

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

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Enterprise Field Services, LLC	OGRID: 241602
Contact Name: Thomas Long	Contact Telephone: 505-599-2286
Contact email: tjlong@eprod.com	Incident # (assigned by OCD) nRM2021235744
Contact mailing address: 614 Reilly Ave, Farmington, NM 87401	

Location of Release Source

Latitude **36.481637** Longitude **-108.120470** NAD 83 in decimal degrees to 5 decimal places)

Site Name Chaco Plant 3 Phase Separator	Site Type Natural Gas Processing Plant
Date Release Discovered: 07/22/2020	Serial # (if applicable) N/A

Unit Letter	Section	Township	Range	County
N	16	26N	12W	San Juan

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: **Enterprise Field Services, LLC**)

Nature and Volume of Release

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

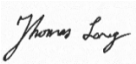
☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) Estimated 1,000 gallons (~24 BBLS)	Volume Recovered (bbls) None
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls):	Volume Recovered (bbls):
☐ Natural Gas	Volume Released (Mcf):	Volume Recovered (Mcf):
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: During the calendar 2022, Enterprise conducted semi-annual groundwater monitoring. Groundwater contaminants exceeded the New Mexico Water Quality Control Commission (NMWQCC) standards during the 2022 semi-annual groundwater monitoring events. Quarterly or semi-annual groundwater monitoring and reporting will continue at the site to evaluate contaminant concentrations for natural attenuation.

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ 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 <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: <u>Thomas Long</u> Title: <u>Senior Environmental Scientist</u> Signature:  Date: <u>02/16/2022</u> email: <u>tjlong@eprod.com</u> Telephone: <u>505-599-2286</u>
<u>OCD Only</u> Received by: _____ Date: _____



REVIEWED

By Mike Buchanan at 11:09 am, Aug 23, 2023

ENSOLUM

2022 GROUNDWATER MONITORING REPORT

Review of the 2022 Groundwater Monitoring Report for Chaco Plant 3 Phase Separator: **Content Satisfactory**

1. Continue to evaluate monitored natural attenuation method.
2. Continue groundwater monitoring for site on a semi-annual basis
3. Submit the 2023 Annual groundwater monitoring report by or before April 1, 2024.

Property:

Chaco Plant 3 Phase Separator (7/22/20)

Unit Letter N, S16 T26N R12W
San Juan County, New Mexico

New Mexico EMNRD OCD Incident ID No. NRM2021235744

February 13, 2023

Ensolum Project No. 05A1226115

Prepared for:

Enterprise Field Services, LLC

614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Thomas Long

Prepared by:

Raneet Deechilly
Project Manager

Kyle Summers
Senior Managing Geologist

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1.0 INTRODUCTION

This report describes the 2022 groundwater monitoring activities conducted at the Chaco Plant 3 Phase Separator (7/22/20) site, referred to hereinafter as the "Site".

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Chaco Plant 3 Phase Separator (7/22/20) (Site)
NM EMNRD OCD Incident ID No.	NRM2021235744
Location:	36.481637° North, 108.120470° West Unit Letter N, Section 16, Township 26 North, Range 12 West San Juan County, New Mexico
Property:	Enterprise
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On July 22, 2020, Enterprise personnel identified a release of produced water from a faulty valve on the three-phase separator. A flow path extended northwest from the release point. Excavation activities were performed at the Site during July 2020. Following the completion of excavation activities and off-site disposal of the removed hydrocarbon affected soils, confirmation soil samples were collected from the excavation and delineation soil samples were collected from soil borings by Ensolum, LLC (Ensolum). Analytical results indicated constituent of concern (COC) concentrations exceeding the NM Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) closure criteria for soils. Soil exhibiting COC exceedances was identified adjacent to the structural foundations. Additionally, potentially historic impact was identified in hand auger borings located over 10 feet outside the flow path. Following discussions with the NM EMNRD OCD, the excavation was backfilled with unaffected soils. During March 2021, a temporary monitoring was installed at the Site inside the former excavation footprint. The groundwater analytical results indicated COC concentrations above the Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs) (*Interim Site Characterization and Remediation Report*, Ensolum, November 18, 2021).

During May 2021, four soil borings were advanced on-Site by Ensolum. Subsequent to advancement, the soil borings were completed as 2-inch diameter groundwater monitoring wells (EW-2 through EW-4) and the temporary well was completed as a permanent monitoring well (EW-1). Laboratory analytical results for soil samples collected from the borings did not indicate concentrations of COCs above the NM EMNRD OCD closure criteria. However, COCs were confirmed in groundwater above the WQCC GQSs (*Interim Site Characterization and Remediation Report*, Ensolum, November 18, 2021).

The Site is subject to regulatory oversight by the NM EMNRD OCD. To address activities related to oil and gas releases, the NM EMNRD OCD references 19.15.29 NM Administrative Code (NMAC), which establishes investigation and abatement action requirements for sites that are subject to reporting and/or corrective action. Additionally, the NM EMNRD OCD utilizes the NM WQCC GQS (20.6.2 NMAC *Ground and Surface Water Protection*) to evaluate groundwater conditions.

The Site location is depicted on **Figure 1 of Appendix A** which was reproduced from a portion of a United States Geological Survey (USGS) 7.5-minute series topographic map. A **Site Vicinity Map**, created from an aerial photograph, is provided as **Figure 2**, and a **Site Map**, which indicates

the approximate locations of the monitoring wells, the extent of the former excavation, excavation sample locations, and previous soil boring locations in relation to pertinent structures and general Site boundaries, is included as **Figure 3** of **Appendix A**.

1.2 Project Objective

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

2.0 GROUNDWATER MONITORING

Ensolum conducted groundwater sampling events during February 2022 and September 2022. The groundwater sampling program consisted of the collection of one groundwater sample from each of the monitoring wells at the Site on a semi-annual basis. The NM EMNRD OCD was notified of the sampling events although no representative was present during the sampling activities. Regulatory correspondence is provided in **Appendix B**.

Ensolum's groundwater sampling program consisted of the following:

- Prior to sample collection, Ensolum gauged the depth to fluids in each monitoring well using an interface probe capable of detecting non-aqueous phase liquid (NAPL).
- Each designated monitoring well was sampled utilizing micro-purge low-flow sampling techniques. Following the completion of the micro-purge process, the groundwater sample was collected.
- Low-flow or low-stress sampling refers to sampling methods that are intended to minimize the stress that is imparted to the formation pore water in the vicinity of the well screen. Water level drawdown provides the best indication of the stress that is imparted by a given flow rate for a given hydrological situation. Pumping rates of 0.1 to 0.5 liters per minute (L/min) are typically maintained during the low-flow/low-stress sampling activities, using dedicated or decontaminated sampling equipment.
- During low-flow sampling, the groundwater samples are collected from each monitoring well once produced groundwater is consistent in color, clarity, pH, temperature, and conductivity. Measurements are typically observed every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for at least three consecutive readings.
- Groundwater samples were collected in laboratory-supplied containers (pre-preserved with mercuric chloride (HgCl_2)), labeled, and sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The groundwater samples were relinquished to the courier for Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, NM under proper chain-of-custody procedures.

2.1 Groundwater Laboratory Analytical Methods

The groundwater samples collected from the monitoring wells during the two sampling events were analyzed for volatile organic compounds (VOCs) utilizing United States Environmental Protection Agency (EPA) SW-846 Method #8260.

A summary of the analytes, sample matrix, sample frequency and EPA-approved analytical methods are presented in the following table.

Analyte	Sample Type	No. of Samples (Feb/Sept)	Method
BTEX	Groundwater	4/4	SW-846 8260

The laboratory analytical results are summarized in **Table 1** in **Appendix C**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix D**.

