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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

| | |
|---|---|
| Incident ID: | nAB1702454101 |
| District RP | |
| Facility ID | |
| Application ID | |

# Release Notification

## Responsible Party

| | |
|---|---|
| Responsible Party: WPX Energy Permian, LLC | OGRID: 246289 |
| Contact Name: Jim Raley | Contact Telephone: 575-689-7597 |
| Contact email: jim.raley@dvn.com | Incident # *(assigned by OCD):* nAB1702454101 |
| Contact mailing address: 5315 Buena Vista Dr, Carlsbad, NM, 88220 | |

## Location of Release Source

Latitude 32.00706894 Longitude -103.9397305
*(NAD 83 in decimal degrees to 5 decimal places)*

| | |
|---|---|
| Site Name: UCBH WW Federal 3 | Site Type: Wellpad |
| Date Release Discovered: 1/6/2017 | API# *(if applicable)*: 30-015-24451 |

| Unit Letter | Section | Township | Range | County |
|---|---|---|---|---|
| N | 25 | 26S | 29E | Eddy |

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

## Nature and Volume of Release

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

| | | |
|---|---|---|
| ☒ Crude Oil | Volume Released (bbls): 5 bbls | Volume Recovered (bbls): 0 |
| ☒ Produced Water | Volume Released (bbls): 5 bbls | Volume Recovered (bbls): 0 |
| | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | ☐ Yes ☐ No |
| ☐ Condensate | Volume Released (bbls) | Volume Recovered (bbls) |
| ☐ Natural Gas | Volume Released (Mcf) | Volume Recovered (Mcf) |
| ☐ Other (describe) | Volume/Weight Released (provide units) | Volume/Weight Recovered (provide units) |

Cause of Release:

Human Error; leaking stuffing box. Approximately 5 bbls of water and oil spilled on location.

$$bbl\ estimate = \frac{saturated\ soil\ volume(ft^3)}{4.21(\frac{ft^3}{bbl\ equivalent})} * estimated\ soil\ porosity\ (\%) + recoverd\ fluids\ (bbls)$$

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID: | nAB1702454101 |
| District RP | |
| Facility ID | |
| Application ID | |

| | |
|---|---|
| Was this a major release as defined by 19.15.29.7(A) NMAC?<br><br>☐ Yes ☒ No | If YES, for what reason(s) does the responsible party consider this a major release? |
| If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? | |

## Initial Response

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

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

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

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

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

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 5/23/2023

email: Jim.Raley@dvn.com Telephone: 575-689-7597

**OCD Only**

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID: | nAB1702454101 |
| District RP | |
| Facility ID | |
| Application ID | |

# Site Assessment/Characterization

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

| | |
|---|---|
| What is the shallowest depth to groundwater beneath the area affected by the release? | 51-100 (ft bgs) |
| Did this release impact groundwater or surface water? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | ☒ Yes ☐ No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | ☐ Yes ☒ No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | ☐ Yes ☒ No |
| Are the lateral extents of the release within 300 feet of a wetland? | ☐ Yes ☒ No |
| Are the lateral extents of the release overlying a subsurface mine? | ☐ Yes ☒ No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | ☒ Yes ☐ No |
| Are the lateral extents of the release within a 100-year floodplain? | ☐ Yes ☒ No |
| Did the release impact areas **not** on an exploration, development, production, or storage site? | ☐ Yes ☒ No |

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID: | nAB1702454101 |
| District RP | |
| Facility ID | |
| Application ID | |

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

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 5/23/2023

email: jim.raley@dvn.com Telephone: 575-689-7597

**OCD Only**

Received by: Jocelyn Harimon Date: 05/24/2023

| | |
|---|---|
| Incident ID: | nAB1702454101 |
| District RP | |
| Facility ID | |
| Application ID | |

# Remediation Plan

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

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

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Jim Raley  Title: Environmental Professional

Signature: Jim Raley  Date: 5/23/2023

email: jim.raley@dvn.com  Telephone: 575-689-7597

**OCD Only**

Received by: Jocelyn Harimon  Date: 05/24/2023

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

Signature:  Date:

# REMEDIATION WORK PLAN

**UCBH WW Federal 3**

**Eddy County, New Mexico**

**Incident Number nAB1702454101**

**Prepared For:**

**WPX Permian Energy, LLC.**

Carlsbad ● Midland ● San Antonio ● Lubbock ● Hobbs ● Lafayette

## SYNOPSIS

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following Remediation Work Plan (RWP) detailing site assessment and delineation soil sampling activities at the UCBH WW Federal 3 (Site). Based on field observations, field screening activities and review of the laboratory analytical results from delineation soil sampling activities at the Site, WPX proposes this RWP, which summarizes initial response efforts and details remediation objectives to rectify environmental impacts.

## SITE LOCATION AND RELEASE BACKGROUND

The Site is located in Unit N, Section 25, Township 26 South, Range 29 East, in Eddy County, New Mexico (32.00706894°N, 103.9397305°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land (**Figure 1** in **Appendix A**).

On January 6, 2017, a stuffing box on the wellhead failed and released approximately 5 barrels (bbls) of crude oil and 5 bbls of produced water to the well pad surface and adjacent pasture. No fluids were able to be recovered. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) with a Corrective Action Form C-141 (Form C-141), which was received by the NMOCD on January 19, 2017, and was subsequently assigned Incident Number nAB1702454101. **Figure 2** in **Appendix A** depicts the observed release area, hereafter referred to as the Area of Concern (AOC). Since initial response efforts, plugging and abandonment activities at the Site were completed in December of 2019.

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

Etech characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) considering depth to groundwater and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;
- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

Depth to groundwater at the Site is estimated to be between 51 and 100 feet below ground surface (bgs) based a recent measurement of a nearby well on the JC Williams Yard owned by WPX, located approximately 0.5 miles northwest of the Site. The well does not appear to have an identification number corresponding to the New Mexico Office of the State Engineer (NMOSE) or United States Geological Survey (USGS) well records. However, a depth to groundwater measurement at the well was obtained on August 15, 2022, and measured 82.9 feet bgs. The location of the JC Williams well is provided in **Figure 1** in **Appendix A**. The Groundwater Measurement Form summarizing findings is provided as **Appendix B**.

Based on the initial desktop review, the closest continuously flowing or significant water course to the Site is a dry wash, located approximately 37 feet south of the Site. It should be noted that a margin of error is possible based on imagery only; field verification can further confirm these specified classifications developed from image analysis. The Site is underlaid by unstable geology (high potential karst designation

area). All other potential receptors are not within the established buffers in NMAC 19.15.29.12. Receptor details from the site characterization are included in **Figure 1** in **Appendix A**.

Based on the results from the desktop review and estimated regional depth to groundwater at the Site, the following Closure Criteria was applied:

| Constituents of Concern (COCs) | Laboratory Analytical Method | Closure Criteria |
|---|---|---|
| Chloride | Environmental Protection Agency (EPA) 300.0 | 600 milligrams per kilogram (mg/kg) |
| Total Petroleum Hydrocarbon (TPH) | EPA 8015 M/D | 100 mg/kg |
| Benzene | EPA 8021B | 10 mg/kg |
| Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX) | EPA 8021B | 50 mg/kg |

## DELINEATION SOIL SAMPLING ACTIVITIES

On September 14, 2022, delineation soil sampling activities were conducted at the Site to assess the presence or absence of soil impacts associated with the AOC. Eight boreholes (BH01 through BH08) were advanced with a hand auger within and outside of the AOC. Delineation activities were driven by field screening soil for volatile aromatic hydrocarbons utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. A minimum of two soil samples were collected from each delineation soil sample location: the sample with the highest observed field screening and the greatest depth. The locations of the delineation soil samples are shown in **Figure 2** in **Appendix A**. Field screening results and observations for each delineation soil sample were recorded on soil sampling logs (**Appendix C**). Photographic documentation during delineation activities is included in **Appendix D**.

Delineation soil samples were placed directly into lab provided pre-cleaned glass jars, packaged with minimal void space, labeled and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures, to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of COCs.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for BH01, BH02 and BH04 advanced within the AOC indicated chloride concentrations exceeding the Site Closure Criteria (ranging from 0.5-foot bgs to 8 feet bgs); delineation soil samples collected outside of the AOC indicated all COCs were below the Site Closure Criteria and will assist with defining a clean lateral excavation boundary.

Laboratory analytical results are summarized in **Table 1** included in **Appendix E**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix F**.

## PROPOSED REMEDIATION WORK PLAN

Based on the summary of delineation soil sampling results, the following conclusions regarding the release are presented:

- Laboratory analytical results for all delineation soil samples indicated BTEX and TPH concentrations were below the laboratory detection threshold for soil samples collected from every depth;
- Laboratory analytical results for BH01, BH02 and BH04 advanced within the AOC indicated chloride concentrations exceeding the Site Closure Criteria (ranging from 0.5-foot bgs to 8 feet bgs);

delineation soil samples collected outside of the AOC indicated all COCs were below the Site Closure Criteria and will assist with defining a clean lateral excavation boundary;

- Currently, delineation soil sampling results provide representative lateral and vertical delineation of residual impacts in soil. Remaining impacts within the AOC are characterized by chloride concentrations ranging from 727 mg/kg to 3,910 mg/kg based on BH01, BH02 and BH04.

- Based on current delineation soil sampling results, locations and the extent of the mapped AOC (17,850 square feet), an estimated 3,307 cubic yards of impacted soil is anticipated to be removed from the Site for disposal in accordance with state and federal regulations;

Based on the conclusions drawn above, WPX proposes the following remediation efforts:

- Depth to groundwater at the Site is estimated to be between 51 and 100 feet bgs based a recent measurement of a nearby well on the JC Williams Yard, located approximately 0.5 miles northwest of the Site, where groundwater was observed to be 82.9 feet bgs;

- WPX requests up to the top four feet of impacted soil be excavated within the AOC to address chloride exceedances and a 20-mil impermeable liner installed on the excavation floor. The liner would mitigate migration of residual chloride impacts into the subsurface. The proposed lateral extent of the excavation will be confirmed via confirmation sidewall soil samples (**Figure 3** in **Appendix A**);

- Following removal of soil impacts, 5-point confirmation soil samples will be collected from the excavation sidewalls and be analyzed by an accredited laboratory for BTEX, TPH and chloride. Excavated soil will then be transferred to a New Mexico approved landfill facility for disposal and the excavation will be backfilled with non-waste containing soil, as defined by “Procedures for Implementation of the Spill Rule” (September 6, 2019);

- WPX is requesting a variance to the 200 square foot confirmation sampling requirement for the areas to be excavated, which would require an estimated 15 sidewall soil samples. Due to the extensive anticipated excavation extent based of measurements of the AOC (580 linear feet by 4 feet bgs), WPX proposes increasing the confirmation sampling frequency to 500 square feet for the sidewalls of the excavation, for a total of 7 sidewall soil samples. Residual chloride impacts within the AOC are defined by BH01 at 4 feet, BH02 at 6 feet and BH04 at 0.5-foot bgs., therefore no confirmation floor soil samples will be collected.

- There are areas off pad that will likely require third-party operator oversight and additional safety measures before or during remediation activities near their respective subsurface pipelines. WPX or the third-party operator may implement additional safety precautions above encroachment guidelines, including restrictions on hand shoveling and cribbing. These restrictions may be implemented as health and safety precautions at the judgment and responsibility of a WPX or third-party operator safety representative; and

- Subsequent to the completion of remediation and receipt of soil confirmation sample results documenting that impacted soil had been removed, the excavation will be backfilled with clean and/or treated soil and restored to “as close to its original state” as possible.

WPX believes the scope of work described above will meet requirements set forth in NMAC guidelines and be protective of human health, the environment, and groundwater. As such, WPX respectfully requests approval of this RWP from NMOCD.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (281) 702-2329 or joseph@etechenv.com or Anna Byers at (575) 200-6754 or anna@etechenv.com.

Documentation of communication with NMOCD regarding Incident Number nAB1702454101 is presented as **Attachment G**.

Sincerely,

Etech Environmental and Safety Solutions, Inc.

