/2023 6:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 5:43:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 5:43:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 5:43:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 5:43:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	7/17/2023 5:43:00 PM	SL98240
Surr: Dibromofluoromethane	117	70-130		%Rec	1	7/17/2023 5:43:00 PM	SL98240
Surr: Toluene-d8	108	70-130		%Rec	1	7/17/2023 5:43:00 PM	SL98240

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 **2307473**
Date Reported: **7/20/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-6
Project: Lateral 2C 15 Sump **Collection Date:** 7/11/2023 11:25:00 AM
Lab ID: 2307473-003 **Matrix:** AQUEOUS **Received Date:** 7/12/2023 6:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 6:08:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 6:08:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 6:08:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 6:08:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	118	70-130		%Rec	1	7/17/2023 6:08:00 PM	SL98240
Surr: Dibromofluoromethane	118	70-130		%Rec	1	7/17/2023 6:08:00 PM	SL98240
Surr: Toluene-d8	108	70-130		%Rec	1	7/17/2023 6:08:00 PM	SL98240

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 **2307473**
Date Reported: **7/20/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-10
Project: Lateral 2C 15 Sump **Collection Date:** 7/11/2023 12:00:00 PM
Lab ID: 2307473-004 **Matrix:** AQUEOUS **Received Date:** 7/12/2023 6:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 6:33:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 6:33:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 6:33:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 6:33:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	118	70-130		%Rec	1	7/17/2023 6:33:00 PM	SL98240
Surr: Dibromofluoromethane	117	70-130		%Rec	1	7/17/2023 6:33:00 PM	SL98240
Surr: Toluene-d8	107	70-130		%Rec	1	7/17/2023 6:33:00 PM	SL98240

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 **2307473**
Date Reported: **7/20/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-2
Project: Lateral 2C 15 Sump
Collection Date: 7/11/2023 12:30:00 PM
Lab ID: 2307473-005 **Matrix:** AQUEOUS **Received Date:** 7/12/2023 6:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	1.0	1.0		µg/L	1	7/17/2023 6:57:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 6:57:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 6:57:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 6:57:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	7/17/2023 6:57:00 PM	SL98240
Surr: Dibromofluoromethane	113	70-130		%Rec	1	7/17/2023 6:57:00 PM	SL98240
Surr: Toluene-d8	111	70-130		%Rec	1	7/17/2023 6:57:00 PM	SL98240

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 **2307473**
Date Reported: **7/20/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-4
Project: Lateral 2C 15 Sump **Collection Date:** 7/11/2023 1:00:00 PM
Lab ID: 2307473-006 **Matrix:** AQUEOUS **Received Date:** 7/12/2023 6:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 7:22:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 7:22:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 7:22:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 7:22:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	7/17/2023 7:22:00 PM	SL98240
Surr: Dibromofluoromethane	116	70-130		%Rec	1	7/17/2023 7:22:00 PM	SL98240
Surr: Toluene-d8	112	70-130		%Rec	1	7/17/2023 7:22:00 PM	SL98240

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#: **2307473**

20-Jul-23

Client: ENSOLUM

Project: Lateral 2C 15 Sump

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **SL98240**	RunNo: **98240**
Prep Date:	Analysis Date: **7/17/2023**	SeqNo: **3578013** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.6	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		116	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		110	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL98240**	RunNo: **98240**
Prep Date:	Analysis Date: **7/17/2023**	SeqNo: **3578014** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		115	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM | Work Order Number: 2307473 | RcptNo: 1

Received By: Tracy Casarrubias 7/12/2023 6:15:00 AM

Completed By: Tracy Casarrubias 7/12/2023 11:32:01 AM

Reviewed By: TMC 7/12/23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: 7.12.23

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: Phone number is missing on COC- TMC 7/12/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Yes	yes		

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Lateral 2C-15 Sump

Project #: 05A1226 105 LD ~~215~~

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☒ Yes ☐ No 4001

# of Coolers: 1

Cooler Temp(including CF): 3.7-0=3.7 (°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. 2307473	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)
7/11/23	10:20	W	MW-8	1x40mLVOA 2x40mLVOA	HCl	001	X									
7/11/23	10:55	W	MW-7			002	X									
7/11/23	11:25	W	MW-6			003	X									
7/11/23	12:00	W	MW-10			004	X									
7/11/23	12:30	W	MW-2			005	X									
7/11/23	13:00	W	MW-4			006	X									