2.2 Groundwater Flow Direction

The groundwater flow direction at the Site generally trends toward the northwest. The calculated gradient during the 2022 monitoring events varied from 0.002 feet per foot (ft/ft) to 0.004 ft/ft across the Site. Groundwater elevation data collected during the 2022 gauging events are presented in **Table 2 (Appendix C)**. Groundwater gradient maps for the 2022 gauging events are included as **Figure 4A** and **Figure 4B (Appendix A)**.

2.3 Groundwater Data Evaluation

Ensolum compared the laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the groundwater samples collected from monitoring wells during the 2022 sampling events to the NM WQCC Human Health Standards (HHSs) and Domestic Water Supply Standards (DWSSs). The results of the groundwater sample analyses are summarized in **Table 1** of **Appendix C**. The WQCC Standard Exceedance maps are provided as **Figure 5A** and **Figure 5B** of **Appendix A**.

VOCs

The following discussion only includes the VOC constituents with an established WQCC standard. The remaining VOC constituents that indicated a reported concentration above the laboratory PQLs/ RLs are summarized in **Table 1 (Appendix C)**.

February 2022

- The February 2022 analytical result for sample EW-1 indicates a benzene concentration of 12 µg/L, which exceeds the WQCC HHS of 5 µg/L. The analytical results for the remaining monitoring well samples do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 5 µg/L.
- The February 2022 analytical results for the monitoring well samples do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 1,000 µg/L.
- The February 2022 analytical result for sample EW-1 indicates an ethylbenzene concentration of 40 µg/L, which is below the WQCC HHS of 700 µg/L. The analytical results for the remaining monitoring well samples do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 700 µg/L.
- The February 2022 analytical results for the monitoring well samples do not indicate total xylene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 620 µg/L.
- The February 2022 analytical results for the monitoring well samples do not indicate naphthalene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 30 µg/L.

- The February 2022 analytical result for monitoring well EW-4 indicates a chloroform concentration of 49 µg/L, which is below the WQCC HHS of 100 µg/L. The analytical results for the remaining monitoring well samples do not indicate chloroform concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 100 µg/L.

February 2022 Data Qualifier Flags		
Sample IDs	Data Qualifier Flags	Comments/Reactions
EW-4 (collected 2/22/2022)	Sample Diluted Due to Matrix Interference.	The sample was diluted due to matrix interference. The results are usable for the intended purpose.

September 2022

- The September 2022 analytical result for sample EW-1 indicates a benzene concentration of 11 µg/L, which exceeds the WQCC HHS of 5 µg/L. The analytical results for the remaining monitoring well samples do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 5 µg/L.
- The September 2022 analytical results for the monitoring well samples do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 1,000 µg/L.
- The September 2022 analytical result for sample EW-1 indicates an ethylbenzene concentration of 18 µg/L, which is below the WQCC HHS of 700 µg/L. The analytical results for the remaining monitoring well samples do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 700 µg/L.
- The September 2022 analytical result for sample EW-1 indicates a total xylene concentration of 1.7 µg/L, which is below the WQCC HHS of 620 µg/L. The analytical results for the remaining monitoring well samples do not indicate total xylene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 620 µg/L.
- The September 2022 analytical results for the monitoring well samples do not indicate naphthalene concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 30 µg/L.
- The September 2022 analytical result for monitoring well EW-4 indicates a chloroform concentration of 18 µg/L, which is below the WQCC HHS of 100 µg/L. The analytical results for the remaining monitoring well samples do not indicate chloroform concentrations above the laboratory PQLs/RLs, which are below the WQCC HHS of 100 µg/L.
- No data qualifier flags are associated with the September 2022 analytical results.

3.0 FINDINGS

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

- The groundwater flow direction at the Site is generally towards the northwest, with a seasonally varying gradient between 0.002 ft/ft and 0.004 ft/ft across the Site.

- Benzene was reported at concentrations exceeding the NM WQCC GQS of 5 µg/L in groundwater samples collected from monitoring well EW-1 during the February 2022 and September 2022 sampling events. The groundwater samples collected from the remaining monitoring during the two 2022 sampling events did not exhibit COC concentrations above the applicable WQCC GQSs.
- The results from the 2022 groundwater sampling events at the Site generally continue to demonstrate declining or stable COC concentrations in groundwater.

4.0 RECOMMENDATIONS

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

- Report the groundwater monitoring data to the NM EMNRD OCD.
- Continue semi-annual groundwater monitoring at the Site to monitor COCs in groundwater to evaluate the natural attenuation potential.