Anna Byers
Senior Geologist

Joseph Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

**Appendices:**

**Appendix A**: Figure 1: Site Map
Figure 2: Delineation Soil Sample Locations
Figure 3: Proposed Remediation Area
**Appendix B**: Referenced Well Records
**Appendix C**: Soil Sampling Logs
**Appendix D**: Photographic Log
**Appendix E**: Tables
**Appendix F**: Laboratory Analytical Reports & Chain-of-Custody Documentation
**Appendix G**: NMOCD Correspondence

# APPENDIX A

## Figures

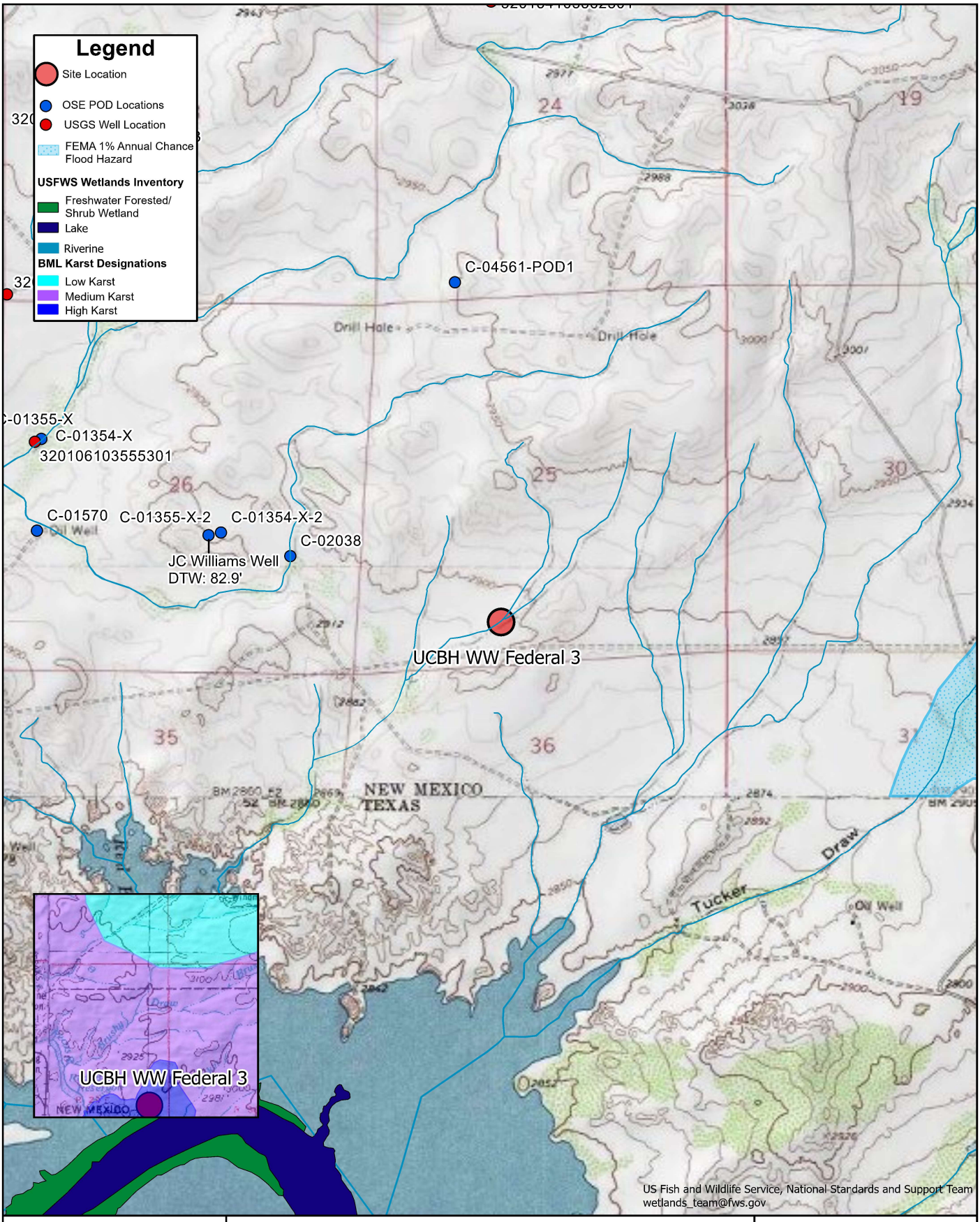


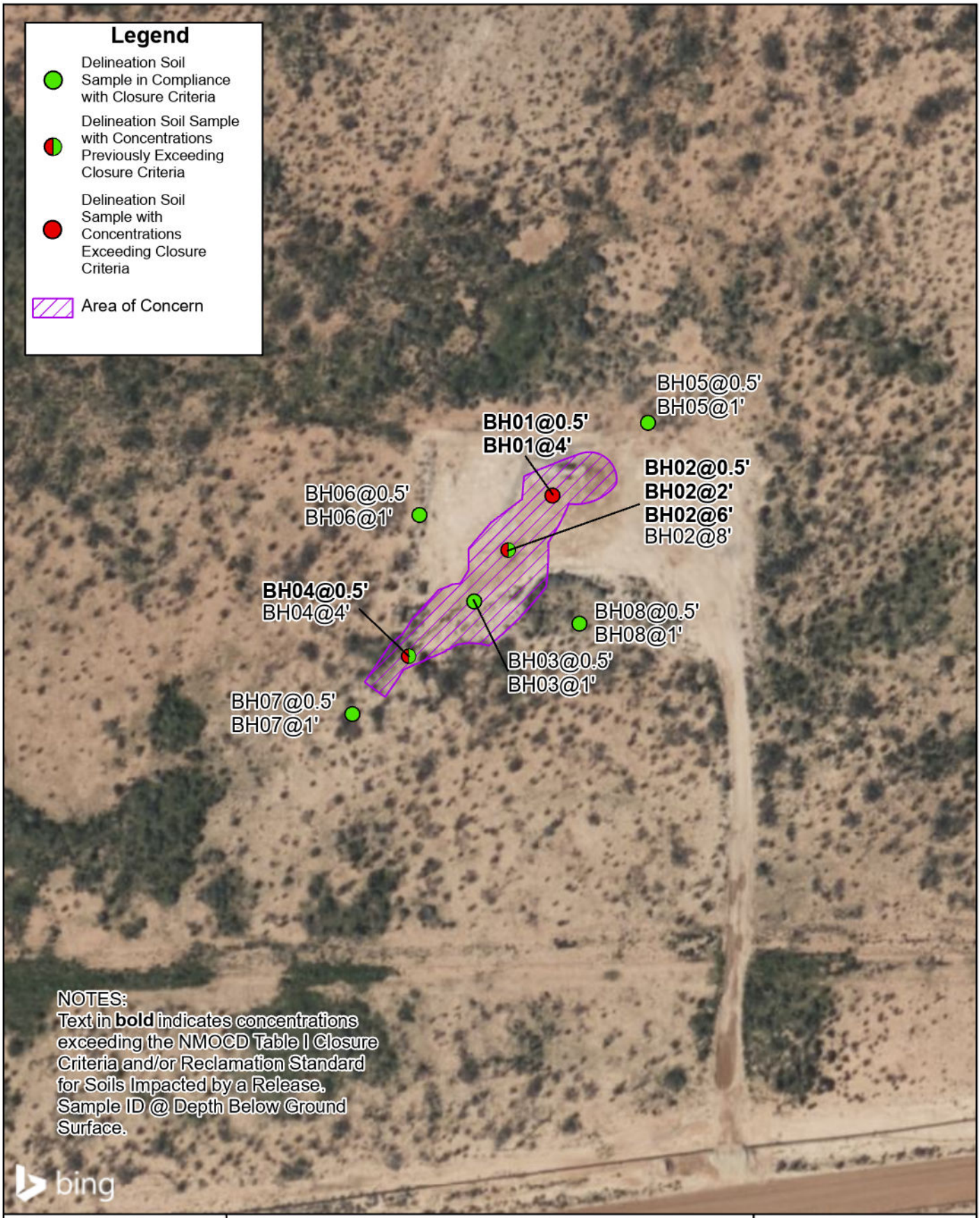

FIGURE 1

## Site Map

WPX ENERGY PERMIAN
UCBH WW Federal 3
Unit N Sec 25 T26S R29E
Eddy County, New Mexico

N

0 1,000 2,000 Feet




eTECH

FIGURE 2

# Delineation Soil Sample Locations

WPX ENERGY PERMIAN, LLC
UCBH WW Federal 3
Unit N Sec 25 T26S R29E
Eddy County, New Mexico

N

0 25 50 100 Feet


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FIGURE 3

# Proposed Remediation Area

WPX ENERGY PERMIAN, LLC
UCBH WW Federal 3
Unit N Sec 25 T26S R29E
Eddy County, New Mexico

N

0 25 50 100 Feet

# APPENDIX B

# Referenced Well Records

Client: Devon Energy

Project Name: JC Williams Well GW measurement

Project Location: 32.0105289,-103.9534960

Project Manager: Joseph Hernandez

# GROUNDWATER SAMPLING FORM

**SAMPLING INFORMATION**

Soil Boring / Monitor Well Number: NA

Project #: 03A1987013

Date Completed: NA

Type of Water Quality Meter:

Total Depth of Monitor Well: NA

Date Calibrated NA

Screen Interval: NA

Other Notes: used decontaminated water level indicator meter to measure groundwater depth in existing well

Sample Tubing Intake Depth: NA

Geologist: Gilbert Moreno

| Monitor Well Detail | Tubing Placement | GW Depth (static) | After Purge |
|---|---|---|---|
| | | | |

| Time (minutes) | Purge Rate (L/min) | Temp. (ºC) | pH (unitless) | DO (mg/L) | ORP (mV) | Cond. (mS/cm) | GW Depth (feet) |
|---|---|---|---|---|---|---|---|
| NR | NR | NR | NR | NR | NR | NR | 82.9 |

**Comments:**

NA = Not Available
NR = Not Recorded

ENSOLUM

# APPENDIX C

## Soil Sampling Logs

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# LITHOLOGIC / SOIL SAMPLING LOG

| | | |
|---|---|---|
| Sample Name: BH01 | Date: 09/14/2022 | |
| Site Name: UCBH WW Federal 3 | | |
| Incident Number: nAB1702454101 | | |
| Job Number:18174 | | |
| Logged By: GM | Method: Hand Auger | |
| Site Coordinates: 32.007092, -103.940206 | Hole Diameter: 3" | Total Depth: 4' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (feet bgs) | Depth (feet bgs) | USCS/Rock Symbol | Lithologic Descriptions/Notes |
|---|---|---|---|---|---|---|---|---|
| | | | | | | 0 | | 0-4', SAND, dry, reddish-brown, poorly graded with silt, very fine-fine, trace white subround to subangular gravel, no staining, no odor. |
| DRY | 1,613 | 0 | NO | BH01 | 0.5 | | SP-SM | |
| DRY | 1,613 | 0.2 | NO | | 1 | 1 | SP-SM | @ 3', trace clay, no gravel. |
| DRY | 4,799 | 0.1 | NO | | 2 | | | |
| | | | | | 3 | 3 | SP-SM | |
| DRY | 521 | 0.3 | NO | BH01 | 4 | 4 | SP-SM | |

Total depth: 4 feet

eTECH

# LITHOLOGIC / SOIL SAMPLING LOG

| | | |
|---|---|---|
| | Sample Name: BH02 | Date: 09/14/2022 |
| | Site Name: UCBH WW Federal 3 | |
| | Incident Number: nAB1702454101 | |
| | Job Number:18174 | |
| | Logged By: GM | Method: Hand Auger |
| Site Coordinates: 32.007092, -103.940206 | Hole Diameter: 3" | Total Depth: 8' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (feet bgs) | Depth (feet bgs) | USCS/Rock Symbol | Lithologic Descriptions/Notes |
|---|---|---|---|---|---|---|---|---|
| | | | | | | 0 | | |
| DRY | 857 | 0 | NO | BH02 | 0.5 | | SP-SM | 0-4', SAND, dry, reddish-brown, poorly graded with silt, very fine-fine, trace white subround to subangular gravel, no staining, no odor. |
| DRY | 3,545 | 0.2 | NO | | 1 | 1 | SP-SM | @ 3', trace clay, no gravel. |
| DRY | 5,197 | 0.1 | NO | BH02 | 2 | 2 | SP-SM | |
| DRY | 5,617 | | NO | | 3 | 3 | SP-SM | |
| DRY | 2,643 | 0.3 | NO | | 4 | 4 | SP-SM | |
| | | | | | | 5 | | |
| DRY | 2,139 | 0 | NO | BH02 | 6 | 6 | SP-SM | |
| | | | | | | 7 | | |
| DRY | 168 | 0 | NO | BH02 | 8 | 8 | SP-SM | |

Total depth: 8 feet

eTECH

# LITHOLOGIC / SOIL SAMPLING LOG

| | | |
|---|---|---|
| | Sample Name: BH03 | Date: 09/14/2022 |
| | Site Name: UCBH WW Federal 3 | |
| | Incident Number: nAB1702454101 | |
| | Job Number:18174 | |
| | Logged By: GM | Method: Hand Auger |
| Site Coordinates: 32.007092, -103.940206 | Hole Diameter: 3" | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (feet bgs) | Depth (feet bgs) | USCS/Rock Symbol | Lithologic Descriptions/Notes |
|---|---|---|---|---|---|---|---|---|
| | | | | | | 0 | | |
| DRY | 857 | 0 | NO | BH03 | 0.5 | | SP-SM | 0-4', SAND, dry, reddish-brown, poorly graded with silt, very fine-fine, trace clay gravel, no staining, no odor. |
| DRY | 3,545 | 0.2 | NO | BH03 | 1 | 1 | SP-SM | |