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/11/23	15:44		Christine Walker		7/11/23	1544
7/11/23	1816			courier	7/12/23	6:15

Remarks: 1 40mL VOA was dropped and busted
Bill to Ensolum

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: www.hallenvironmental.com

July 26, 2023

Kyle Summers
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C 15 Sump OrderNo.: 2307555

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/13/2023 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 **2307555**
Date Reported: **7/26/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-8
Project: Lateral 2C 15 Sump **Collection Date:** 7/12/2023 9:10:00 AM
Lab ID: 2307555-001 **Matrix:** AQUEOUS **Received Date:** 7/13/2023 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 8:36:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 8:36:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 8:36:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 8:36:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	7/17/2023 8:36:00 PM	SL98240
Surr: Dibromofluoromethane	117	70-130		%Rec	1	7/17/2023 8:36:00 PM	SL98240
Surr: Toluene-d8	112	70-130		%Rec	1	7/17/2023 8:36:00 PM	SL98240

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 **2307555**
Date Reported: **7/26/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-11
Project: Lateral 2C 15 Sump **Collection Date:** 7/12/2023 9:40:00 AM
Lab ID: 2307555-002 **Matrix:** AQUEOUS **Received Date:** 7/13/2023 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 9:01:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 9:01:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 9:01:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 9:01:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	7/17/2023 9:01:00 PM	SL98240
Surr: Dibromofluoromethane	118	70-130		%Rec	1	7/17/2023 9:01:00 PM	SL98240
Surr: Toluene-d8	108	70-130		%Rec	1	7/17/2023 9:01:00 PM	SL98240

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 **2307555**
Date Reported: **7/26/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-12
Project: Lateral 2C 15 Sump **Collection Date:** 7/12/2023 10:15:00 AM
Lab ID: 2307555-003 **Matrix:** AQUEOUS **Received Date:** 7/13/2023 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 9:25:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 9:25:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 9:25:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 9:25:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	116	70-130		%Rec	1	7/17/2023 9:25:00 PM	SL98240
Surr: Dibromofluoromethane	118	70-130		%Rec	1	7/17/2023 9:25:00 PM	SL98240
Surr: Toluene-d8	109	70-130		%Rec	1	7/17/2023 9:25:00 PM	SL98240

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 **2307555**
Date Reported: **7/26/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-14
Project: Lateral 2C 15 Sump **Collection Date:** 7/12/2023 10:50:00 AM
Lab ID: 2307555-004 **Matrix:** AQUEOUS **Received Date:** 7/13/2023 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	7/17/2023 9:50:00 PM	SL98240
Toluene	ND	1.0		µg/L	1	7/17/2023 9:50:00 PM	SL98240
Ethylbenzene	ND	1.0		µg/L	1	7/17/2023 9:50:00 PM	SL98240
Xylenes, Total	ND	1.5		µg/L	1	7/17/2023 9:50:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	118	70-130		%Rec	1	7/17/2023 9:50:00 PM	SL98240
Surr: Dibromofluoromethane	117	70-130		%Rec	1	7/17/2023 9:50:00 PM	SL98240
Surr: Toluene-d8	109	70-130		%Rec	1	7/17/2023 9:50:00 PM	SL98240

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 **2307555**
Date Reported: **7/26/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-13
Project: Lateral 2C 15 Sump
Collection Date: 7/12/2023 11:20:00 AM
Lab ID: 2307555-005 **Matrix:** AQUEOUS **Received Date:** 7/13/2023 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	2.0		µg/L	2	7/17/2023 10:39:00 PM	SL98240
Toluene	8.8	2.0		µg/L	2	7/17/2023 10:39:00 PM	SL98240
Ethylbenzene	35	2.0		µg/L	2	7/17/2023 10:39:00 PM	SL98240
Xylenes, Total	410	3.0		µg/L	2	7/17/2023 10:39:00 PM	SL98240
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	2	7/17/2023 10:39:00 PM	SL98240
Surr: Dibromofluoromethane	108	70-130		%Rec	2	7/17/2023 10:39:00 PM	SL98240
Surr: Toluene-d8	123	70-130		%Rec	2	7/17/2023 10:39:00 PM	SL98240