5.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

5.1 Standard of Care

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

5.2 Limitations

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

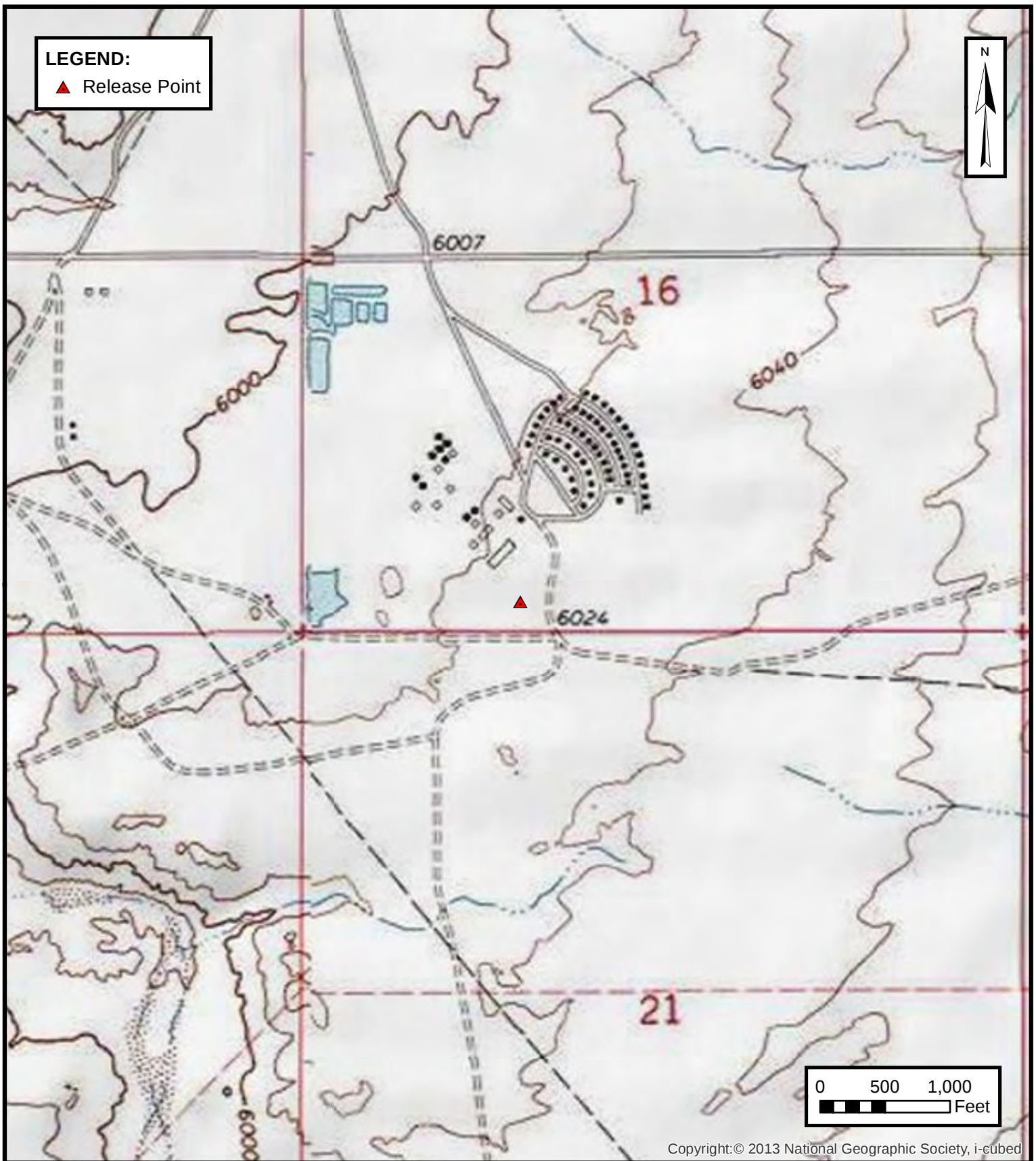
5.3 Reliance

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



APPENDIX A

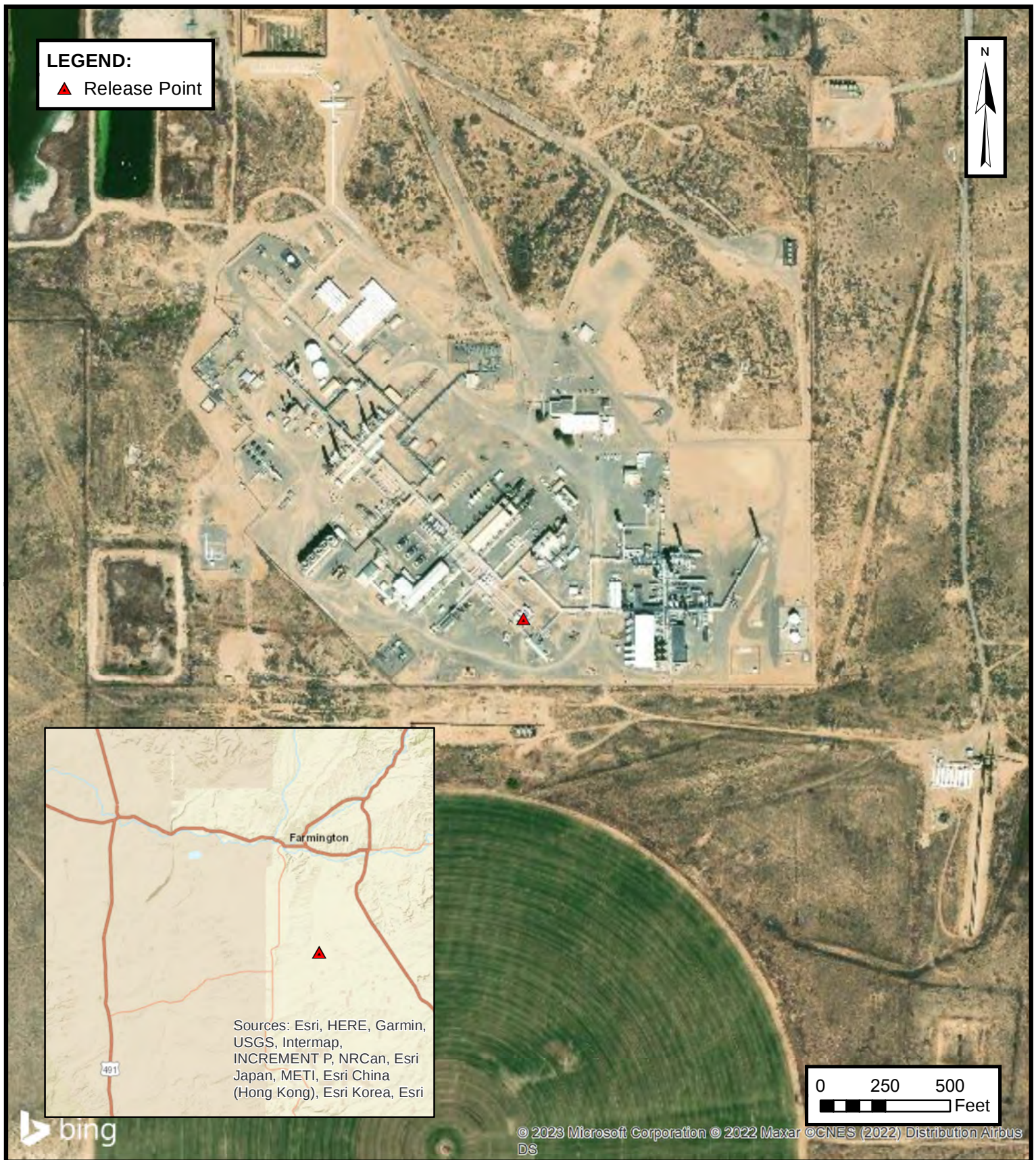
Figures



TOPOGRAPHIC MAP
ENTERPRISE FIELD SERVICES, LLC
CHACO PLANT 3 PHASE SEPARATOR (7/22/20)
Unit Letter N, S16 T26N R12W, San Juan County, New Mexico
36.481637° N, 108.120470° W

PROJECT NUMBER: 05A1226115

FIGURE
1

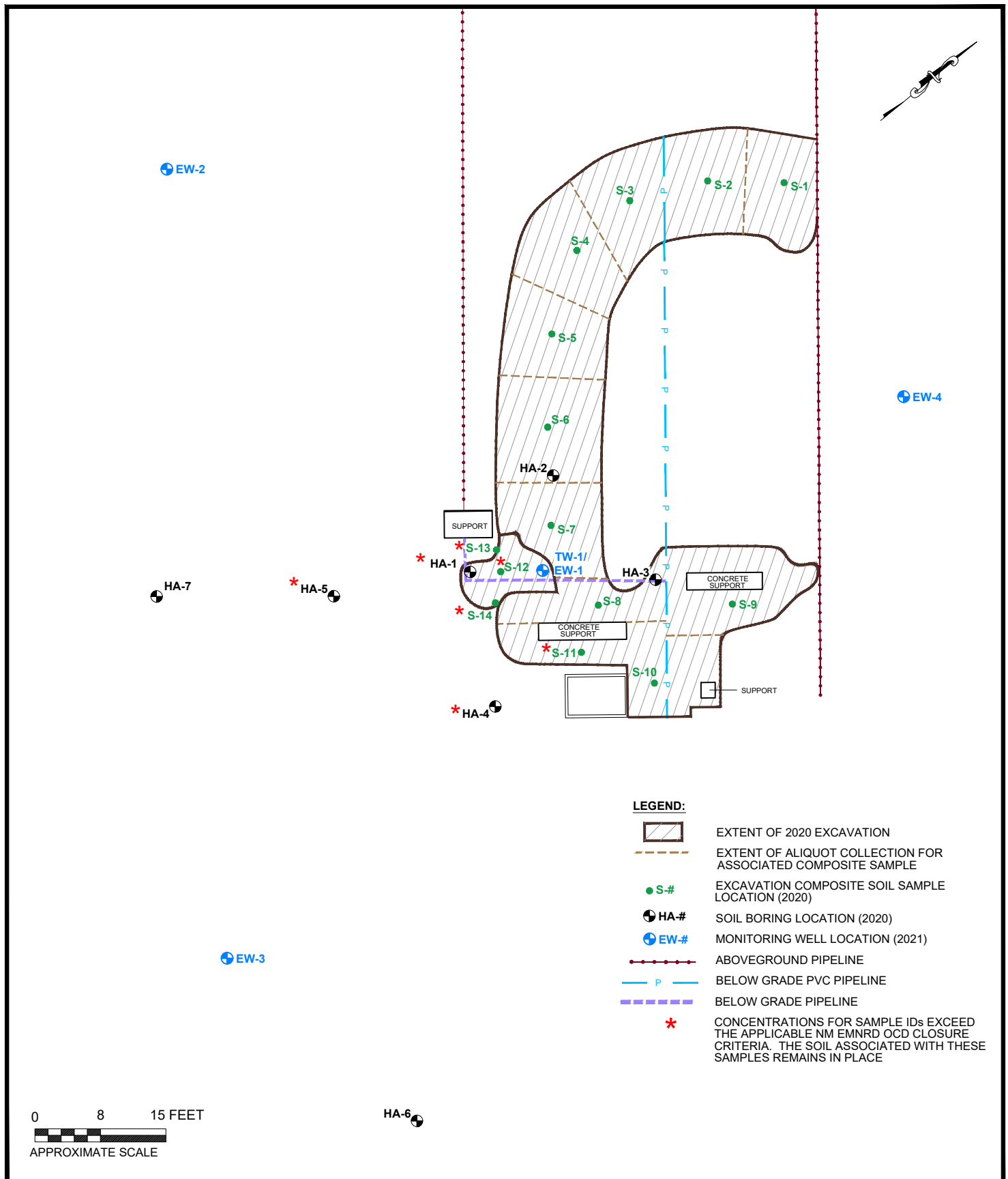


SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
CHACO PLANT 3 PHASE SEPARATOR (7/22/20)
Unit Letter N, S16 T26N R12W, San Juan County, New Mexico
36.481637° N, 108.120470° W