Total depth: 1 foot

eTECH

# LITHOLOGIC / SOIL SAMPLING LOG

| | | |
|---|---|---|
| | Sample Name: BH04 | Date: 09/14/2022 |
| | Site Name: UCBH WW Federal 3 | |
| | Incident Number: nAB1702454101 | |
| | Job Number:18174 | |
| | Logged By: GM | Method: Hand Auger |
| Site Coordinates: 32.007092, -103.940206 | Hole Diameter: 3" | Total Depth: 4' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (feet bgs) | Depth (feet bgs) | USCS/Rock Symbol | Lithologic Descriptions/Notes |
|---|---|---|---|---|---|---|---|---|
| | | | | | | 0 | | |
| DRY | 1,014 | 0.2 | NO | BH04 | 0.5 | | SP-SM | 0-4', SAND, dry, reddish-brown, poorly graded with silt, very fine-fine, trace clay gravel, no staining, no odor. |
| DRY | 857 | 0.1 | NO | | 1 | 1 | SP-SM | |
| DRY | 930 | 0.2 | NO | | 2 | 2 | SP-SM | |
| DRY | 1,014 | 0.1 | NO | | 3 | 3 | SP-SM | |
| DRY | 414 | 0.1 | NO | BH04 | 4 | 4 | SP-SM | |

Total depth: 4 feet

eTECH

# LITHOLOGIC / SOIL SAMPLING LOG

| | | |
|---|---|---|
| | Sample Name: BH05 | Date: 09/14/2022 |
| | Site Name: UCBH WW Federal 3 | |
| | Incident Number: nAB1702454101 | |
| | Job Number:18174 | |
| | Logged By: GM | Method: Hand Auger |
| Site Coordinates: 32.007092, -103.940206 | Hole Diameter: 3" | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (feet bgs) | Depth (feet bgs) | USCS/Rock Symbol | Lithologic Descriptions/Notes |
|---|---|---|---|---|---|---|---|---|
| DRY | <168 | 0 | NO | BH05 | 0.5 | 0 | SP-SM | 0-4', SAND, dry, reddish-brown, poorly graded with silt, very fine, no staining, no odor. |
| DRY | <168 | 0 | NO | BH05 | 1 | 1 | SP-SM | |

Total depth: 1 feet

eTECH

# LITHOLOGIC / SOIL SAMPLING LOG

| | | |
|---|---|---|
| | Sample Name: BH06 | Date: 09/14/2022 |
| | Site Name: UCBH WW Federal 3 | |
| | Incident Number: nAB1702454101 | |
| | Job Number:18174 | |
| | Logged By: GM | Method: Hand Auger |
| Site Coordinates: 32.007092, -103.940206 | Hole Diameter: 3" | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (feet bgs) | Depth (feet bgs) | USCS/Rock Symbol | Lithologic Descriptions/Notes |
|---|---|---|---|---|---|---|---|---|
| DRY | <168 | 0 | NO | BH06 | 0.5 | 0 | SP-SM | 0-4', SAND, dry, reddish-brown, poorly graded with silt, very fine, no staining, no odor. |
| DRY | <168 | 0 | NO | BH06 | 1 | 1 | SP-SM | |

Total depth: 1 feet

eTECH

# LITHOLOGIC / SOIL SAMPLING LOG

| | | |
|---|---|---|
| | Sample Name: BH07 | Date: 09/14/2022 |
| | Site Name: UCBH WW Federal 3 | |
| | Incident Number: nAB1702454101 | |
| | Job Number:18174 | |
| | Logged By: GM | Method: Hand Auger |
| Site Coordinates: 32.007092, -103.940206 | Hole Diameter: 3" | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (feet bgs) | Depth (feet bgs) | USCS/Rock Symbol | Lithologic Descriptions/Notes |
|---|---|---|---|---|---|---|---|---|
| DRY | <168 | 0 | NO | BH07 | 0.5 | 0 | SP-SM | 0-4', SAND, dry, reddish-brown, poorly graded with silt, very fine, no staining, no odor. |
| DRY | <168 | 0 | NO | BH07 | 1 | 1 | SP-SM | |

Total depth: 1 feet

eTECH

# LITHOLOGIC / SOIL SAMPLING LOG

| | | |
|---|---|---|
| | Sample Name: BH08 | Date: 09/14/2022 |
| | Site Name: UCBH WW Federal 3 | |
| | Incident Number: nAB1702454101 | |
| | Job Number:18174 | |
| | Logged By: GM | Method: Hand Auger |
| Site Coordinates: 32.007092, -103.940206 | Hole Diameter: 3" | Total Depth: 1' |

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

| Moisture Content | Chloride (ppm) | Vapor (ppm) | Staining | Sample ID | Sample Depth (feet bgs) | Depth (feet bgs) | USCS/Rock Symbol | Lithologic Descriptions/Notes |
|---|---|---|---|---|---|---|---|---|
| | | | | | | 0 | | |
| DRY | <168 | 0 | NO | BH08 | 0.5 | | SP-SM | 0-4', SAND, dry, reddish-brown, poorly graded with silt, very fine, no staining, no odor. |
| DRY | <168 | 0 | NO | BH08 | 1 | 1 | SP-SM | |

Total depth: 1 feet

# APPENDIX D

# Photographic Log

# PHOTOGRAPHIC LOG

WPX Energy Permian, LLC
UCBH WW Federal 3
Incident Number nAB1702454101


**Photograph 1** **Date: 9/14/2022**
Description: Delineation activities, BH01
View: Northeast


**Photograph 2** **Date: 9/14/2022**
Description: Delineation activities, BH02
View: Northeast


**Photograph 3** **Date: 9/14/2022**
Description: Delineation activities, BH03
View: Northeast


**Photograph 4** **Date: 9/14/2022**
Description: Delineation activities, BH04
View: Northeast

# APPENDIX E

# Tables

eTECH

# Table 1
## SOIL SAMPLE ANALYTICAL RESULTS
## WPX Energy Permian, LLC
## UCBH WW Federal 3
## Eddy County, New Mexico

| Sample I.D. | Sample Date | Sample Depth (feet bgs) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH GRO (mg/kg) | TPH DRO (mg/kg) | TPH ORO (mg/kg) | Total TPH (mg/kg) | Chloride (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|
| NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29) | | | 10 | 50 | NE | NE | NE | 100 | 600 |
| Delineation Soil Samples - nAB1702454101 | | | | | | | | | |
| BH01 | 09/14/22 | 0.5 | <0.00202 | <0.00404 | <49.9 | <49.9 | <49.9 | <49.9 | **1,180** |
| BH01 | 09/14/22 | 4 | <0.00200 | <0.00399 | <49.9 | <49.9 | <49.9 | <49.9 | **727** |
| BH02 | 09/14/22 | 0.5 | <0.00199 | <0.00398 | <50.0 | <50.0 | <50.0 | <50.0 | **871** |
| BH02 | 09/14/22 | 2 | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | **3,910** |
| BH02 | 09/14/22 | 6 | <0.00198 | <0.00396 | <50.0 | <50.0 | <50.0 | <50.0 | **2,110** |
| BH02 | 09/14/22 | 8 | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 193 |
| BH03 | 09/14/22 | 0.5 | <0.00200 | <0.00401 | <49.9 | <49.9 | <49.9 | <49.9 | 13.2 |
| BH03 | 09/14/22 | 1 | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 13.5 |
| BH04 | 09/14/22 | 0.5 | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | **1,420** |
| BH04 | 09/14/22 | 4 | <0.00201 | <0.00402 | <49.9 | <49.9 | <49.9 | <49.9 | 342 |
| BH05 | 09/14/22 | 0.5 | <0.00199 | <0.00398 | <49.9 | <49.9 | <49.9 | <49.9 | 11.9 |
| BH05 | 09/14/22 | 1 | <0.00201 | <0.00402 | <50.0 | <50.0 | <50.0 | <50.0 | 10.1 |
| BH06 | 09/14/22 | 0.5 | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | 24.3 |
| BH06 | 09/14/22 | 1 | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 26.8 |
| BH07 | 09/14/22 | 0.5 | <0.00198 | <0.00396 | <50.0 | <50.0 | <50.0 | <50.0 | 117 |
| BH07 | 09/14/22 | 1 | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | 49.9 |
| BH08 | 09/14/22 | 0.5 | <0.00200 | <0.00399 | <50.0 | <50.0 | <50.0 | <50.0 | 10.5 |
| BH08 | 09/14/22 | 1 | <0.00200 | <0.00401 | <50.0 | <50.0 | <50.0 | <50.0 | 12.1 |

*Notes:*
*bgs: below ground surface*
*mg/kg: milligrams per kilogram*
*BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes*
*GRO: Gasoline Range Organics*
*DRO: Diesel Range Organics*
*ORO: Oil Range Organics*
*TPH: Total Petroleum Hydrocarbon*
*NMOCD: New Mexico Oil Conservation Division*
*NMAC: New Mexico Administrative Code*
*Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release*

# APPENDIX F

## Laboratory Analytical Reports & Chain-of-Custody Documentation

eurofins | Environment Testing America

# ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2965-1
Laboratory Sample Delivery Group: Rural Eddy NM
Client Project/Site: UCBH WW 3
Revision: 1

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Devon Team

JKramer

*Authorized for release by:*
*9/30/2022 2:28:20 PM*

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com



This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: UCBH WW 3

Laboratory Job ID: 890-2965-1
SDG: Rural Eddy NM

# Table of Contents

# Definitions/Glossary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| *- | LCS and/or LCSD is outside acceptance limits, low biased. |
| *1 | LCS/LCSD RPD exceeds control limits. |
| F1 | MS and/or MSD recovery exceeds control limits. |
| U | Indicates the analyte was analyzed for but not detected. |

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| U | Indicates the analyte was analyzed for but not detected. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

# Case Narrative

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Job ID: 890-2965-1

### Laboratory: Eurofins Carlsbad

**Narrative**

**Job Narrative**
**890-2965-1**

REVISION

The report being provided is a revision of the original report sent on 9/26/2022. The report (revision 1) is being revised due to per client email, requesting correction to sample depth.

Report revision history

**Receipt**
The samples were received on 9/14/2022 4:34 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

**GC VOA**
Method 8021B: LCSD biased low. Since only an acceptable LCS is required per the method, the data has been qualified and reported. (LCSD 880-35199/2-A)

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-35199 and analytical batch 880-35329 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**GC Semi VOA**
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34681 and analytical batch 880-34714 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**HPLC/IC**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH01
**Date Collected: 09/14/22 10:00**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-2965-1
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U *1 | 0.00202 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:07 | 1 |
| Toluene | <0.00202 | U *- | 0.00202 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:07 | 1 |
| Ethylbenzene | <0.00202 | U *- F1 | 0.00202 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:07 | 1 |
| m-Xylene & p-Xylene | <0.00404 | U *- F1 | 0.00404 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:07 | 1 |
| o-Xylene | <0.00202 | U *- F1 | 0.00202 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:07 | 1 |
| Xylenes, Total | <0.00404 | U *- F1 | 0.00404 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 16:07* | *1* |
| *1,4-Difluorobenzene (Surr)* | *111* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 16:07* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00404 | U | 0.00404 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 21:34 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U F1 | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 21:34 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 21:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *91* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 21:34* | *1* |
| *o-Terphenyl* | *92* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 21:34* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1180** | | 4.99 | | mg/Kg | | | 09/20/22 22:56 | 1 |

## Client Sample ID: BH01
**Date Collected: 09/14/22 10:10**
**Date Received: 09/14/22 16:34**
**Sample Depth: 4'**

## Lab Sample ID: 890-2965-2
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U *1 | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:27 | 1 |
| Toluene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:27 | 1 |
| Ethylbenzene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:27 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U *- | 0.00399 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:27 | 1 |
| o-Xylene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:27 | 1 |
| Xylenes, Total | <0.00399 | U *- | 0.00399 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 16:27* | *1* |

Eurofins Carlsbad

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH01

**Date Collected: 09/14/22 10:10**
**Date Received: 09/14/22 16:34**
**Sample Depth: 4'**

## Lab Sample ID: 890-2965-2

**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *111* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 16:27* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 22:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 22:36 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 22:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *87* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 22:36* | *1* |
| *o-Terphenyl* | *93* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 22:36* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **727** | | 4.95 | | mg/Kg | | | 09/20/22 23:01 | 1 |

## Client Sample ID: BH02

**Date Collected: 09/14/22 10:20**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-2965-3

**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U *1 | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:48 | 1 |
| Toluene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:48 | 1 |
| Ethylbenzene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:48 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U *- | 0.00398 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:48 | 1 |
| o-Xylene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:48 | 1 |
| Xylenes, Total | <0.00398 | U *- | 0.00398 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 16:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *96* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 16:48* | *1* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 16:48* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

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# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:20**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-2965-3
**Matrix: Solid**

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 22:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 22:56 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 22:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *87* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 22:56* | *1* |
| *o-Terphenyl* | *93* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 22:56* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **871** | | 4.98 | | mg/Kg | | | 09/20/22 23:06 | 1 |

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:30**
**Date Received: 09/14/22 16:34**
**Sample Depth: 2'**