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 **2307555**
Date Reported: **7/26/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-5
Project: Lateral 2C 15 Sump
Collection Date: 7/12/2023 11:55:00 AM
Lab ID: 2307555-006 **Matrix:** AQUEOUS **Received Date:** 7/13/2023 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	5.1	5.0		µg/L	5	7/18/2023 1:42:00 PM	SL98286
Toluene	ND	5.0		µg/L	5	7/18/2023 1:42:00 PM	SL98286
Ethylbenzene	9.8	5.0		µg/L	5	7/18/2023 1:42:00 PM	SL98286
Xylenes, Total	18	7.5		µg/L	5	7/18/2023 1:42:00 PM	SL98286
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	5	7/18/2023 1:42:00 PM	SL98286
Surr: Dibromofluoromethane	111	70-130		%Rec	5	7/18/2023 1:42:00 PM	SL98286
Surr: Toluene-d8	111	70-130		%Rec	5	7/18/2023 1:42:00 PM	SL98286

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 **2307555**
Date Reported: **7/26/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-3
Project: Lateral 2C 15 Sump **Collection Date:** 7/12/2023 12:25:00 PM
Lab ID: 2307555-007 **Matrix:** AQUEOUS **Received Date:** 7/13/2023 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	31	5.0		µg/L	5	7/18/2023 2:56:00 PM	SL98286
Toluene	ND	5.0		µg/L	5	7/18/2023 2:56:00 PM	SL98286
Ethylbenzene	7.3	5.0		µg/L	5	7/18/2023 2:56:00 PM	SL98286
Xylenes, Total	ND	7.5		µg/L	5	7/18/2023 2:56:00 PM	SL98286
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	5	7/18/2023 2:56:00 PM	SL98286
Surr: Dibromofluoromethane	113	70-130		%Rec	5	7/18/2023 2:56:00 PM	SL98286
Surr: Toluene-d8	109	70-130		%Rec	5	7/18/2023 2:56:00 PM	SL98286

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 **2307555**
Date Reported: **7/26/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** MW-9
Project: Lateral 2C 15 Sump **Collection Date:** 7/12/2023 12:55:00 PM
Lab ID: 2307555-008 **Matrix:** AQUEOUS **Received Date:** 7/13/2023 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	2100	50		µg/L	50	7/18/2023 3:20:00 PM	SL98286
Toluene	840	50		µg/L	50	7/18/2023 3:20:00 PM	SL98286
Ethylbenzene	200	5.0		µg/L	5	7/18/2023 3:45:00 PM	SL98286
Xylenes, Total	1300	75		µg/L	50	7/18/2023 3:20:00 PM	SL98286
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	5	7/18/2023 3:45:00 PM	SL98286
Surr: Dibromofluoromethane	105	70-130		%Rec	5	7/18/2023 3:45:00 PM	SL98286
Surr: Toluene-d8	114	70-130		%Rec	5	7/18/2023 3:45:00 PM	SL98286

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#: **2307555**

26-Jul-23

Client: ENSOLUM

Project: Lateral 2C 15 Sump

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **SL98240**	RunNo: **98240**
Prep Date:	Analysis Date: **7/17/2023**	SeqNo: **3578013** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.6	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		116	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		110	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL98240**	RunNo: **98240**
Prep Date:	Analysis Date: **7/17/2023**	SeqNo: **3578014** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		115	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **SL98286**	RunNo: **98286**
Prep Date:	Analysis Date: **7/18/2023**	SeqNo: **3578531** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		112	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL98286**	RunNo: **98286**
Prep Date:	Analysis Date: **7/18/2023**	SeqNo: **3578532** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307555**

26-Jul-23

Client: ENSOLUM

Project: Lateral 2C 15 Sump

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL98286**	RunNo: **98286**
Prep Date:	Analysis Date: **7/18/2023**	SeqNo: **3578532** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		114	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	12		10.00		117	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