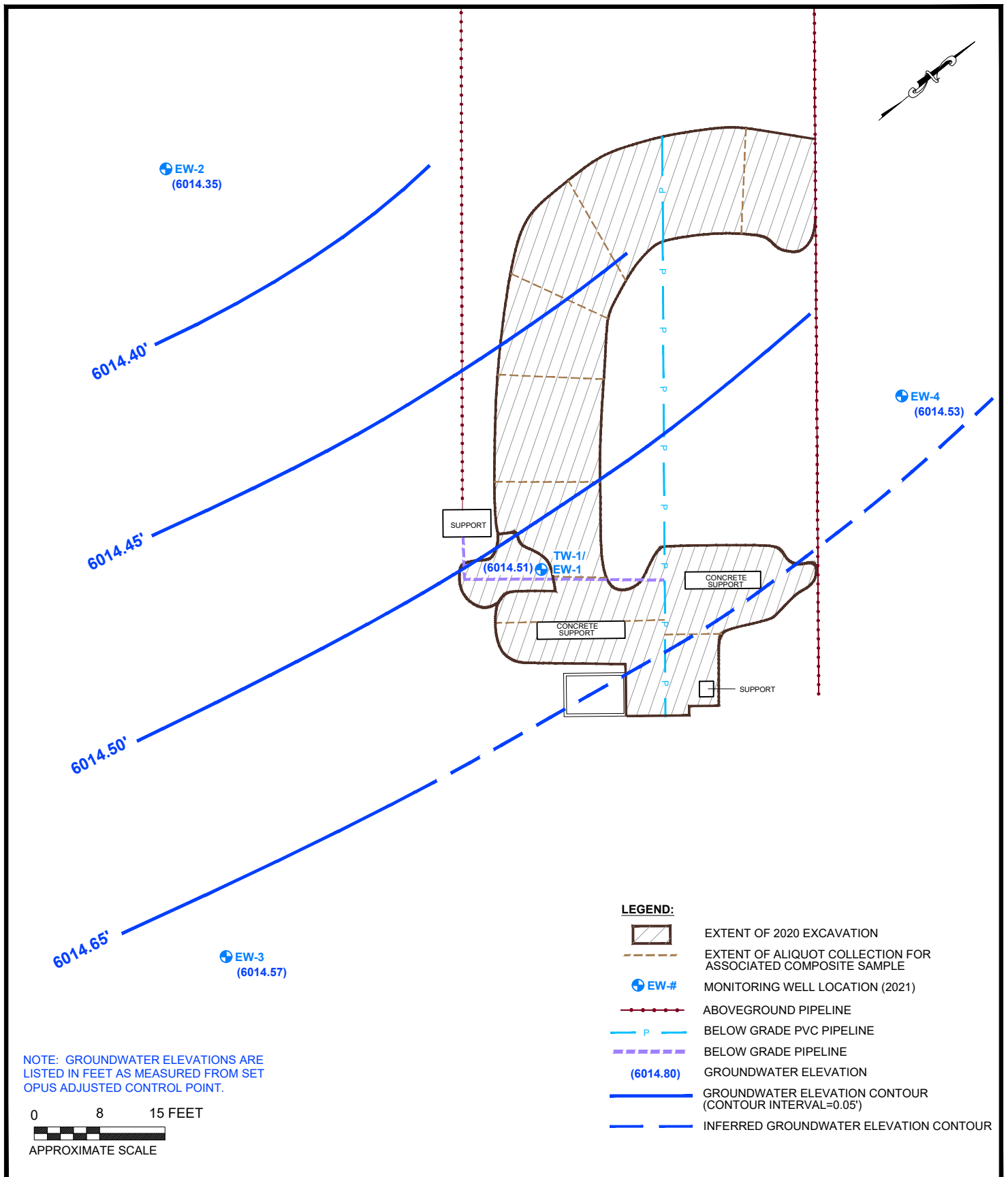
PROJECT NUMBER: 05A1226115

FIGURE
2

**SITE MAP**

CHACO PLANT 3 PHASE SEPARATOR (7/22/20)
 UNIT LETTER N, S16 T26N R12W
 SAN JUAN COUNTY, NEW MEXICO
 36.481637° North, 108.120470 West°
 PROJECT NUMBER: 05A1226115

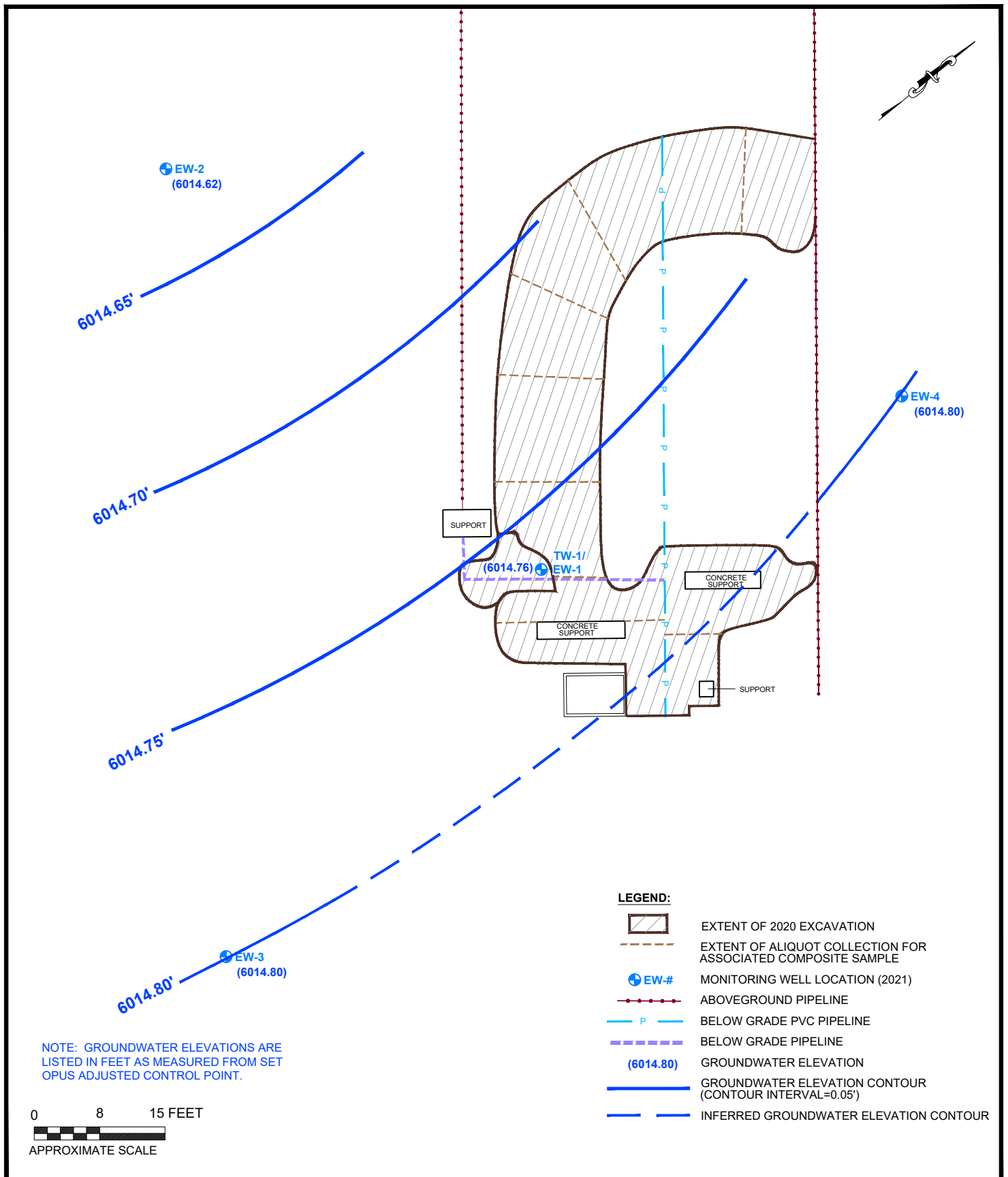
FIGURE**3**



GROUNDWATER GRADIENT MAP (FEBRUARY 2022)