## Lab Sample ID: 890-2965-4
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U *1 | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:08 | 1 |
| Toluene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:08 | 1 |
| Ethylbenzene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:08 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U *- | 0.00398 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:08 | 1 |
| o-Xylene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:08 | 1 |
| Xylenes, Total | <0.00398 | U *- | 0.00398 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *89* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 17:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *120* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 17:08* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:16 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *82* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 23:16* | *1* |
| *o-Terphenyl* | *86* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 23:16* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:30**
**Date Received: 09/14/22 16:34**
**Sample Depth: 2'**

## Lab Sample ID: 890-2965-4
**Matrix: Solid**

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3910 | | 24.9 | | mg/Kg | | | 09/20/22 23:11 | 5 |

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:40**
**Date Received: 09/14/22 16:34**
**Sample Depth: 6'**

## Lab Sample ID: 890-2965-5
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U *1 | 0.00198 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:29 | 1 |
| Toluene | <0.00198 | U *- | 0.00198 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:29 | 1 |
| Ethylbenzene | <0.00198 | U *- | 0.00198 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:29 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U *- | 0.00396 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:29 | 1 |
| o-Xylene | <0.00198 | U *- | 0.00198 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:29 | 1 |
| Xylenes, Total | <0.00396 | U *- | 0.00396 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *96* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 17:29* | *1* |
| *1,4-Difluorobenzene (Surr)* | *110* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 17:29* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00396 | U | 0.00396 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:36 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *91* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 23:36* | *1* |
| *o-Terphenyl* | *97* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 23:36* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2110 | | 25.0 | | mg/Kg | | | 09/20/22 23:15 | 5 |

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:50**
**Date Received: 09/14/22 16:34**
**Sample Depth: 8'**

## Lab Sample ID: 890-2965-6
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *1 | 0.00201 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:49 | 1 |
| Toluene | <0.00201 | U *- | 0.00201 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:49 | 1 |
| Ethylbenzene | <0.00201 | U *- | 0.00201 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:49 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U *- | 0.00402 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:49 | 1 |
| o-Xylene | <0.00201 | U *- | 0.00201 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:49 | 1 |
| Xylenes, Total | <0.00402 | U *- | 0.00402 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 17:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 17:49* | *1* |
| *1,4-Difluorobenzene (Surr)* | *122* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 17:49* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:56 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 23:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *87* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 23:56* | *1* |
| *o-Terphenyl* | *90* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 23:56* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **193** | | 4.95 | | mg/Kg | | | 09/20/22 23:30 | 1 |

## Client Sample ID: BH03
**Date Collected: 09/14/22 11:00**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-2965-7
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U *1 | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:10 | 1 |
| Toluene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:10 | 1 |
| Ethylbenzene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:10 | 1 |
| m-Xylene & p-Xylene | <0.00401 | U *- | 0.00401 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:10 | 1 |
| o-Xylene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:10 | 1 |
| Xylenes, Total | <0.00401 | U *- | 0.00401 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 18:10* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH03
**Date Collected: 09/14/22 11:00**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-2965-7
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 18:10* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:16 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *82* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 00:16* | *1* |
| *o-Terphenyl* | *85* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 00:16* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **13.2** | | 4.98 | | mg/Kg | | | 09/20/22 23:35 | 1 |

## Client Sample ID: BH03
**Date Collected: 09/14/22 11:10**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

## Lab Sample ID: 890-2965-8
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U *1 | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:30 | 1 |
| Toluene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:30 | 1 |
| Ethylbenzene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:30 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U *- | 0.00399 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:30 | 1 |
| o-Xylene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:30 | 1 |
| Xylenes, Total | <0.00399 | U *- | 0.00399 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *81* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 18:30* | *1* |
| *1,4-Difluorobenzene (Surr)* | *113* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 18:30* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

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# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH03
**Date Collected: 09/14/22 11:10**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

## Lab Sample ID: 890-2965-8
**Matrix: Solid**

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:36 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *84* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 00:36* | *1* |
| *o-Terphenyl* | *90* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 00:36* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **13.5** | | 5.00 | | mg/Kg | | | 09/20/22 23:49 | 1 |

## Client Sample ID: BH04
**Date Collected: 09/14/22 11:20**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-2965-9
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U *1 | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:51 | 1 |
| Toluene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:51 | 1 |
| Ethylbenzene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:51 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U *- | 0.00398 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:51 | 1 |
| o-Xylene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:51 | 1 |
| Xylenes, Total | <0.00398 | U *- | 0.00398 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 18:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 18:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *114* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 18:51* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:56 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 00:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *94* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 00:56* | *1* |
| *o-Terphenyl* | *99* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 00:56* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH04
**Date Collected: 09/14/22 11:20**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

## Lab Sample ID: 890-2965-9
**Matrix: Solid**

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1420 | | 25.3 | | mg/Kg | | | 09/20/22 23:54 | 5 |

## Client Sample ID: BH04
**Date Collected: 09/14/22 11:30**
**Date Received: 09/14/22 16:34**
**Sample Depth: 4'**

## Lab Sample ID: 890-2965-10
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U *1 | 0.00201 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 19:12 | 1 |
| Toluene | <0.00201 | U *- | 0.00201 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 19:12 | 1 |
| Ethylbenzene | <0.00201 | U *- | 0.00201 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 19:12 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U *- | 0.00402 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 19:12 | 1 |
| o-Xylene | <0.00201 | U *- | 0.00201 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 19:12 | 1 |
| Xylenes, Total | <0.00402 | U *- | 0.00402 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 19:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *79* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 19:12* | *1* |
| *1,4-Difluorobenzene (Surr)* | *120* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 19:12* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 09/26/22 15:58 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 01:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 01:16 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 01:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *78* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 01:16* | *1* |
| *o-Terphenyl* | *80* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 01:16* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 342 | | 5.05 | | mg/Kg | | | 09/20/22 23:59 | 1 |

# Surrogate Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Method: 8021B - Volatile Organic Compounds (GC)

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | BFB1 (70-130) | DFBZ1 (70-130) |
| 890-2965-1 | BH01 | 95 | 111 |
| 890-2965-1 MS | BH01 | 82 | 109 |
| 890-2965-1 MSD | BH01 | 81 | 111 |
| 890-2965-2 | BH01 | 98 | 111 |
| 890-2965-3 | BH02 | 96 | 109 |
| 890-2965-4 | BH02 | 89 | 120 |
| 890-2965-5 | BH02 | 96 | 110 |
| 890-2965-6 | BH02 | 87 | 122 |
| 890-2965-7 | BH03 | 99 | 109 |
| 890-2965-8 | BH03 | 81 | 113 |
| 890-2965-9 | BH04 | 99 | 114 |
| 890-2965-10 | BH04 | 79 | 120 |
| LCS 880-35199/1-A | Lab Control Sample | 85 | 108 |
| LCSD 880-35199/2-A | Lab Control Sample Dup | 84 | 101 |
| MB 880-35199/5-A | Method Blank | 103 | 119 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO1 (70-130) | OTPH1 (70-130) |
| 890-2965-1 | BH01 | 91 | 92 |
| 890-2965-1 MS | BH01 | 81 | 76 |
| 890-2965-1 MSD | BH01 | 86 | 80 |
| 890-2965-2 | BH01 | 87 | 93 |
| 890-2965-3 | BH02 | 87 | 93 |
| 890-2965-4 | BH02 | 82 | 86 |
| 890-2965-5 | BH02 | 91 | 97 |
| 890-2965-6 | BH02 | 87 | 90 |
| 890-2965-7 | BH03 | 82 | 85 |
| 890-2965-8 | BH03 | 84 | 90 |
| 890-2965-9 | BH04 | 94 | 99 |
| 890-2965-10 | BH04 | 78 | 80 |
| LCS 880-34681/2-A | Lab Control Sample | 85 | 92 |
| LCSD 880-34681/3-A | Lab Control Sample Dup | 86 | 96 |
| MB 880-34681/1-A | Method Blank | 116 | 119 |

**Surrogate Legend**

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Method: 8021B - Volatile Organic Compounds (GC)

### Lab Sample ID: MB 880-35199/5-A
### Matrix: Solid
### Analysis Batch: 35329

### Client Sample ID: Method Blank
### Prep Type: Total/NA
### Prep Batch: 35199

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 15:38 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 15:38 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 15:38 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 15:38 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 15:38 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 09/22/22 15:49 | 09/24/22 15:38 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 15:38* | *1* |
| *1,4-Difluorobenzene (Surr)* | *119* | | *70 - 130* | *09/22/22 15:49* | *09/24/22 15:38* | *1* |

### Lab Sample ID: LCS 880-35199/1-A
### Matrix: Solid
### Analysis Batch: 35329

### Client Sample ID: Lab Control Sample
### Prep Type: Total/NA
### Prep Batch: 35199

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.1041 | | mg/Kg | | 104 | 70 - 130 |
| Toluene | 0.100 | 0.08298 | | mg/Kg | | 83 | 70 - 130 |
| Ethylbenzene | 0.100 | 0.07948 | | mg/Kg | | 79 | 70 - 130 |
| m-Xylene & p-Xylene | 0.200 | 0.1620 | | mg/Kg | | 81 | 70 - 130 |
| o-Xylene | 0.100 | 0.08134 | | mg/Kg | | 81 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *85* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* |

### Lab Sample ID: LCSD 880-35199/2-A
### Matrix: Solid
### Analysis Batch: 35329

### Client Sample ID: Lab Control Sample Dup
### Prep Type: Total/NA
### Prep Batch: 35199

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.07166 | *1 | mg/Kg | | 72 | 70 - 130 | 37 | 35 |
| Toluene | 0.100 | 0.05980 | *- | mg/Kg | | 60 | 70 - 130 | 32 | 35 |
| Ethylbenzene | 0.100 | 0.05660 | *- | mg/Kg | | 57 | 70 - 130 | 34 | 35 |
| m-Xylene & p-Xylene | 0.200 | 0.1165 | *- | mg/Kg | | 58 | 70 - 130 | 33 | 35 |
| o-Xylene | 0.100 | 0.06050 | *- | mg/Kg | | 60 | 70 - 130 | 29 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *84* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* |

### Lab Sample ID: 890-2965-1 MS
### Matrix: Solid
### Analysis Batch: 35329

### Client Sample ID: BH01
### Prep Type: Total/NA
### Prep Batch: 35199

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U *1 | 0.0998 | 0.09137 | | mg/Kg | | 91 | 70 - 130 |
| Toluene | <0.00202 | U *- | 0.0998 | 0.07416 | | mg/Kg | | 73 | 70 - 130 |

# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

**Lab Sample ID: 890-2965-1 MS**
**Matrix: Solid**
**Analysis Batch: 35329**

**Client Sample ID: BH01**
**Prep Type: Total/NA**
**Prep Batch: 35199**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00202 | U *- F1 | 0.0998 | 0.06651 | F1 | mg/Kg | | 66 | 70 - 130 |
| m-Xylene & p-Xylene | <0.00404 | U *- F1 | 0.200 | 0.1323 | F1 | mg/Kg | | 65 | 70 - 130 |
| o-Xylene | <0.00202 | U *- F1 | 0.0998 | 0.06601 | F1 | mg/Kg | | 65 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *82* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* |

**Lab Sample ID: 890-2965-1 MSD**
**Matrix: Solid**
**Analysis Batch: 35329**

**Client Sample ID: BH01**
**Prep Type: Total/NA**
**Prep Batch: 35199**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00202 | U *1 | 0.100 | 0.09751 | | mg/Kg | | 96 | 70 - 130 | 7 | 35 |
| Toluene | <0.00202 | U *- | 0.100 | 0.07203 | | mg/Kg | | 70 | 70 - 130 | 3 | 35 |
| Ethylbenzene | <0.00202 | U *- F1 | 0.100 | 0.06391 | F1 | mg/Kg | | 63 | 70 - 130 | 4 | 35 |
| m-Xylene & p-Xylene | <0.00404 | U *- F1 | 0.201 | 0.1265 | F1 | mg/Kg | | 62 | 70 - 130 | 5 | 35 |
| o-Xylene | <0.00202 | U *- F1 | 0.100 | 0.06225 | F1 | mg/Kg | | 61 | 70 - 130 | 6 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *81* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *111* | | *70 - 130* |

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 880-34681/1-A**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 20:31 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 20:31 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 20:31 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *116* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 20:31* | *1* |
| *o-Terphenyl* | *119* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 20:31* | *1* |

**Lab Sample ID: LCS 880-34681/2-A**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 917.5 | | mg/Kg | | 92 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 1000 | 836.1 | | mg/Kg | | 84 | 70 - 130 |

# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: LCS 880-34681/2-A**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 85 | | 70 - 130 |
| o-Terphenyl | 92 | | 70 - 130 |

**Lab Sample ID: LCSD 880-34681/3-A**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 893.4 | | mg/Kg | | 89 | 70 - 130 | 3 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 813.5 | | mg/Kg | | 81 | 70 - 130 | 3 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 86 | | 70 - 130 |
| o-Terphenyl | 96 | | 70 - 130 |