Sample ID: **2307555-006ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **MW-5**	Batch ID: **SL98286**	RunNo: **98286**
Prep Date:	Analysis Date: **7/18/2023**	SeqNo: **3578534** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	110	5.0	100.0	5.080	107	70	130			
Toluene	100	5.0	100.0	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	54		50.00		108	70	130			
Surr: 4-Bromofluorobenzene	58		50.00		116	70	130			
Surr: Dibromofluoromethane	56		50.00		112	70	130			
Surr: Toluene-d8	55		50.00		110	70	130			

Sample ID: **2307555-006amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **MW-5**	Batch ID: **SL98286**	RunNo: **98286**
Prep Date:	Analysis Date: **7/18/2023**	SeqNo: **3578535** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	110	5.0	100.0	5.080	100	70	130	6.03	20	
Toluene	96	5.0	100.0	0	96.0	70	130	6.16	20	
Surr: 1,2-Dichloroethane-d4	55		50.00		109	70	130	0	0	
Surr: 4-Bromofluorobenzene	58		50.00		116	70	130	0	0	
Surr: Dibromofluoromethane	57		50.00		114	70	130	0	0	
Surr: Toluene-d8	55		50.00		110	70	130	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.		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
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: ENSOLUM | Work Order Number: 2307555 | RcptNo: 1

Received By: Juan Rojas 7/13/2023 7:05:00 AM

Completed By: Cheyenne Cason 7/13/2023 9:54:33 AM

Reviewed By: JR 7-13-23

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 7/13/23

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	3.7	Good	Not Present	Morty		

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande Suite A
Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Lateral 2C-15 Sump

Project #: 05A1226105

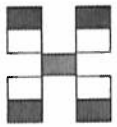
Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☒ Yes ☐ No

# of Coolers: 1 Mor+1

Cooler Temp(Including CF): 3.8-0.1=3.7 (°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. 2307555
7/12/23	9:10	W	MW-8	2x40mlVOA	$HgCl_2$	001
	9:40	W	MW-11	3x40mlVOA		002
	10:15	W	MW-12			003
	10:50	W	MW-14			004
	11:20	W	MW-13			005
	11:55	W	MW-5			006
	12:25	W	MW-3			007
	12:55	W	MW-9			008

Analysis Request

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)
X									
X									
X									
X									
X									
X									
X									
X									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/12/23	1523				7/12/23	1523
7/12/23	1820			Courier	7/13/23	7:05

Remarks: Bill to Ensolum
Only use MW-8 samples if the 7/11 MW-8 is not enough

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

November 15, 2023

Kyle Summers
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C 15 Sump OrderNo.: 2311003

Dear Kyle Summers:

Eurofins Environment Testing South Central, LLC received 5 sample(s) on 11/1/2023 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: **2311003**
Date Reported: **11/15/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Lab Order:** 2311003
Project: Lateral 2C 15 Sump

Lab ID: 2311003-001 **Collection Date:** 10/31/2023 10:50:00 AM
Client Sample ID: MW-8 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/10/2023 8:03:00 PM	BW101
Toluene	ND	1.0		µg/L	1	11/10/2023 8:03:00 PM	BW101
Ethylbenzene	ND	1.0		µg/L	1	11/10/2023 8:03:00 PM	BW101
Xylenes, Total	ND	2.0		µg/L	1	11/10/2023 8:03:00 PM	BW101
Surr: 4-Bromofluorobenzene	107	52.4-148		%Rec	1	11/10/2023 8:03:00 PM	BW101

Lab ID: 2311003-002 **Collection Date:** 10/31/2023 11:25:00 AM
Client Sample ID: MW-7 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/10/2023 8:24:00 PM	BW101
Toluene	ND	1.0		µg/L	1	11/10/2023 8:24:00 PM	BW101
Ethylbenzene	ND	1.0		µg/L	1	11/10/2023 8:24:00 PM	BW101
Xylenes, Total	ND	2.0		µg/L	1	11/10/2023 8:24:00 PM	BW101
Surr: 4-Bromofluorobenzene	103	52.4-148		%Rec	1	11/10/2023 8:24:00 PM	BW101