CHACO PLANT 3 PHASE SEPARATOR (7/22/20)
UNIT LETTER N, S16 T26N R12W
SAN JUAN COUNTY, NEW MEXICO
36.481637° North, 108.120470 West°
PROJECT NUMBER: 05A1226115

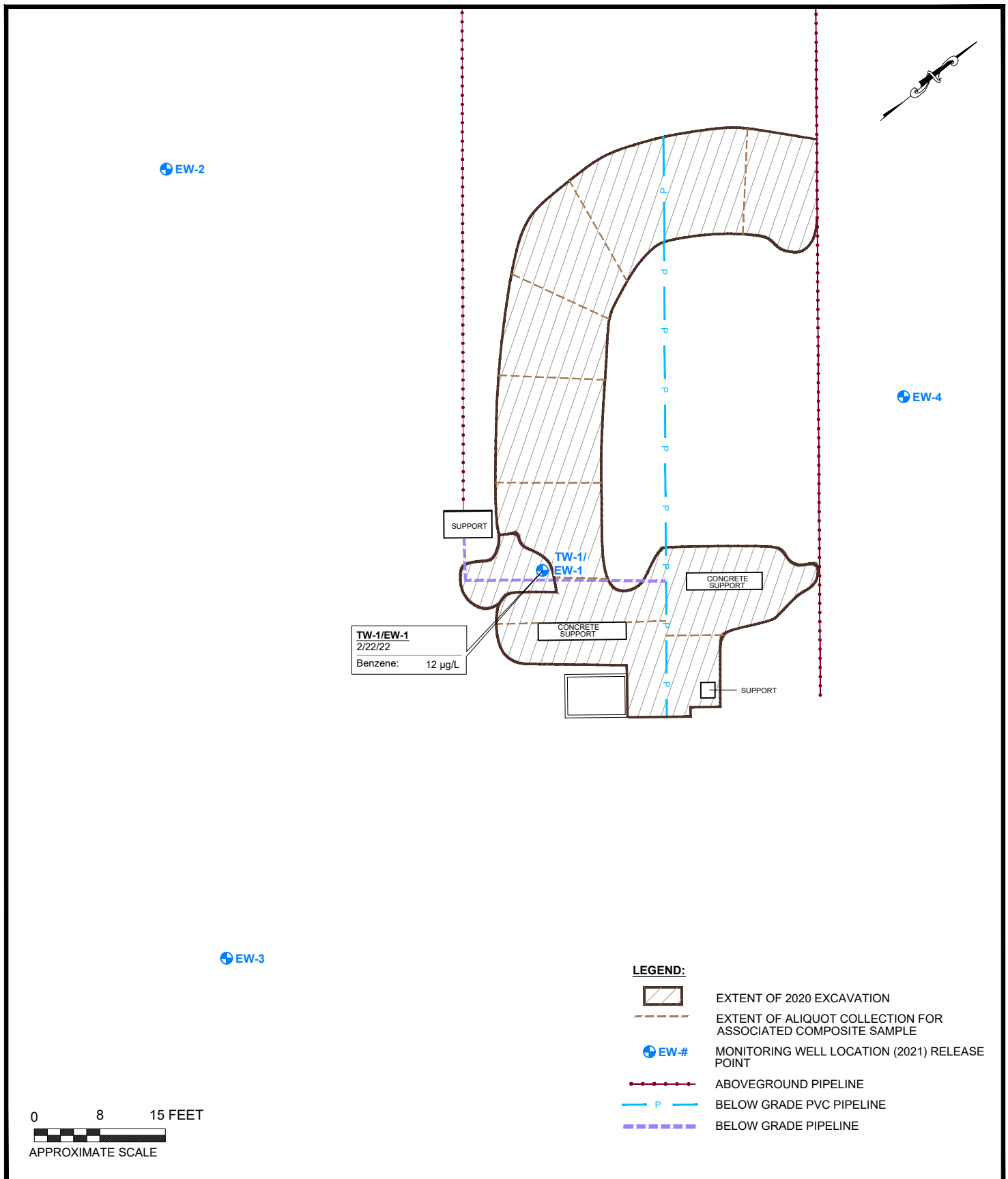
FIGURE
4A



GROUNDWATER GRADIENT MAP (SEPTEMBER 2022)

CHACO PLANT 3 PHASE SEPARATOR (7/22/20)
UNIT LETTER N, S16 T26N R12W
SAN JUAN COUNTY, NEW MEXICO
36.481637 North, 108.120470 West°
PROJECT NUMBER: 05A1226115