**Lab Sample ID: 890-2965-1 MS**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: BH01**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 996 | 1291 | | mg/Kg | | 126 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U F1 | 996 | 664.2 | F1 | mg/Kg | | 67 | 70 - 130 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 81 | | 70 - 130 |
| o-Terphenyl | 76 | | 70 - 130 |

**Lab Sample ID: 890-2965-1 MSD**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: BH01**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 999 | 1261 | | mg/Kg | | 123 | 70 - 130 | 2 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U F1 | 999 | 717.2 | | mg/Kg | | 72 | 70 - 130 | 8 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 86 | | 70 - 130 |
| o-Terphenyl | 80 | | 70 - 130 |

# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-34663/1-A**
**Matrix: Solid**
**Analysis Batch: 34948**

**Client Sample ID: Method Blank**
**Prep Type: Soluble**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 09/20/22 21:53 | 1 |

**Lab Sample ID: LCS 880-34663/2-A**
**Matrix: Solid**
**Analysis Batch: 34948**

**Client Sample ID: Lab Control Sample**
**Prep Type: Soluble**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 249.0 | | mg/Kg | | 100 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-34663/3-A**
**Matrix: Solid**
**Analysis Batch: 34948**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Soluble**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 250.1 | | mg/Kg | | 100 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 890-2965-5 MS**
**Matrix: Solid**
**Analysis Batch: 34948**

**Client Sample ID: BH02**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2110 | | 1250 | 3412 | | mg/Kg | | 104 | 90 - 110 | | |

**Lab Sample ID: 890-2965-5 MSD**
**Matrix: Solid**
**Analysis Batch: 34948**

**Client Sample ID: BH02**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2110 | | 1250 | 3406 | | mg/Kg | | 104 | 90 - 110 | 0 | 20 |

# QC Association Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## GC VOA

### Prep Batch: 35199

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Total/NA | Solid | 5035 | |
| 890-2965-2 | BH01 | Total/NA | Solid | 5035 | |
| 890-2965-3 | BH02 | Total/NA | Solid | 5035 | |
| 890-2965-4 | BH02 | Total/NA | Solid | 5035 | |
| 890-2965-5 | BH02 | Total/NA | Solid | 5035 | |
| 890-2965-6 | BH02 | Total/NA | Solid | 5035 | |
| 890-2965-7 | BH03 | Total/NA | Solid | 5035 | |
| 890-2965-8 | BH03 | Total/NA | Solid | 5035 | |
| 890-2965-9 | BH04 | Total/NA | Solid | 5035 | |
| 890-2965-10 | BH04 | Total/NA | Solid | 5035 | |
| MB 880-35199/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-35199/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-35199/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 890-2965-1 MS | BH01 | Total/NA | Solid | 5035 | |
| 890-2965-1 MSD | BH01 | Total/NA | Solid | 5035 | |

### Analysis Batch: 35329

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-2 | BH01 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-3 | BH02 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-4 | BH02 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-5 | BH02 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-6 | BH02 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-7 | BH03 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-8 | BH03 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-9 | BH04 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-10 | BH04 | Total/NA | Solid | 8021B | 35199 |
| MB 880-35199/5-A | Method Blank | Total/NA | Solid | 8021B | 35199 |
| LCS 880-35199/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 35199 |
| LCSD 880-35199/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 35199 |
| 890-2965-1 MS | BH01 | Total/NA | Solid | 8021B | 35199 |
| 890-2965-1 MSD | BH01 | Total/NA | Solid | 8021B | 35199 |

### Analysis Batch: 35433

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Total/NA | Solid | Total BTEX | |
| 890-2965-2 | BH01 | Total/NA | Solid | Total BTEX | |
| 890-2965-3 | BH02 | Total/NA | Solid | Total BTEX | |
| 890-2965-4 | BH02 | Total/NA | Solid | Total BTEX | |
| 890-2965-5 | BH02 | Total/NA | Solid | Total BTEX | |
| 890-2965-6 | BH02 | Total/NA | Solid | Total BTEX | |
| 890-2965-7 | BH03 | Total/NA | Solid | Total BTEX | |
| 890-2965-8 | BH03 | Total/NA | Solid | Total BTEX | |
| 890-2965-9 | BH04 | Total/NA | Solid | Total BTEX | |
| 890-2965-10 | BH04 | Total/NA | Solid | Total BTEX | |

# QC Association Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## GC Semi VOA

### Prep Batch: 34681

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-2 | BH01 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-3 | BH02 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-4 | BH02 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-5 | BH02 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-6 | BH02 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-7 | BH03 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-8 | BH03 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-9 | BH04 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-10 | BH04 | Total/NA | Solid | 8015NM Prep | |
| MB 880-34681/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-34681/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-34681/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 890-2965-1 MS | BH01 | Total/NA | Solid | 8015NM Prep | |
| 890-2965-1 MSD | BH01 | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 34714

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-2 | BH01 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-3 | BH02 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-4 | BH02 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-5 | BH02 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-6 | BH02 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-7 | BH03 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-8 | BH03 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-9 | BH04 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-10 | BH04 | Total/NA | Solid | 8015B NM | 34681 |
| MB 880-34681/1-A | Method Blank | Total/NA | Solid | 8015B NM | 34681 |
| LCS 880-34681/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 34681 |
| LCSD 880-34681/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-1 MS | BH01 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-1 MSD | BH01 | Total/NA | Solid | 8015B NM | 34681 |

### Analysis Batch: 34867

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Total/NA | Solid | 8015 NM | |
| 890-2965-2 | BH01 | Total/NA | Solid | 8015 NM | |
| 890-2965-3 | BH02 | Total/NA | Solid | 8015 NM | |
| 890-2965-4 | BH02 | Total/NA | Solid | 8015 NM | |
| 890-2965-5 | BH02 | Total/NA | Solid | 8015 NM | |
| 890-2965-6 | BH02 | Total/NA | Solid | 8015 NM | |
| 890-2965-7 | BH03 | Total/NA | Solid | 8015 NM | |
| 890-2965-8 | BH03 | Total/NA | Solid | 8015 NM | |
| 890-2965-9 | BH04 | Total/NA | Solid | 8015 NM | |
| 890-2965-10 | BH04 | Total/NA | Solid | 8015 NM | |

# QC Association Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## HPLC/IC

### Leach Batch: 34663

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Soluble | Solid | DI Leach | |
| 890-2965-2 | BH01 | Soluble | Solid | DI Leach | |
| 890-2965-3 | BH02 | Soluble | Solid | DI Leach | |
| 890-2965-4 | BH02 | Soluble | Solid | DI Leach | |
| 890-2965-5 | BH02 | Soluble | Solid | DI Leach | |
| 890-2965-6 | BH02 | Soluble | Solid | DI Leach | |
| 890-2965-7 | BH03 | Soluble | Solid | DI Leach | |
| 890-2965-8 | BH03 | Soluble | Solid | DI Leach | |
| 890-2965-9 | BH04 | Soluble | Solid | DI Leach | |
| 890-2965-10 | BH04 | Soluble | Solid | DI Leach | |
| MB 880-34663/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-34663/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-34663/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 890-2965-5 MS | BH02 | Soluble | Solid | DI Leach | |
| 890-2965-5 MSD | BH02 | Soluble | Solid | DI Leach | |

### Analysis Batch: 34948

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-2 | BH01 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-3 | BH02 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-4 | BH02 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-5 | BH02 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-6 | BH02 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-7 | BH03 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-8 | BH03 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-9 | BH04 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-10 | BH04 | Soluble | Solid | 300.0 | 34663 |
| MB 880-34663/1-A | Method Blank | Soluble | Solid | 300.0 | 34663 |
| LCS 880-34663/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 34663 |
| LCSD 880-34663/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 34663 |
| 890-2965-5 MS | BH02 | Soluble | Solid | 300.0 | 34663 |
| 890-2965-5 MSD | BH02 | Soluble | Solid | 300.0 | 34663 |

# Lab Chronicle

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH01
**Date Collected: 09/14/22 10:00**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-1
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.95 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 16:07 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/18/22 21:34 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/20/22 22:56 | CH | EET MID |

## Client Sample ID: BH01
**Date Collected: 09/14/22 10:10**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-2
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.01 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 16:27 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/18/22 22:36 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/20/22 23:01 | CH | EET MID |

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:20**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-3
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.03 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 16:48 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/18/22 22:56 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/20/22 23:06 | CH | EET MID |

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:30**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-4
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.02 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 17:08 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |

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# Lab Chronicle

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:30**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-4
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/18/22 23:16 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 34948 | 09/20/22 23:11 | CH | EET MID |

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:40**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-5
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.05 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 17:29 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/18/22 23:36 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 34948 | 09/20/22 23:15 | CH | EET MID |

## Client Sample ID: BH02
**Date Collected: 09/14/22 10:50**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-6
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.97 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 17:49 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/18/22 23:56 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/20/22 23:30 | CH | EET MID |

## Client Sample ID: BH03
**Date Collected: 09/14/22 11:00**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-7
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.99 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 18:10 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 00:16 | SM | EET MID |

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# Lab Chronicle

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Client Sample ID: BH03
**Date Collected: 09/14/22 11:00**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-7
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/20/22 23:35 | CH | EET MID |

## Client Sample ID: BH03
**Date Collected: 09/14/22 11:10**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-8
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.01 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 18:30 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 00:36 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/20/22 23:49 | CH | EET MID |

## Client Sample ID: BH04
**Date Collected: 09/14/22 11:20**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-9
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.02 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 18:51 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 00:56 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | | | 34948 | 09/20/22 23:54 | CH | EET MID |

## Client Sample ID: BH04
**Date Collected: 09/14/22 11:30**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2965-10
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.97 g | 5 mL | 35199 | 09/22/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35329 | 09/24/22 19:12 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35433 | 09/26/22 15:58 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34867 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 01:16 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/20/22 23:59 | CH | EET MID |

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# Lab Chronicle

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# Accreditation/Certification Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

## Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704400-22-24 | 06-30-23 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 8015 NM | | Solid | Total TPH |
| Total BTEX | | Solid | Total BTEX |

# Method Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8021B | Volatile Organic Compounds (GC) | SW846 | EET MID |
| Total BTEX | Total BTEX Calculation | TAL SOP | EET MID |
| 8015 NM | Diesel Range Organics (DRO) (GC) | SW846 | EET MID |
| 8015B NM | Diesel Range Organics (DRO) (GC) | SW846 | EET MID |
| 300.0 | Anions, Ion Chromatography | MCAWW | EET MID |
| 5035 | Closed System Purge and Trap | SW846 | EET MID |
| 8015NM Prep | Microextraction | SW846 | EET MID |
| DI Leach | Deionized Water Leaching Procedure | ASTM | EET MID |

**Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# Sample Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2965-1
SDG: Rural Eddy NM

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Depth |
|---|---|---|---|---|---|
| 890-2965-1 | BH01 | Solid | 09/14/22 10:00 | 09/14/22 16:34 | 0.5' |
| 890-2965-2 | BH01 | Solid | 09/14/22 10:10 | 09/14/22 16:34 | 4' |
| 890-2965-3 | BH02 | Solid | 09/14/22 10:20 | 09/14/22 16:34 | 0.5' |
| 890-2965-4 | BH02 | Solid | 09/14/22 10:30 | 09/14/22 16:34 | 2' |
| 890-2965-5 | BH02 | Solid | 09/14/22 10:40 | 09/14/22 16:34 | 6' |
| 890-2965-6 | BH02 | Solid | 09/14/22 10:50 | 09/14/22 16:34 | 8' |
| 890-2965-7 | BH03 | Solid | 09/14/22 11:00 | 09/14/22 16:34 | 0.5' |
| 890-2965-8 | BH03 | Solid | 09/14/22 11:10 | 09/14/22 16:34 | 1' |
| 890-2965-9 | BH04 | Solid | 09/14/22 11:20 | 09/14/22 16:34 | 0.5' |
| 890-2965-10 | BH04 | Solid | 09/14/22 11:30 | 09/14/22 16:34 | 4' |

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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| | | | |
|---|---|---|---|
| Project Manager: | Joseph Hernandez | Bill to: (if different) | Jim Raley |
| Company Name: | Ensolum | Company Name: | WPX |
| Address: | 3122 National Parks HWY | Address: | 5315 Buena Vista Dr. |
| City, State ZIP: | Carlsbad, NM 88220 | City, State ZIP: | Carlsbad, NM 88220 |
| Phone: | 281-702-2329 | Email: | jhernandez@Ensolum.com, jim.raley@dvn.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | UCBH WW 3 | Turn Around | |
| Project Number: | 03A1987009 | ☑ Routine ☐ Rush | |
| Project Location: | Rural Eddy, NM | Due Date: | 5 Day TAT |
| Sampler's Name: | Gilbert Moreno | TAT starts the day received by the lab, if received by 4:30pm | |
| CC #: | 9030007583 | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes No | Wet Ice: | Yes No |
| Samples Received Intact: | Yes No | Thermometer ID: | TAM-00 |
| Cooler Custody Seals: | Yes No N/A | Correction Factor: | -0.3 |
| Sample Custody Seals: | Yes No N/A | Temperature Reading: | 5.2 |
| Total Containers: | | Corrected Temperature: | 4.8 |