Lab ID: 2311003-003 **Collection Date:** 10/31/2023 12:00:00 PM
Client Sample ID: MW-6 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/10/2023 8:46:00 PM	BW101
Toluene	ND	1.0		µg/L	1	11/10/2023 8:46:00 PM	BW101
Ethylbenzene	ND	1.0		µg/L	1	11/10/2023 8:46:00 PM	BW101
Xylenes, Total	ND	2.0		µg/L	1	11/10/2023 8:46:00 PM	BW101
Surr: 4-Bromofluorobenzene	104	52.4-148		%Rec	1	11/10/2023 8:46:00 PM	BW101

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2311003**
Date Reported: **11/15/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Lab Order:** 2311003
Project: Lateral 2C 15 Sump

Lab ID: 2311003-004 **Collection Date:** 10/31/2023 12:35:00 PM
Client Sample ID: MW-10 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/10/2023 9:08:00 PM	BW101
Toluene	ND	1.0		µg/L	1	11/10/2023 9:08:00 PM	BW101
Ethylbenzene	ND	1.0		µg/L	1	11/10/2023 9:08:00 PM	BW101
Xylenes, Total	ND	2.0		µg/L	1	11/10/2023 9:08:00 PM	BW101
Surr: 4-Bromofluorobenzene	104	52.4-148		%Rec	1	11/10/2023 9:08:00 PM	BW101

Lab ID: 2311003-005 **Collection Date:** 10/31/2023 1:15:00 PM
Client Sample ID: MW-2 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/10/2023 9:30:00 PM	BW101
Toluene	ND	1.0		µg/L	1	11/10/2023 9:30:00 PM	BW101
Ethylbenzene	ND	1.0		µg/L	1	11/10/2023 9:30:00 PM	BW101
Xylenes, Total	2.6	2.0		µg/L	1	11/10/2023 9:30:00 PM	BW101
Surr: 4-Bromofluorobenzene	101	52.4-148		%Rec	1	11/10/2023 9:30:00 PM	BW101

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#: **2311003**

15-Nov-23

Client: ENSOLUM

Project: Lateral 2C 15 Sump

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **BW101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3713288** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.6	70	130			
Toluene	19	1.0	20.00	0	97.4	70	130			
Ethylbenzene	20	1.0	20.00	0	99.9	70	130			
Xylenes, Total	60	2.0	60.00	0	99.5	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		101	52.4	148			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **BW101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3713289** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		98.8	52.4	148			

Sample ID: **2311003-001ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-8**	Batch ID: **BW101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3713296** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	70	130			
Toluene	20	1.0	20.00	0	99.6	70	130			
Ethylbenzene	20	1.0	20.00	0	98.9	70	130			
Xylenes, Total	61	2.0	60.00	1.286	99.0	70	130			
Surr: 4-Bromofluorobenzene	22		20.00		110	52.4	148			

Sample ID: **2311003-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-8**	Batch ID: **BW101095**	RunNo: **101095**
Prep Date:	Analysis Date: **11/10/2023**	SeqNo: **3713297** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.8	70	130	1.25	20	
Toluene	20	1.0	20.00	0	99.2	70	130	0.397	20	
Ethylbenzene	19	1.0	20.00	0	96.9	70	130	2.09	20	
Xylenes, Total	59	2.0	60.00	1.286	96.8	70	130	2.27	20	
Surr: 4-Bromofluorobenzene	21		20.00		104	52.4	148	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2311003 RcptNo: 1

Received By: Tracy Casarrubias 11/1/2023 6:15:00 AM

Completed By: Tracy Casarrubias 11/1/2023 7:16:01 AM

Reviewed By: SCM 11/1/23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: 11-1-23

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: Phone number is missing on COC- TMC 11/1/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: ~~606 S. Rio Grande, Suite A~~ ~~606 S. Park Ave~~

Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: Lateral 2C-15 Sump

Project #: 05A1226105

Project Manager: K. Summers

Sampler:

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(Including CF): 1.6 - 0 = 1.6 °C (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2311003	BTEX / ~~MTBE~~ / ~~TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10/31/23	10:50	W	MW-8	3x 40mL VOA	HgCl	001	X									
	11:25	W	MW-7			002	X									
	12:00	W	MW-6			003	X									
	12:35	W	MW-10			004	X									
↓	13:15	W	MW-2	↓	↓	005	X									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/31/23	1543				10/31/23	1543
Date:	Time:	Relinquished by:	Received by:	Via: courier	Date	Time
10/31/23	1724				11/1/23	6:15

Remarks: Bill to Ensolum

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

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

November 17, 2023

Kyle Summers
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C 15 Sump OrderNo.: 2311120

Dear Kyle Summers:

Eurofins Environment Testing South Central, LLC received 9 sample(s) on 11/2/2023 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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-4
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 9:20:00 AM
Lab ID: 2311120-001 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/11/2023 10:28:00 PM	BW1011
Toluene	ND	1.0		µg/L	1	11/11/2023 10:28:00 PM	BW1011
Ethylbenzene	ND	1.0		µg/L	1	11/11/2023 10:28:00 PM	BW1011
Xylenes, Total	ND	2.0		µg/L	1	11/11/2023 10:28:00 PM	BW1011
Surr: 4-Bromofluorobenzene	101	52.4-148		%Rec	1	11/11/2023 10:28:00 PM	BW1011

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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-11
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 9:55:00 AM
Lab ID: 2311120-002 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/11/2023 10:50:00 PM	BW1011
Toluene	ND	1.0		µg/L	1	11/11/2023 10:50:00 PM	BW1011
Ethylbenzene	ND	1.0		µg/L	1	11/11/2023 10:50:00 PM	BW1011
Xylenes, Total	ND	2.0		µg/L	1	11/11/2023 10:50:00 PM	BW1011
Surr: 4-Bromofluorobenzene	102	52.4-148		%Rec	1	11/11/2023 10:50:00 PM	BW1011

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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-12
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 10:20:00 AM
Lab ID: 2311120-003 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/11/2023 11:12:00 PM	BW1011
Toluene	ND	1.0		µg/L	1	11/11/2023 11:12:00 PM	BW1011
Ethylbenzene	ND	1.0		µg/L	1	11/11/2023 11:12:00 PM	BW1011
Xylenes, Total	ND	2.0		µg/L	1	11/11/2023 11:12:00 PM	BW1011
Surr: 4-Bromofluorobenzene	100	52.4-148		%Rec	1	11/11/2023 11:12:00 PM	BW1011

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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-14
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 10:50:00 AM
Lab ID: 2311120-004 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	11/11/2023 11:34:00 PM	BW1011
Toluene	ND	1.0		µg/L	1	11/11/2023 11:34:00 PM	BW1011
Ethylbenzene	ND	1.0		µg/L	1	11/11/2023 11:34:00 PM	BW1011
Xylenes, Total	ND	2.0		µg/L	1	11/11/2023 11:34:00 PM	BW1011
Surr: 4-Bromofluorobenzene	101	52.4-148		%Rec	1	11/11/2023 11:34:00 PM	BW1011

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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-13
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 11:25:00 AM
Lab ID: 2311120-005 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	2.0		µg/L	5	11/11/2023 11:55:00 PM	BW1011
Toluene	5.7	2.0		µg/L	5	11/11/2023 11:55:00 PM	BW1011
Ethylbenzene	52	2.0		µg/L	5	11/11/2023 11:55:00 PM	BW1011
Xylenes, Total	180	4.0		µg/L	5	11/11/2023 11:55:00 PM	BW1011
Surr: 4-Bromofluorobenzene	119	52.4-148		%Rec	5	11/11/2023 11:55:00 PM	BW1011

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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-5
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 11:55:00 AM
Lab ID: 2311120-006 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	4.9	1.0		µg/L	1	11/12/2023 12:17:00 AM	BW1011
Toluene	ND	1.0		µg/L	1	11/12/2023 12:17:00 AM	BW1011
Ethylbenzene	3.0	1.0		µg/L	1	11/12/2023 12:17:00 AM	BW1011
Xylenes, Total	8.3	2.0		µg/L	1	11/12/2023 12:17:00 AM	BW1011
Surr: 4-Bromofluorobenzene	103	52.4-148		%Rec	1	11/12/2023 12:17:00 AM	BW1011