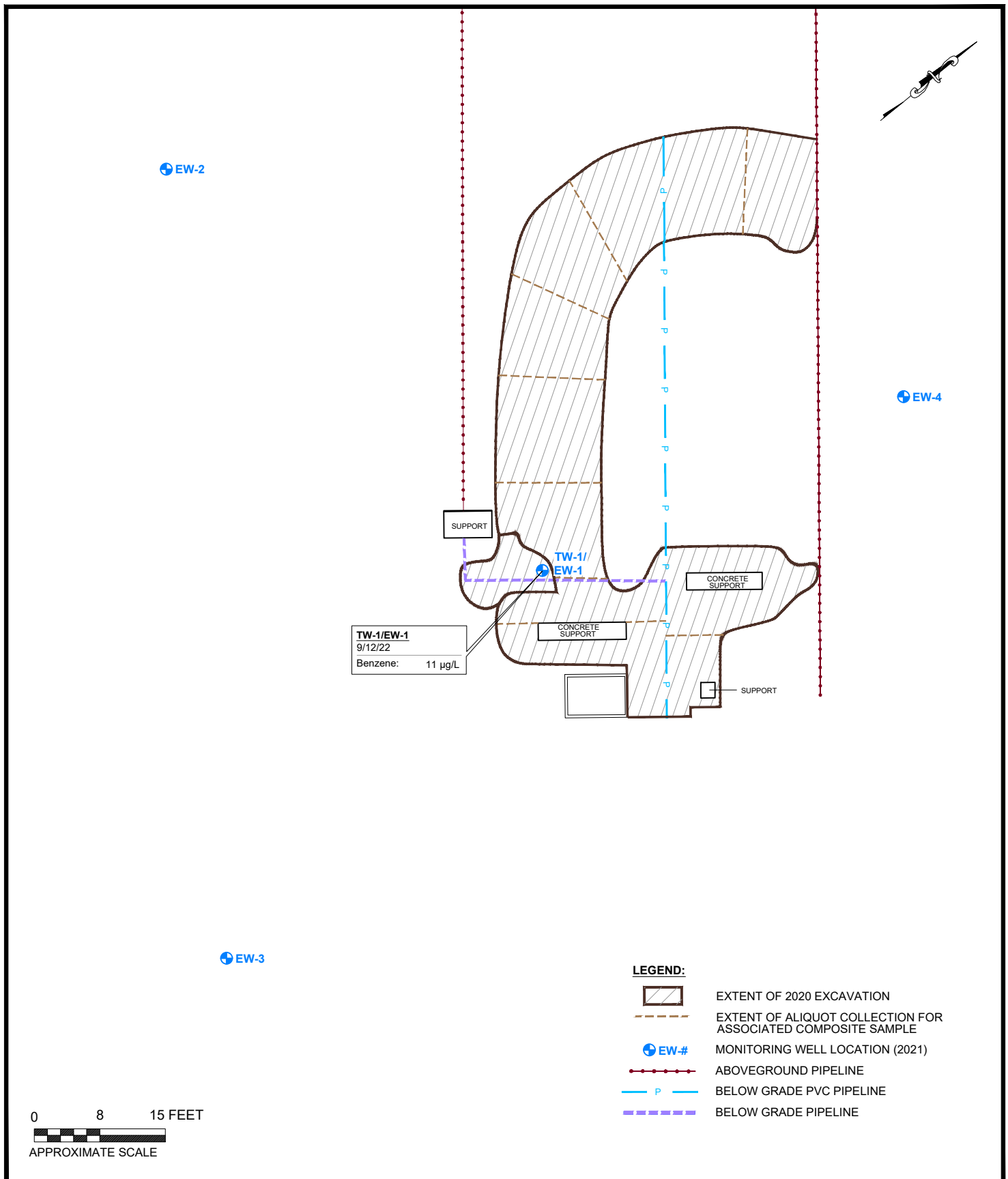
FIGURE
4B



WQCC STANDARD EXCEEDANCES (FEBRUARY 2022)

CHACO PLANT 3 PHASE SEPARATOR (7/22/20)
UNIT LETTER N, S16 T26N R12W
SAN JUAN COUNTY, NEW MEXICO
36.481637° North, 108.120470 West°
PROJECT NUMBER: 05A1226115

FIGURE
5A



WQCC STANDARD EXCEEDANCES (SEPTEMBER 2022)

CHACO PLANT 3 PHASE SEPARATOR (7/22/20)
UNIT LETTER N, S16 T26N R12W
SAN JUAN COUNTY, NEW MEXICO
36.481637° North, 108.120470 West°
PROJECT NUMBER: 05A1226115

FIGURE
5B



APPENDIX B

Regulatory Correspondence

From: [Kyle Summers](#)
To: [Ranee Deechilly](#)
Subject: FW: [EXTERNAL] FW: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling
Date: Friday, September 16, 2022 11:09:14 AM
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)



Kyle Summers

Principal

903-821-5603

Ensolum, LLC

in f

From: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Sent: Thursday, September 8, 2022 10:35 AM
To: Long, Thomas <tjlong@eprod.com>
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>
Subject: RE: [EXTERNAL] FW: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling

[**EXTERNAL EMAIL**]

Tom,

Thank you for the notice. If an OCD representative is not on-site on the date &/or time given, please proceed with your sampling. For whatever reason, the sample collection timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of the rescheduling may result in the sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate reporting documentation.

The OCD requires a copy of all correspondence related to remedial activities be included in all proposals, weekly/monthly/quarterly/semi-annual/annual, or final closure reports. Correspondence reporting requirements may include, but not limited to, notifications for sampling or drilling event(s), and request for time extension(s) or variance(s).

If you have any questions, please contact me via email at your convenience.

Thanks again

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@state.nm.us

Office Hrs.:
7:00am - 12:00pm & 1:00 - 3:30 pm Mon.-Thur.
7:00am - 12:00pm & 1:00 - 4:00 pm Fri.

From: Long, Thomas <tjlong@eprod.com>
Sent: Thursday, September 8, 2022 7:59 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>
Subject: RE: [EXTERNAL] FW: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling

Nelson,

This email is a notification that Enterprise will be groundwater sampling at the Chaco Plant Three Phase Separator release site on Monday, September 12, 2022. Sampling activities are anticipated to take one day. If you have any questions, please call or email.

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



From: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Sent: Friday, February 11, 2022 8:36 AM
To: Long, Thomas <tjlong@eprod.com>
Subject: RE: [EXTERNAL] FW: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling

[Use caution with links/attachments]

Tom,

Thanks for the notification. Have a good day and be safe.

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@state.nm.us

Hrs.: 7:00-11:30 am & 1:00-4:00 pm Mon.-Thur.
7:00 am-12:00 pm & 1:00-4:00 Fri.

From: Long, Thomas <tjlong@eprod.com>
Sent: Friday, February 11, 2022 8:34 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXTERNAL] FW: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Nelson,

This email is a notification that Enterprise will be groundwater sampling at the Chaco Plant Three Phase Separator release site on Tuesday, February 15, 2022. Sampling activities are anticipated to take one day. If you have any questions, please call or email.

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



From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Wednesday, August 4, 2021 8:44 AM
To: Kyle Summers <ksummers@ensolum.com>
Cc: Long, Thomas <tjlong@eprod.com>; Stone, Brian <bmstone@eprod.com>; Ranee Deechilly <rdeechilly@ensolum.com>
Subject: [EXTERNAL] RE: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling

[Use caution with links/attachments]

Kyle,

Thanks for the update

Cory Smith • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1000 Rio Brazos | Aztec, NM 87410
505.334.6178 x115 | Cory.Smith@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>

From: Kyle Summers <ksummers@ensolum.com>
Sent: Wednesday, August 4, 2021 8:32 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: 'Long, Thomas' <tjlong@eprod.com>; Stone, Brian <bmstone@eprod.com>; Rane Deechilly <rdeechilly@ensolum.com>
Subject: FW: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling

Cory,
We were not able to enter the Chaco Plant today due to unscheduled maintenance. We are currently rescheduled for 8 AM on Friday, August 6, 2021.



Kyle Summers

Principal
903-821-5603
[Ensolum, LLC](#)
[in](#) [f](#) [t](#)

From: Kyle Summers
Sent: Monday, August 2, 2021 8:06 AM
To: Smith, Cory <cory.smith@state.nm.us>
Cc: 'Long, Thomas' <tjlong@eprod.com>; Stone, Brian <bmstone@eprod.com>; Rane Deechilly <rdeechilly@ensolum.com>
Subject: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling

Mr. Smith,
Groundwater sampling at the Chaco Gas Plant Phase 3 Separator site is currently scheduled to begin at 8 AM on Wednesday, August 4, 2021. I don't think I have heard back from you with regard to the analytical suite, if you have any input. Let me know if you have any questions.

Thanks,
Kyle Summers



Kyle Summers

Principal
903-821-5603
[Ensolum, LLC](#)
[in](#) [f](#) [t](#)

From: Kyle Summers

Sent: Friday, July 23, 2021 10:29 AM

To: 'cory.smith@state.nm.us' <cory.smith@state.nm.us>

Cc: 'Long, Thomas' <tjlong@eprod.com>; Raneer Deechilly <rdeechilly@ensolum.com>; Stone, Brian <bmstone@eprod.com>

Subject: Enterprise Chaco Plant Phase 3 Separator - Incident ID: NRM2021235744 - Groundwater sampling analytical parameters

Cory, it isn't scheduled yet, but we are looking at groundwater sampling at Chaco next week if Operations can accommodate. I believe the initial source area well was sampled for 8260, cations/anions, pH, and TDS. Benzene and TDS exceeded standards.

Will you want that same analytical suite again?

In Tom's absence, I'll notify when/if I get a schedule.

Thanks,

Kyle



Kyle Summers

Principal

903-821-5603

Ensolum, LLC

in f 

This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.