**ANALYSIS REQUEST**

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | CHLORIDES (EPA: 300.0) | TPH (8015) | BTEX (8021 |
|---|---|---|---|---|---|---|---|---|---|
| BH01 | S | 9.14.22 | 10:00 | 0.5' | Grab/ | 1 | X | X | X |
| BH01 | S | 9.14.22 | 10:10 | 4' | Grab/ | 1 | X | X | X |
| BH02 | S | 9.14.22 | 10:20 | 0.5' | Grab/ | 1 | X | X | X |
| BH02 | S | 9.14.22 | 10:30 | 2' | Grab/ | 1 | X | X | X |
| BH02 | S | 9.14.22 | 10:40 | 6' | Grab/ | 1 | X | X | X |
| BH02 | S | 9.14.22 | 10:50 | 8' | Grab/ | 1 | X | X | X |
| BH03 | S | 9.14.22 | 11:00 | 0.5' | Grab/ | 1 | X | X | X |
| ~~BH03~~ | ~~S~~ | ~~9.14.22~~ | ~~11:10~~ | ~~1'~~ | ~~Grab/~~ | ~~1~~ | ~~X~~ | ~~X~~ | ~~X~~ |
| BH04 | S | 9.14.22 | 11:20 | 0.5' | Grab/ | 1 | X | X | X |
| BH04 | S | 9.14.22 | 11:30 | 4' | Grab/ | 1 | X | X | X |

890-2965 Chain of Custody

**Preservative Codes**

None: NO DI Water: $H_2O$
Cool: Cool MeOH: Me
HCL: HC $HNO_3$: HN
$H_2S0_4$: $H_2$ NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

**Sample Comments**

Incident ID
nAB1702454101

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | Amanda Stuft | 9/14/22 1634 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date 08/25/2020 Rev 2020 2

# Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2965-1
SDG Number: Rural Eddy NM

**Login Number: 2965**
**List Number: 1**
**Creator: Stutzman, Amanda**

**List Source: Eurofins Carlsbad**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |

# Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2965-1
SDG Number: Rural Eddy NM

**Login Number: 2965**
**List Number: 2**
**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**
**List Creation: 09/16/22 11:00 AM**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |

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# ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2966-1
Laboratory Sample Delivery Group: Rural Eddy NM
Client Project/Site: UCBH WW 3

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Devon Team

JKramer

*Authorized for release by:*
*9/26/2022 3:34:06 PM*

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com



This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum
Project/Site: UCBH WW 3

Laboratory Job ID: 890-2966-1
SDG: Rural Eddy NM

# Table of Contents

# Definitions/Glossary

Client: Ensolum Job ID: 890-2966-1
Project/Site: UCBH WW 3 SDG: Rural Eddy NM

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| F2 | MS/MSD RPD exceeds control limits |
| S1+ | Surrogate recovery exceeds control limits, high biased. |
| U | Indicates the analyte was analyzed for but not detected. |

### GC Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| U | Indicates the analyte was analyzed for but not detected. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD recovery exceeds control limits. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

# Case Narrative

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Job ID: 890-2966-1

**Laboratory: Eurofins Carlsbad**

**Narrative**

**Job Narrative**
**890-2966-1**

**Receipt**
The samples were received on 9/14/2022 4:34 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

**GC VOA**
Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-2953-A-61-E MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-35198 and analytical batch 880-35227 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**GC Semi VOA**
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34681 and analytical batch 880-34714 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**HPLC/IC**
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-34668 and analytical batch 880-34975 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH05

**Lab Sample ID: 890-2966-1**
**Matrix: Solid**
**Date Collected: 09/14/22 11:40**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.00199 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 02:59 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 02:59 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 02:59 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 02:59 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 02:59 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 02:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 02:59* | *1* |
| *1,4-Difluorobenzene (Surr)* | *87* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 02:59* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00398 | U | 0.00398 | | mg/Kg | | | 09/26/22 16:09 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <49.9 | U | 49.9 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 01:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 01:56 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 01:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *81* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 01:56* | *1* |
| *o-Terphenyl* | *85* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 01:56* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **11.9** | | 4.97 | | mg/Kg | | | 09/21/22 10:01 | 1 |

## Client Sample ID: BH05

**Lab Sample ID: 890-2966-2**
**Matrix: Solid**
**Date Collected: 09/14/22 11:50**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:19 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:19 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:19 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:19 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:19 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 03:19* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH05

**Date Collected: 09/14/22 11:50**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

**Lab Sample ID: 890-2966-2**
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *86* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 03:19* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00402 | U | 0.00402 | | mg/Kg | | | 09/26/22 16:09 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:16 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *82* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 02:16* | *1* |
| *o-Terphenyl* | *85* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 02:16* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **10.1** | | 4.99 | | mg/Kg | | | 09/21/22 00:05 | 1 |

## Client Sample ID: BH06

**Date Collected: 09/14/22 12:00**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-2966-3**
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:40 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:40 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:40 | 1 |
| m-Xylene & p-Xylene | <0.00401 | U | 0.00401 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:40 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:40 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 03:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 03:40* | *1* |
| *1,4-Difluorobenzene (Surr)* | *78* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 03:40* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 09/26/22 16:09 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH06

**Date Collected: 09/14/22 12:00**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

**Lab Sample ID: 890-2966-3**
**Matrix: Solid**

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:36 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *81* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 02:36* | *1* |
| *o-Terphenyl* | *85* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 02:36* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **24.3** | | 5.00 | | mg/Kg | | | 09/21/22 00:10 | 1 |

## Client Sample ID: BH06

**Date Collected: 09/14/22 12:10**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

**Lab Sample ID: 890-2966-4**
**Matrix: Solid**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:00 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:00 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:00 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:00 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:00 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *118* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 04:00* | *1* |
| *1,4-Difluorobenzene (Surr)* | *89* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 04:00* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 09/26/22 16:09 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:56 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 02:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *81* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 02:56* | *1* |
| *o-Terphenyl* | *83* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 02:56* | *1* |

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH06

**Lab Sample ID: 890-2966-4**
**Matrix: Solid**
**Date Collected: 09/14/22 12:10**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 26.8 | | 5.01 | | mg/Kg | | | 09/21/22 00:15 | 1 |

## Client Sample ID: BH07

**Lab Sample ID: 890-2966-5**
**Matrix: Solid**
**Date Collected: 09/14/22 12:20**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U | 0.00198 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:21 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:21 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:21 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U | 0.00396 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:21 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:21 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *115* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 04:21* | *1* |
| *1,4-Difluorobenzene (Surr)* | *85* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 04:21* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00396 | U | 0.00396 | | mg/Kg | | | 09/26/22 16:09 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:16 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *94* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 03:16* | *1* |
| *o-Terphenyl* | *99* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 03:16* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 117 | | 4.96 | | mg/Kg | | | 09/21/22 13:39 | 1 |

# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH07

**Lab Sample ID: 890-2966-6**
**Matrix: Solid**
**Date Collected: 09/14/22 12:30**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:41 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:41 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:41 | 1 |
| m-Xylene & p-Xylene | <0.00401 | U | 0.00401 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:41 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:41 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 04:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 04:41* | *1* |
| *1,4-Difluorobenzene (Surr)* | *86* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 04:41* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 09/26/22 16:09 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:36 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:36 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *94* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 03:36* | *1* |
| *o-Terphenyl* | *101* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 03:36* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **49.9** | | 5.05 | | mg/Kg | | | 09/21/22 10:47 | 1 |

## Client Sample ID: BH08

**Lab Sample ID: 890-2966-7**
**Matrix: Solid**
**Date Collected: 09/14/22 12:40**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:02 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:02 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:02 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:02 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:02 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *119* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 05:02* | *1* |

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# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH08

**Lab Sample ID: 890-2966-7**
**Matrix: Solid**
**Date Collected: 09/14/22 12:40**
**Date Received: 09/14/22 16:34**
**Sample Depth: 0.5'**

### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 05:02* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00399 | U | 0.00399 | | mg/Kg | | | 09/26/22 16:09 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:56 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:56 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 03:56 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *82* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 03:56* | *1* |
| *o-Terphenyl* | *84* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 03:56* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **10.5** | | 4.98 | | mg/Kg | | | 09/21/22 10:53 | 1 |

## Client Sample ID: BH08

**Lab Sample ID: 890-2966-8**
**Matrix: Solid**
**Date Collected: 09/14/22 12:50**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

### Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:22 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:22 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:22 | 1 |
| m-Xylene & p-Xylene | <0.00401 | U | 0.00401 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:22 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:22 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 09/22/22 15:35 | 09/24/22 05:22 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *109* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 05:22* | *1* |
| *1,4-Difluorobenzene (Surr)* | *74* | | *70 - 130* | *09/22/22 15:35* | *09/24/22 05:22* | *1* |

### Method: Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.00401 | U | 0.00401 | | mg/Kg | | | 09/26/22 16:09 | 1 |

### Method: 8015 NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 09/19/22 15:34 | 1 |

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# Client Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH08

**Date Collected: 09/14/22 12:50**
**Date Received: 09/14/22 16:34**
**Sample Depth: 1'**

## Lab Sample ID: 890-2966-8

**Matrix: Solid**

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 04:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 04:16 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/19/22 04:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *80* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 04:16* | *1* |
| *o-Terphenyl* | *84* | | *70 - 130* | *09/16/22 13:56* | *09/19/22 04:16* | *1* |

### Method: 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **12.1** | | 5.00 | | mg/Kg | | | 09/21/22 11:00 | 1 |

# Surrogate Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Method: 8021B - Volatile Organic Compounds (GC)

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | BFB1 (70-130) | DFBZ1 (70-130) |
| 890-2953-A-61-E MS | Matrix Spike | 134 S1+ | 88 |
| 890-2953-A-61-F MSD | Matrix Spike Duplicate | 122 | 107 |
| 890-2966-1 | BH05 | 114 | 87 |
| 890-2966-2 | BH05 | 113 | 86 |
| 890-2966-3 | BH06 | 104 | 78 |
| 890-2966-4 | BH06 | 118 | 89 |
| 890-2966-5 | BH07 | 115 | 85 |
| 890-2966-6 | BH07 | 113 | 86 |
| 890-2966-7 | BH08 | 119 | 91 |
| 890-2966-8 | BH08 | 109 | 74 |
| LCS 880-35198/1-A | Lab Control Sample | 120 | 109 |
| LCSD 880-35198/2-A | Lab Control Sample Dup | 117 | 107 |
| MB 880-35106/5-A | Method Blank | 100 | 82 |
| MB 880-35198/5-A | Method Blank | 98 | 78 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO1 (70-130) | OTPH1 (70-130) |
| 890-2965-A-1-C MS | Matrix Spike | 81 | 76 |
| 890-2965-A-1-D MSD | Matrix Spike Duplicate | 86 | 80 |
| 890-2966-1 | BH05 | 81 | 85 |
| 890-2966-2 | BH05 | 82 | 85 |
| 890-2966-3 | BH06 | 81 | 85 |
| 890-2966-4 | BH06 | 81 | 83 |
| 890-2966-5 | BH07 | 94 | 99 |
| 890-2966-6 | BH07 | 94 | 101 |
| 890-2966-7 | BH08 | 82 | 84 |
| 890-2966-8 | BH08 | 80 | 84 |
| LCS 880-34681/2-A | Lab Control Sample | 85 | 92 |
| LCSD 880-34681/3-A | Lab Control Sample Dup | 86 | 96 |
| MB 880-34681/1-A | Method Blank | 116 | 119 |

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Method: 8021B - Volatile Organic Compounds (GC)

**Lab Sample ID: MB 880-35106/5-A**
**Matrix: Solid**
**Analysis Batch: 35227**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 35106**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/21/22 15:42 | 09/23/22 10:54 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/21/22 15:42 | 09/23/22 10:54 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/21/22 15:42 | 09/23/22 10:54 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 09/21/22 15:42 | 09/23/22 10:54 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/21/22 15:42 | 09/23/22 10:54 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 09/21/22 15:42 | 09/23/22 10:54 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* | *09/21/22 15:42* | *09/23/22 10:54* | *1* |
| *1,4-Difluorobenzene (Surr)* | *82* | | *70 - 130* | *09/21/22 15:42* | *09/23/22 10:54* | *1* |

**Lab Sample ID: MB 880-35198/5-A**
**Matrix: Solid**
**Analysis Batch: 35227**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 35198**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/23/22 21:29 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/23/22 21:29 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/23/22 21:29 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 09/22/22 15:35 | 09/23/22 21:29 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 09/22/22 15:35 | 09/23/22 21:29 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 09/22/22 15:35 | 09/23/22 21:29 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | *09/22/22 15:35* | *09/23/22 21:29* | *1* |
| *1,4-Difluorobenzene (Surr)* | *78* | | *70 - 130* | *09/22/22 15:35* | *09/23/22 21:29* | *1* |