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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-3
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 12:35:00 PM
Lab ID: 2311120-007 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	26	1.0		µg/L	1	11/12/2023 12:39:00 AM	BW1011
Toluene	ND	1.0		µg/L	1	11/12/2023 12:39:00 AM	BW1011
Ethylbenzene	5.3	1.0		µg/L	1	11/12/2023 12:39:00 AM	BW1011
Xylenes, Total	9.3	2.0		µg/L	1	11/12/2023 12:39:00 AM	BW1011
Surr: 4-Bromofluorobenzene	148	52.4-148		%Rec	1	11/12/2023 12:39:00 AM	BW1011

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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-9
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 1:20:00 PM
Lab ID: 2311120-008 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	2000	50		µg/L	50	11/12/2023 1:22:00 AM	BW1011
Toluene	620	50		µg/L	50	11/12/2023 1:22:00 AM	BW1011
Ethylbenzene	140	50		µg/L	50	11/12/2023 1:22:00 AM	BW1011
Xylenes, Total	1000	100		µg/L	50	11/12/2023 1:22:00 AM	BW1011
Surr: 4-Bromofluorobenzene	98.4	52.4-148		%Rec	50	11/12/2023 1:22:00 AM	BW1011

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 **2311120**
Date Reported: **11/17/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: MW-1
Project: Lateral 2C 15 Sump
Collection Date: 11/1/2023 2:00:00 PM
Lab ID: 2311120-009 **Matrix:** AQUEOUS **Received Date:** 11/2/2023 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	910	20		µg/L	20	11/12/2023 1:44:00 AM	BW1011
Toluene	2000	20		µg/L	20	11/12/2023 1:44:00 AM	BW1011
Ethylbenzene	120	20		µg/L	20	11/12/2023 1:44:00 AM	BW1011
Xylenes, Total	3400	40		µg/L	20	11/12/2023 1:44:00 AM	BW1011
Surr: 4-Bromofluorobenzene	114	52.4-148		%Rec	20	11/12/2023 1:44:00 AM	BW1011

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#: **2311120**

17-Nov-23

Client: ENSOLUM

Project: Lateral 2C 15 Sump

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **BW101128**	RunNo: **101128**
Prep Date:	Analysis Date: **11/11/2023**	SeqNo: **3714283** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.0	70	130			
Toluene	19	1.0	20.00	0	96.9	70	130			
Ethylbenzene	20	1.0	20.00	0	99.2	70	130			
Xylenes, Total	60	2.0	60.00	0	99.6	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		102	52.4	148			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **BW101128**	RunNo: **101128**
Prep Date:	Analysis Date: **11/11/2023**	SeqNo: **3714284** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		96.4	52.4	148			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

eurofins

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: ENSOLUM Work Order Number: 2311120 RcptNo: 1

Received By: Tracy Casarrubias 11/2/2023 6:45:00 AM

Completed By: Tracy Casarrubias 11/2/2023 11:48:54 AM

Reviewed By: TM 11/3/23

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: SCM 11/3/23

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: Phone number and project manager are missing on COC- TMC 11/2/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.6	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Lateral 2C-15 Sump

Project #: 05A1226105

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ No yogi

# of Coolers: 1

Cooler Temp(Including CF): 0.6 - 0 = 0.6 (°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. 2311120	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)
11/1/23	9:20	W	MW-4	3x40mL VOA	$HgCl_2$	001	X									
	9:55	W	MW-11			002	X									
	10:20	W	MW-12			003	X									
	10:50	W	MW-14			004	X									
	11:25	W	MW-13			005	X									
	11:55	W	MW-5			006	X									
	12:35	W	MW-3			007	X									
	13:20	W	MW-9			008	X									
	14:00	W	MW-1			009	X									

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
11/1/23	1654				11/1/23	1654
11/1/23	1744			courier	11/2/23	6:45

Remarks: Bill to Ensolum

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 302990

CONDITIONS

Operator:	OGRID:
Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	241602
	Action Number: 302990
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Accepted for the record	4/2/2024