APPENDIX C

Tables



TABLE 1
Chaco Plant 3 Phase Separator (7/22/20)
GROUNDWATER ANALYTICAL SUMMARY - DETECTED VOLATILE ORGANIC COMPOUNDS

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Naphthalene (µg/L)	Chloroform (µg/L)	Bromodichloromethane ² (µg/L)	Chlorobenzene ¹ (µg/L)	1,2,4-Trimethylbenzene ^{1,2} (µg/L)	1,3,5-Trimethylbenzene ^{1,2} (µg/L)	2-Chlorotoluene ^{1,2} (µg/L)	4-Chlorotoluene ^{1,2} (µg/L)	Dibromochloromethane ^{1,2} (µg/L)	Isopropylbenzene ^{1,2} (µg/L)	n-Propylbenzene ^{1,2} (µg/L)	sec-Butylbenzene ^{1,2} (µg/L)
New Mexico Water Quality Control Commission Human Health Standards		5	1,000	700	620	30	100	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Water Sample Collected from the Temporary Monitoring Well																	
TW-1/EW-1	3.24.21	88	<1.0	29	170	2.7	3.3	1.6	4.4	10	4.3	5.1	1.3	1.1	3.2	1.5	<1.0
Water Samples Collected from the Monitoring Wells																	
EW-1	8.06.21	53	<5.0	58	10	<10	<5.0	<5.0	9.3	9.1	<5.0	6.0	<5.0	<5.0	12	<5.0	<5.0
	2.22.22	12	<2.0	40	<3.0	<4.0	<2.0	<2.0	7.8	16	<2.0	6.5	<2.0	<2.0	10	4.1	<2.0
	9.12.22	11	<1.0	18	1.7	<2.0	<1.0	<1.0	4.6	5.9	<1.0	4.4	<1.0	<1.0	5.9	2.2	2.4
EW-2	8.06.21	<1.0	<1.0	<1.0	<1.5	<2.0	<1.0	<1.0	6.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2.22.22	<1.0	<1.0	<1.0	<1.5	<2.0	<1.0	<1.0	4.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9.12.22	<1.0	<1.0	<1.0	<1.5	<2.0	<1.0	<1.0	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
EW-3	8.06.21	<1.0	<1.0	<1.0	<1.5	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	2.22.22	<1.0	<1.0	<1.0	<1.5	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9.12.22	<1.0	<1.0	<1.0	<1.5	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
EW-4	8.06.21	<5.0	<5.0	<5.0	<7.5	<10	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	2.22.22	<2.0	<2.0	<2.0	<3.0	<4.0	49	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	9.12.22	<1.0	<1.0	<1.0	<1.5	<2.0	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

Concentrations in **bold** and yellow exceed the applicable WQCC HHS¹ = Constituent is not identified as "toxic pollutant" under 20.6.2 New Mexico Administrative Code (NMAC).² = Constituent is not identified as a priority pollutant under the Federal Clean Water Act (CWA).

µg/L = microgram per liter

NE = Not Established

<1.0 = The numeral (in this case "1.0") identifies the laboratory reporting limit (RL) or practical quantitation limit (PQL).



TABLE 2
Chaco Plant 3 Phase Separator (7/22/20)
GROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	Total Well Depth (feet BTOC)	Screen Interval (feet BTOC)	TOC Elevations (feet AMSL)	Groundwater Elevation (feet AMSL)
EW-1	8.6.21	ND	12.29	ND	20	10-20	6026.96	6014.67
	2.22.22	ND	12.45	ND				6014.51
	9.12.22	ND	12.20	ND				6014.76
EW-2	8.6.21	ND	12.27	ND	20	10-20	6026.78	6014.51
	2.22.22	ND	12.43	ND				6014.35
	9.12.22	ND	12.16	ND				6014.62
EW-3	8.6.21	ND	13.55	ND	20	10-20	6028.28	6014.73
	2.22.22	ND	13.71	ND				6014.57
	9.12.22	ND	13.48	ND				6014.80
EW-4	8.6.21	ND	12.14	ND	20	10-20	6026.83	6014.69
	2.22.22	ND	12.30	ND				6014.53
	9.12.22	ND	12.03	ND				6014.80

Monitoring wells surveyed in September 2021

BTOC - below top of casing

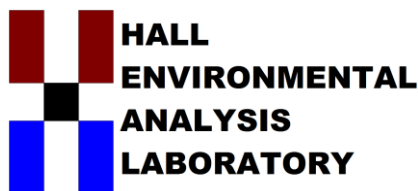
AMSL - above mean sea level

TOC - top of casing



APPENDIX D

Laboratory Data Sheets & Chain of Custody Documentation



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

March 03, 2022

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Chaco Plant 3 Phase Separator

OrderNo.: 2202A86

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 2/23/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202A86

Date Reported: 3/3/2022

CLIENT: ENSOLUM

Client Sample ID: EW-4

Project: Chaco Plant 3 Phase Separator

Collection Date: 2/22/2022 10:00:00 AM

Lab ID: 2202A86-001

Matrix: AQUEOUS

Received Date: 2/23/2022 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Toluene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Ethylbenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2,4-Trimethylbenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,3,5-Trimethylbenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Naphthalene	ND	4.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1-Methylnaphthalene	ND	8.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
2-Methylnaphthalene	ND	8.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Acetone	ND	20	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Bromobenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Bromodichloromethane	2.1	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Bromoform	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Bromomethane	ND	6.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
2-Butanone	ND	20	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Carbon disulfide	ND	20	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Carbon Tetrachloride	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Chlorobenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Chloroethane	ND	4.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Chloroform	49	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Chloromethane	ND	6.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
2-Chlorotoluene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
4-Chlorotoluene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
cis-1,2-DCE	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Dibromochloromethane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Dibromomethane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,1-Dichloroethane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,1-Dichloroethene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2-Dichloropropane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,3-Dichloropropane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
2,2-Dichloropropane	ND	4.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088

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

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202A86

Date Reported: 3/3/2022

CLIENT: ENSOLUM

Client Sample ID: EW-4

Project: Chaco Plant 3 Phase Separator

Collection Date: 2/22/2022 10:00:00 AM

Lab ID: 2202A86-001

Matrix: AQUEOUS

Received Date: 2/23/2022 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Hexachlorobutadiene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
2-Hexanone	ND	20	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Isopropylbenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
4-Isopropyltoluene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
4-Methyl-2-pentanone	ND	20	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Methylene Chloride	ND	6.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
n-Butylbenzene	ND	6.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
n-Propylbenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
sec-Butylbenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Styrene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
tert-Butylbenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
trans-1,2-DCE	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Trichlorofluoromethane	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Vinyl chloride	ND	2.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Xylenes, Total	ND	3.0	D	µg/L	2	2/25/2022 12:41:00 PM	R86088
Surr: 1,2-Dichloroethane-d4	97.6	70-130	D	%Rec	2	2/25/2022 12:41:00 PM	R86088
Surr: 4-Bromofluorobenzene	97.9	70-130	D	%Rec	2	2/25/2022 12:41:00 PM	R86088
Surr: Dibromofluoromethane	97.7	70-130	D	%Rec	2	2/25/2022 12:41:00 PM	R86088
Surr: Toluene-d8	96.0	70-130	D	%Rec	2	2/25/2022 12:41:00 PM	R86088

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

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

Page 2 of 11

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202A86

Date Reported: 3/3/2022

CLIENT: ENSOLUM

Client Sample ID: EW-2

Project: Chaco Plant 3 Phase Separator

Collection Date: 2/22/2022 10:45:00 AM

Lab ID: 2202A86-002

Matrix: AQUEOUS

Received Date: 2/23/2022 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Toluene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Ethylbenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Naphthalene	ND	2.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1-Methylnaphthalene	ND	4.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
2-Methylnaphthalene	ND	4.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Acetone	ND	10		µg/L	1	2/25/2022 1:52:00 PM	R86088
Bromobenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Bromodichloromethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Bromoform	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Bromomethane	ND	3.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
2-Butanone	ND	10		µg/L	1	2/25/2022 1:52:00 PM	R86088
Carbon disulfide	ND	10		µg/L	1	2/25/2022 1:52:00 PM	R86088
Carbon Tetrachloride	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Chlorobenzene	4.7	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Chloroethane	ND	2.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Chloroform	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Chloromethane	ND	3.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
2-Chlorotoluene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
4-Chlorotoluene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
cis-1,2-DCE	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Dibromochloromethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Dibromomethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,1-Dichloroethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,1-Dichloroethene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2-Dichloropropane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,3-Dichloropropane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
2,2-Dichloropropane	ND	2.0		µg/L	1	2/25/2022 1:52:00 PM	R86088