**Lab Sample ID: LCS 880-35198/1-A**
**Matrix: Solid**
**Analysis Batch: 35227**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 35198**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.09191 | | mg/Kg | | 92 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.08545 | | mg/Kg | | 85 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.09090 | | mg/Kg | | 91 | 70 - 130 | | |
| m-Xylene & p-Xylene | | | 0.200 | 0.1922 | | mg/Kg | | 96 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.1086 | | mg/Kg | | 109 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *120* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* |

**Lab Sample ID: LCSD 880-35198/2-A**
**Matrix: Solid**
**Analysis Batch: 35227**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 35198**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.08728 | | mg/Kg | | 87 | 70 - 130 | 5 | 35 |

# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

**Lab Sample ID: LCSD 880-35198/2-A**
**Matrix: Solid**
**Analysis Batch: 35227**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 35198**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Toluene | | | 0.100 | 0.08104 | | mg/Kg | | 81 | 70 - 130 | 5 | 35 |
| Ethylbenzene | | | 0.100 | 0.08609 | | mg/Kg | | 86 | 70 - 130 | 5 | 35 |
| m-Xylene & p-Xylene | | | 0.200 | 0.1778 | | mg/Kg | | 89 | 70 - 130 | 8 | 35 |
| o-Xylene | | | 0.100 | 0.1069 | | mg/Kg | | 107 | 70 - 130 | 2 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *117* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* |

**Lab Sample ID: 890-2953-A-61-E MS**
**Matrix: Solid**
**Analysis Batch: 35227**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 35198**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U F2 F1 | 0.100 | 0.03739 | F1 | mg/Kg | | 37 | 70 - 130 |
| Toluene | <0.00201 | U F2 F1 | 0.100 | 0.04389 | F1 | mg/Kg | | 44 | 70 - 130 |
| Ethylbenzene | <0.00201 | U F2 F1 | 0.100 | 0.05197 | F1 | mg/Kg | | 52 | 70 - 130 |
| m-Xylene & p-Xylene | <0.00402 | U F2 F1 | 0.201 | 0.09854 | F1 | mg/Kg | | 49 | 70 - 130 |
| o-Xylene | <0.00201 | U F2 F1 | 0.100 | 0.05897 | F1 | mg/Kg | | 59 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *134* | *S1+* | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *88* | | *70 - 130* |

**Lab Sample ID: 890-2953-A-61-F MSD**
**Matrix: Solid**
**Analysis Batch: 35227**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 35198**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U F2 F1 | 0.0990 | 0.06926 | F2 | mg/Kg | | 70 | 70 - 130 | 60 | 35 |
| Toluene | <0.00201 | U F2 F1 | 0.0990 | 0.06230 | F1 | mg/Kg | | 63 | 70 - 130 | 35 | 35 |
| Ethylbenzene | <0.00201 | U F2 F1 | 0.0990 | 0.06203 | F1 | mg/Kg | | 63 | 70 - 130 | 18 | 35 |
| m-Xylene & p-Xylene | <0.00402 | U F2 F1 | 0.198 | 0.1235 | F1 | mg/Kg | | 62 | 70 - 130 | 22 | 35 |
| o-Xylene | <0.00201 | U F2 F1 | 0.0990 | 0.07774 | | mg/Kg | | 79 | 70 - 130 | 27 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *122* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* |

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 880-34681/1-A**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 20:31 | 1 |

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# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: MB 880-34681/1-A**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 20:31 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 09/16/22 13:56 | 09/18/22 20:31 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *116* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 20:31* | *1* |
| *o-Terphenyl* | *119* | | *70 - 130* | *09/16/22 13:56* | *09/18/22 20:31* | *1* |

**Lab Sample ID: LCS 880-34681/2-A**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 917.5 | | mg/Kg | | 92 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 1000 | 836.1 | | mg/Kg | | 84 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *85* | | *70 - 130* |
| *o-Terphenyl* | *92* | | *70 - 130* |

**Lab Sample ID: LCSD 880-34681/3-A**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 893.4 | | mg/Kg | | 89 | 70 - 130 | 3 | 20 |
| Diesel Range Organics (Over C10-C28) | 1000 | 813.5 | | mg/Kg | | 81 | 70 - 130 | 3 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *86* | | *70 - 130* |
| *o-Terphenyl* | *96* | | *70 - 130* |

**Lab Sample ID: 890-2965-A-1-C MS**
**Matrix: Solid**
**Analysis Batch: 34714**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 34681**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 996 | 1291 | | mg/Kg | | 126 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U F1 | 996 | 664.2 | F1 | mg/Kg | | 67 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *81* | | *70 - 130* |
| *o-Terphenyl* | *76* | | *70 - 130* |

# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: 890-2965-A-1-D MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 34714** — **Prep Batch: 34681**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 999 | 1261 | | mg/Kg | | 123 | 70 - 130 | 2 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U F1 | 999 | 717.2 | | mg/Kg | | 72 | 70 - 130 | 8 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *86* | | *70 - 130* |
| *o-Terphenyl* | *80* | | *70 - 130* |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-34663/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 34948**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 09/20/22 21:53 | 1 |

**Lab Sample ID: LCS 880-34663/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 34948**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 250 | 249.0 | | mg/Kg | | 100 | 90 - 110 |

**Lab Sample ID: LCSD 880-34663/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 34948**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 250 | 250.1 | | mg/Kg | | 100 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 890-2964-A-1-B MS** — **Client Sample ID: Matrix Spike**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 34948**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 257 | | 250 | 497.5 | | mg/Kg | | 96 | 90 - 110 |

**Lab Sample ID: 890-2964-A-1-C MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 34948**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 257 | | 250 | 497.5 | | mg/Kg | | 96 | 90 - 110 | 0 | 20 |

# QC Sample Results

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MB 880-34668/1-A**
**Matrix: Solid**
**Analysis Batch: 34975**

**Client Sample ID: Method Blank**
**Prep Type: Soluble**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 09/21/22 09:26 | 1 |

**Lab Sample ID: LCS 880-34668/2-A**
**Matrix: Solid**
**Analysis Batch: 34975**

**Client Sample ID: Lab Control Sample**
**Prep Type: Soluble**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 252.2 | | mg/Kg | | 101 | 90 - 110 | | |

**Lab Sample ID: LCSD 880-34668/3-A**
**Matrix: Solid**
**Analysis Batch: 34975**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Soluble**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 250 | 252.9 | | mg/Kg | | 101 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 890-2967-A-3-B MS**
**Matrix: Solid**
**Analysis Batch: 34975**

**Client Sample ID: Matrix Spike**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 411 | F1 | 250 | 639.6 | | mg/Kg | | 91 | 90 - 110 | | |

**Lab Sample ID: 890-2967-A-3-C MSD**
**Matrix: Solid**
**Analysis Batch: 34975**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 411 | F1 | 250 | 718.2 | F1 | mg/Kg | | 123 | 90 - 110 | 12 | 20 |

# QC Association Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## GC VOA

### Prep Batch: 35106

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-35106/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Prep Batch: 35198

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Total/NA | Solid | 5035 | |
| 890-2966-2 | BH05 | Total/NA | Solid | 5035 | |
| 890-2966-3 | BH06 | Total/NA | Solid | 5035 | |
| 890-2966-4 | BH06 | Total/NA | Solid | 5035 | |
| 890-2966-5 | BH07 | Total/NA | Solid | 5035 | |
| 890-2966-6 | BH07 | Total/NA | Solid | 5035 | |
| 890-2966-7 | BH08 | Total/NA | Solid | 5035 | |
| 890-2966-8 | BH08 | Total/NA | Solid | 5035 | |
| MB 880-35198/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-35198/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-35198/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 890-2953-A-61-E MS | Matrix Spike | Total/NA | Solid | 5035 | |
| 890-2953-A-61-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 5035 | |

### Analysis Batch: 35227

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Total/NA | Solid | 8021B | 35198 |
| 890-2966-2 | BH05 | Total/NA | Solid | 8021B | 35198 |
| 890-2966-3 | BH06 | Total/NA | Solid | 8021B | 35198 |
| 890-2966-4 | BH06 | Total/NA | Solid | 8021B | 35198 |
| 890-2966-5 | BH07 | Total/NA | Solid | 8021B | 35198 |
| 890-2966-6 | BH07 | Total/NA | Solid | 8021B | 35198 |
| 890-2966-7 | BH08 | Total/NA | Solid | 8021B | 35198 |
| 890-2966-8 | BH08 | Total/NA | Solid | 8021B | 35198 |
| MB 880-35106/5-A | Method Blank | Total/NA | Solid | 8021B | 35106 |
| MB 880-35198/5-A | Method Blank | Total/NA | Solid | 8021B | 35198 |
| LCS 880-35198/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 35198 |
| LCSD 880-35198/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 35198 |
| 890-2953-A-61-E MS | Matrix Spike | Total/NA | Solid | 8021B | 35198 |
| 890-2953-A-61-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 8021B | 35198 |

### Analysis Batch: 35443

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Total/NA | Solid | Total BTEX | |
| 890-2966-2 | BH05 | Total/NA | Solid | Total BTEX | |
| 890-2966-3 | BH06 | Total/NA | Solid | Total BTEX | |
| 890-2966-4 | BH06 | Total/NA | Solid | Total BTEX | |
| 890-2966-5 | BH07 | Total/NA | Solid | Total BTEX | |
| 890-2966-6 | BH07 | Total/NA | Solid | Total BTEX | |
| 890-2966-7 | BH08 | Total/NA | Solid | Total BTEX | |
| 890-2966-8 | BH08 | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Prep Batch: 34681

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## GC Semi VOA (Continued)

### Prep Batch: 34681 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-2 | BH05 | Total/NA | Solid | 8015NM Prep | |
| 890-2966-3 | BH06 | Total/NA | Solid | 8015NM Prep | |
| 890-2966-4 | BH06 | Total/NA | Solid | 8015NM Prep | |
| 890-2966-5 | BH07 | Total/NA | Solid | 8015NM Prep | |
| 890-2966-6 | BH07 | Total/NA | Solid | 8015NM Prep | |
| 890-2966-7 | BH08 | Total/NA | Solid | 8015NM Prep | |
| 890-2966-8 | BH08 | Total/NA | Solid | 8015NM Prep | |
| MB 880-34681/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-34681/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-34681/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 890-2965-A-1-C MS | Matrix Spike | Total/NA | Solid | 8015NM Prep | |
| 890-2965-A-1-D MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 34714

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2966-2 | BH05 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2966-3 | BH06 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2966-4 | BH06 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2966-5 | BH07 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2966-6 | BH07 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2966-7 | BH08 | Total/NA | Solid | 8015B NM | 34681 |
| 890-2966-8 | BH08 | Total/NA | Solid | 8015B NM | 34681 |
| MB 880-34681/1-A | Method Blank | Total/NA | Solid | 8015B NM | 34681 |
| LCS 880-34681/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 34681 |
| LCSD 880-34681/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-A-1-C MS | Matrix Spike | Total/NA | Solid | 8015B NM | 34681 |
| 890-2965-A-1-D MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015B NM | 34681 |

### Analysis Batch: 34868

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Total/NA | Solid | 8015 NM | |
| 890-2966-2 | BH05 | Total/NA | Solid | 8015 NM | |
| 890-2966-3 | BH06 | Total/NA | Solid | 8015 NM | |
| 890-2966-4 | BH06 | Total/NA | Solid | 8015 NM | |
| 890-2966-5 | BH07 | Total/NA | Solid | 8015 NM | |
| 890-2966-6 | BH07 | Total/NA | Solid | 8015 NM | |
| 890-2966-7 | BH08 | Total/NA | Solid | 8015 NM | |
| 890-2966-8 | BH08 | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 34663

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Soluble | Solid | DI Leach | |
| 890-2966-2 | BH05 | Soluble | Solid | DI Leach | |
| 890-2966-3 | BH06 | Soluble | Solid | DI Leach | |
| 890-2966-4 | BH06 | Soluble | Solid | DI Leach | |
| MB 880-34663/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-34663/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-34663/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## HPLC/IC (Continued)

### Leach Batch: 34663 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2964-A-1-B MS | Matrix Spike | Soluble | Solid | DI Leach | |
| 890-2964-A-1-C MSD | Matrix Spike Duplicate | Soluble | Solid | DI Leach | |

### Leach Batch: 34668

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-5 | BH07 | Soluble | Solid | DI Leach | |
| 890-2966-6 | BH07 | Soluble | Solid | DI Leach | |
| 890-2966-7 | BH08 | Soluble | Solid | DI Leach | |
| 890-2966-8 | BH08 | Soluble | Solid | DI Leach | |
| MB 880-34668/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-34668/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-34668/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 890-2967-A-3-B MS | Matrix Spike | Soluble | Solid | DI Leach | |
| 890-2967-A-3-C MSD | Matrix Spike Duplicate | Soluble | Solid | DI Leach | |

### Analysis Batch: 34948

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Soluble | Solid | 300.0 | 34663 |
| 890-2966-2 | BH05 | Soluble | Solid | 300.0 | 34663 |
| 890-2966-3 | BH06 | Soluble | Solid | 300.0 | 34663 |
| 890-2966-4 | BH06 | Soluble | Solid | 300.0 | 34663 |
| MB 880-34663/1-A | Method Blank | Soluble | Solid | 300.0 | 34663 |
| LCS 880-34663/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 34663 |
| LCSD 880-34663/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 34663 |
| 890-2964-A-1-B MS | Matrix Spike | Soluble | Solid | 300.0 | 34663 |
| 890-2964-A-1-C MSD | Matrix Spike Duplicate | Soluble | Solid | 300.0 | 34663 |

### Analysis Batch: 34975

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 890-2966-5 | BH07 | Soluble | Solid | 300.0 | 34668 |
| 890-2966-6 | BH07 | Soluble | Solid | 300.0 | 34668 |
| 890-2966-7 | BH08 | Soluble | Solid | 300.0 | 34668 |
| 890-2966-8 | BH08 | Soluble | Solid | 300.0 | 34668 |
| MB 880-34668/1-A | Method Blank | Soluble | Solid | 300.0 | 34668 |
| LCS 880-34668/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 34668 |
| LCSD 880-34668/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 34668 |
| 890-2967-A-3-B MS | Matrix Spike | Soluble | Solid | 300.0 | 34668 |
| 890-2967-A-3-C MSD | Matrix Spike Duplicate | Soluble | Solid | 300.0 | 34668 |

# Lab Chronicle

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH05
**Date Collected: 09/14/22 11:40**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2966-1
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.02 g | 5 mL | 35198 | 09/22/22 15:35 | MR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35227 | 09/24/22 02:59 | MR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35443 | 09/26/22 16:09 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34868 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 01:56 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/21/22 10:01 | CH | EET MID |

## Client Sample ID: BH05
**Date Collected: 09/14/22 11:50**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2966-2
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.97 g | 5 mL | 35198 | 09/22/22 15:35 | MR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35227 | 09/24/22 03:19 | MR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35443 | 09/26/22 16:09 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34868 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 02:16 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/21/22 00:05 | CH | EET MID |

## Client Sample ID: BH06
**Date Collected: 09/14/22 12:00**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2966-3
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.99 g | 5 mL | 35198 | 09/22/22 15:35 | MR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35227 | 09/24/22 03:40 | MR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35443 | 09/26/22 16:09 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34868 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 02:36 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/21/22 00:10 | CH | EET MID |

## Client Sample ID: BH06
**Date Collected: 09/14/22 12:10**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2966-4
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.01 g | 5 mL | 35198 | 09/22/22 15:35 | MR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35227 | 09/24/22 04:00 | MR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35443 | 09/26/22 16:09 | SM | EET MID |

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# Lab Chronicle

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH06
**Date Collected: 09/14/22 12:10**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2966-4
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 34868 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 02:56 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.99 g | 50 mL | 34663 | 09/16/22 10:37 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34948 | 09/21/22 00:15 | CH | EET MID |

## Client Sample ID: BH07
**Date Collected: 09/14/22 12:20**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2966-5
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.05 g | 5 mL | 35198 | 09/22/22 15:35 | MR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35227 | 09/24/22 04:21 | MR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35443 | 09/26/22 16:09 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34868 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 03:16 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 34668 | 09/16/22 10:45 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34975 | 09/21/22 13:39 | CH | EET MID |

## Client Sample ID: BH07
**Date Collected: 09/14/22 12:30**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2966-6
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.99 g | 5 mL | 35198 | 09/22/22 15:35 | MR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35227 | 09/24/22 04:41 | MR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35443 | 09/26/22 16:09 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34868 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 03:36 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 34668 | 09/16/22 10:45 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34975 | 09/21/22 10:47 | CH | EET MID |

## Client Sample ID: BH08
**Date Collected: 09/14/22 12:40**
**Date Received: 09/14/22 16:34**

## Lab Sample ID: 890-2966-7
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.01 g | 5 mL | 35198 | 09/22/22 15:35 | MR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35227 | 09/24/22 05:02 | MR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35443 | 09/26/22 16:09 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34868 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 03:56 | SM | EET MID |

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# Lab Chronicle

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Client Sample ID: BH08

**Date Collected: 09/14/22 12:40**
**Date Received: 09/14/22 16:34**

**Lab Sample ID: 890-2966-7**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 34668 | 09/16/22 10:45 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34975 | 09/21/22 10:53 | CH | EET MID |

## Client Sample ID: BH08

**Date Collected: 09/14/22 12:50**
**Date Received: 09/14/22 16:34**

**Lab Sample ID: 890-2966-8**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.99 g | 5 mL | 35198 | 09/22/22 15:35 | MR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 35227 | 09/24/22 05:22 | MR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 35443 | 09/26/22 16:09 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 34868 | 09/19/22 15:34 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 34681 | 09/16/22 13:56 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 34714 | 09/19/22 04:16 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 34668 | 09/16/22 10:45 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 34975 | 09/21/22 11:00 | CH | EET MID |

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# Accreditation/Certification Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

## Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704400-22-24 | 06-30-23 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 8015 NM | | Solid | Total TPH |
| Total BTEX | | Solid | Total BTEX |

# Method Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8021B | Volatile Organic Compounds (GC) | SW846 | EET MID |
| Total BTEX | Total BTEX Calculation | TAL SOP | EET MID |
| 8015 NM | Diesel Range Organics (DRO) (GC) | SW846 | EET MID |
| 8015B NM | Diesel Range Organics (DRO) (GC) | SW846 | EET MID |
| 300.0 | Anions, Ion Chromatography | MCAWW | EET MID |
| 5035 | Closed System Purge and Trap | SW846 | EET MID |
| 8015NM Prep | Microextraction | SW846 | EET MID |
| DI Leach | Deionized Water Leaching Procedure | ASTM | EET MID |

**Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# Sample Summary

Client: Ensolum
Project/Site: UCBH WW 3

Job ID: 890-2966-1
SDG: Rural Eddy NM

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Depth |
|---|---|---|---|---|---|
| 890-2966-1 | BH05 | Solid | 09/14/22 11:40 | 09/14/22 16:34 | 0.5' |
| 890-2966-2 | BH05 | Solid | 09/14/22 11:50 | 09/14/22 16:34 | 1' |
| 890-2966-3 | BH06 | Solid | 09/14/22 12:00 | 09/14/22 16:34 | 0.5' |
| 890-2966-4 | BH06 | Solid | 09/14/22 12:10 | 09/14/22 16:34 | 1' |
| 890-2966-5 | BH07 | Solid | 09/14/22 12:20 | 09/14/22 16:34 | 0.5' |
| 890-2966-6 | BH07 | Solid | 09/14/22 12:30 | 09/14/22 16:34 | 1' |
| 890-2966-7 | BH08 | Solid | 09/14/22 12:40 | 09/14/22 16:34 | 0.5' |
| 890-2966-8 | BH08 | Solid | 09/14/22 12:50 | 09/14/22 16:34 | 1' |

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

**Work Order No:** _____

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| | | | |
|---|---|---|---|
| Project Manager: | Joseph Hernandez | Bill to: (if different) | Jim Raley |
| Company Name: | Ensolum | Company Name: | WPX |
| Address: | 3122 National Parks HWY | Address: | 5315 Buena Vista Dr. |
| City, State ZIP: | Carlsbad, NM 88220 | City, State ZIP: | Carlsbad, NM 88220 |
| Phone: | 281-702-2329 | Email: | jhernandez@Ensolum.com, jim.raley@dvn.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | UCBH WW 3 | Turn Around | |
| Project Number: | 03A1987009 | ☑ Routine ☐ Rush | |
| Project Location: | Rural Eddy, NM | Due Date: | 5 Day TAT |
| Sampler's Name: | Gilbert Moreno | TAT starts the day received by the lab, if received by 4:30pm | |
| CC #: | 9030007583 | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes No | Wet Ice: | Yes No | |
| Samples Received Intact: | Yes No | Thermometer ID: | TAM-007 | |
| Cooler Custody Seals: | Yes No N/A | Correction Factor: | -0.2 | |
| Sample Custody Seals: | Yes No N/A | Temperature Reading: | 5.0 | |
| Total Containers: | | Corrected Temperature: | 4.8 | |

**ANALYSIS REQUEST**

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2S0_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | CHLORIDES (EPA: 300.0) | TPH (8015) | BTEX (8021) | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BH05 | S | 9.14.22 | 11:40 | 0.5' | Grab/ | 1 | | X | X | X | |
| BH05 | S | 9.14.22 | 11:50 | 1' | Grab/ | 1 | | X | X | X | |
| BH06 | S | 9.14.22 | 12:00 | 0.5' | Grab/ | 1 | | X | X | X | Incident ID |
| BH06 | S | 9.14.22 | 12:10 | 1' | Grab/ | 1 | | X | X | X | nAB1702454101 |
| BH07 | S | 9.14.22 | 12:20 | 0.5' | Grab/ | 1 | | X | X | X | |
| BH07 | S | 9.14.22 | 12:30 | 1' | Grab/ | 1 | | X | X | X | |
| BH08 | S | 9.14.22 | 12:40 | 0.5' | Grab/ | 1 | | X | X | X | |
| BH08 | S | 9.14.22 | 12:50 | 1' | Grab/ | 1 | | X | X | X | |

890-2966 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471



| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | Amanda Short | 9/14/20 1634 | | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

# Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2966-1
SDG Number: Rural Eddy NM

**Login Number: 2966**
**List Number: 1**
**Creator: Stutzman, Amanda**

**List Source: Eurofins Carlsbad**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |

# Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2966-1
SDG Number: Rural Eddy NM

**Login Number: 2966**
**List Number: 2**
**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**
**List Creation: 09/16/22 11:00 AM**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |

# APPENDIX G

# NMOCD Correspondence

## Erick Herrera

**From:** Joseph Hernandez
**Sent:** Friday, November 11, 2022 12:13 PM
**To:** Erick Herrera
**Subject:** FW: WPX Site Sampling Activity Update (9/12-9/16/22)

**Joseph S. Hernandez**
Senior Geologist
281-702-2329
**Ensolum, LLC**

**PLEASE NOTE OUR NEW CORPORATE ADDRESS:**
Ensolum, LLC
8330 LBJ Freeway, Ste. B830
Dallas, TX 75243

**From:** Joseph Hernandez
**Sent:** Friday, September 9, 2022 4:13 PM
**To:** ocd.enviro@state.nm.us; 'CFO_Spill, BLM_NM' <BLM_NM_CFO_Spill@blm.gov>
**Cc:** Devon-Team <Devon-Team@ensolum.com>; Raley, Jim <Jim.Raley@dvn.com>; Anderson, Lacee <Lacee.Anderson@dvn.com>
**Subject:** WPX Site Sampling Activity Update (9/12-9/16/22)

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between September 12 through September 16, 2022:

Site: RDX Federal 28 #011H
API: 30-015-42109
Incident Number: nAPP2215732821

Site: RDX 21-43
API: 30-015-40997
Incident Number: NAB1730640185

Site: UCBH WW 3
API: 30-015-24451
Incident Numbers: nAB1702454101

Site: RDX Federal 21 #044
API: 30-015-41193
Incident Number: nAPP2115533694

Site: EP USA 3
API: 30-015-24249

Incident Number: nAB1622531873

Site: Yates Federal #001
API: 30-015-24602
Incident Number: NRM2011138650

**Joseph S. Hernandez**
Senior Geologist
281-702-2329
**Ensolum, LLC**

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID: | nAB1702454101 |
| District RP | |
| Facility ID | |
| Application ID | |

# Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: Jim Raley  Title: Environmental Professional

Signature: Jim Raley  Date: 5/23/2023

email: jim.raley@dvn.com  Telephone: 575-689-7597

**OCD Only**

Received by: Jocelyn Harimon  Date: 05/24/2023

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

Signature: Robert Hamlet  Date: 10/17/2023

**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

| | |
|---|---|
| Operator:<br>WPX Energy Permian, LLC<br>Devon Energy - Regulatory<br>Oklahoma City, OK 73102 | OGRID:<br>246289 |
| | Action Number:<br>219790 |
| | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| rhamlet | The Remediation Plan is Conditionally Approved. This release is in a high karst area and will need to be remediated to the strictest closure criteria from Table 1 of the OCD Spill Rule. Due to the sensitive nature of the site, the variance to install a liner at 4 feet below ground surface is denied. Confirmation floor samples will need to be taken every 200 ft2. If an inadequate number of floor samples aren't taken, the report will be denied. The variance request for 500 ft2 confirmation sidewall samples is denied. Please collect confirmation sidewall samples, representing no more than 200 ft2. Sidewall/Edge samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. All sidewall samples should be taken from the sidewall of the excavation. Please make sure that the edge of the release extent is accurately defined. All off pad areas must meet reclamation standards set forth in the OCD Spill Rule. | 10/17/2023 |