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

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202A86

Date Reported: 3/3/2022

CLIENT: ENSOLUM

Client Sample ID: EW-2

Project: Chaco Plant 3 Phase Separator

Collection Date: 2/22/2022 10:45:00 AM

Lab ID: 2202A86-002

Matrix: AQUEOUS

Received Date: 2/23/2022 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Hexachlorobutadiene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
2-Hexanone	ND	10		µg/L	1	2/25/2022 1:52:00 PM	R86088
Isopropylbenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
4-Isopropyltoluene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
4-Methyl-2-pentanone	ND	10		µg/L	1	2/25/2022 1:52:00 PM	R86088
Methylene Chloride	ND	3.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
n-Butylbenzene	ND	3.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
n-Propylbenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
sec-Butylbenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Styrene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
tert-Butylbenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
trans-1,2-DCE	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Trichlorofluoromethane	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Vinyl chloride	ND	1.0		µg/L	1	2/25/2022 1:52:00 PM	R86088
Xylenes, Total	ND	1.5		µg/L	1	2/25/2022 1:52:00 PM	R86088
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%Rec	1	2/25/2022 1:52:00 PM	R86088
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	2/25/2022 1:52:00 PM	R86088
Surr: Dibromofluoromethane	97.5	70-130		%Rec	1	2/25/2022 1:52:00 PM	R86088
Surr: Toluene-d8	95.3	70-130		%Rec	1	2/25/2022 1:52:00 PM	R86088

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

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

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

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Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 2202A86

Date Reported: 3/3/2022

CLIENT: ENSOLUM**Client Sample ID:** EW-3**Project:** Chaco Plant 3 Phase Separator**Collection Date:** 2/22/2022 11:25:00 AM**Lab ID:** 2202A86-003**Matrix:** AQUEOUS**Received Date:** 2/23/2022 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Toluene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Ethylbenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Naphthalene	ND	2.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1-Methylnaphthalene	ND	4.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
2-Methylnaphthalene	ND	4.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Acetone	ND	10		µg/L	1	2/25/2022 2:15:00 PM	R86088
Bromobenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Bromodichloromethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Bromoform	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Bromomethane	ND	3.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
2-Butanone	ND	10		µg/L	1	2/25/2022 2:15:00 PM	R86088
Carbon disulfide	ND	10		µg/L	1	2/25/2022 2:15:00 PM	R86088
Carbon Tetrachloride	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Chlorobenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Chloroethane	ND	2.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Chloroform	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Chloromethane	ND	3.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
2-Chlorotoluene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
4-Chlorotoluene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
cis-1,2-DCE	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Dibromochloromethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Dibromomethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,1-Dichloroethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,1-Dichloroethene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2-Dichloropropane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,3-Dichloropropane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
2,2-Dichloropropane	ND	2.0		µg/L	1	2/25/2022 2:15:00 PM	R86088

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

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202A86

Date Reported: 3/3/2022

CLIENT: ENSOLUM

Client Sample ID: EW-3

Project: Chaco Plant 3 Phase Separator

Collection Date: 2/22/2022 11:25:00 AM

Lab ID: 2202A86-003

Matrix: AQUEOUS

Received Date: 2/23/2022 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Hexachlorobutadiene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
2-Hexanone	ND	10		µg/L	1	2/25/2022 2:15:00 PM	R86088
Isopropylbenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
4-Isopropyltoluene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
4-Methyl-2-pentanone	ND	10		µg/L	1	2/25/2022 2:15:00 PM	R86088
Methylene Chloride	ND	3.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
n-Butylbenzene	ND	3.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
n-Propylbenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
sec-Butylbenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Styrene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
tert-Butylbenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
trans-1,2-DCE	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Trichlorofluoromethane	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Vinyl chloride	ND	1.0		µg/L	1	2/25/2022 2:15:00 PM	R86088
Xylenes, Total	ND	1.5		µg/L	1	2/25/2022 2:15:00 PM	R86088
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	2/25/2022 2:15:00 PM	R86088
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	2/25/2022 2:15:00 PM	R86088
Surr: Dibromofluoromethane	98.0	70-130		%Rec	1	2/25/2022 2:15:00 PM	R86088
Surr: Toluene-d8	96.1	70-130		%Rec	1	2/25/2022 2:15:00 PM	R86088

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

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202A86

Date Reported: 3/3/2022

CLIENT: ENSOLUM

Client Sample ID: EW-1

Project: Chaco Plant 3 Phase Separator

Collection Date: 2/22/2022 12:10:00 PM

Lab ID: 2202A86-004

Matrix: AQUEOUS

Received Date: 2/23/2022 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: CCM	
Benzene	12	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Toluene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Ethylbenzene	40	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2,4-Trimethylbenzene	16	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Naphthalene	ND	4.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1-Methylnaphthalene	ND	8.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
2-Methylnaphthalene	ND	8.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Acetone	ND	20		µg/L	2	2/25/2022 2:39:00 PM	R86088
Bromobenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Bromodichloromethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Bromoform	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Bromomethane	ND	6.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
2-Butanone	ND	20		µg/L	2	2/25/2022 2:39:00 PM	R86088
Carbon disulfide	ND	20		µg/L	2	2/25/2022 2:39:00 PM	R86088
Carbon Tetrachloride	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Chlorobenzene	7.8	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Chloroethane	ND	4.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Chloroform	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Chloromethane	ND	6.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
2-Chlorotoluene	6.5	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
4-Chlorotoluene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
cis-1,2-DCE	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Dibromochloromethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Dibromomethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2-Dichlorobenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,3-Dichlorobenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,4-Dichlorobenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Dichlorodifluoromethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,1-Dichloroethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,1-Dichloroethene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2-Dichloropropane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,3-Dichloropropane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
2,2-Dichloropropane	ND	4.0		µg/L	2	2/25/2022 2:39:00 PM	R86088

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

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2202A86

Date Reported: 3/3/2022

CLIENT: ENSOLUM

Client Sample ID: EW-1

Project: Chaco Plant 3 Phase Separator

Collection Date: 2/22/2022 12:10:00 PM

Lab ID: 2202A86-004

Matrix: AQUEOUS

Received Date: 2/23/2022 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Hexachlorobutadiene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
2-Hexanone	ND	20		µg/L	2	2/25/2022 2:39:00 PM	R86088
Isopropylbenzene	10	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
4-Isopropyltoluene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
4-Methyl-2-pentanone	ND	20		µg/L	2	2/25/2022 2:39:00 PM	R86088
Methylene Chloride	ND	6.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
n-Butylbenzene	ND	6.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
n-Propylbenzene	4.1	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
sec-Butylbenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Styrene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
tert-Butylbenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
trans-1,2-DCE	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,1,1-Trichloroethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,1,2-Trichloroethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Trichloroethene (TCE)	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Trichlorofluoromethane	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
1,2,3-Trichloropropane	ND	4.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Vinyl chloride	ND	2.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Xylenes, Total	ND	3.0		µg/L	2	2/25/2022 2:39:00 PM	R86088
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%Rec	2	2/25/2022 2:39:00 PM	R86088
Surr: 4-Bromofluorobenzene	98.9	70-130		%Rec	2	2/25/2022 2:39:00 PM	R86088
Surr: Dibromofluoromethane	101	70-130		%Rec	2	2/25/2022 2:39:00 PM	R86088
Surr: Toluene-d8	96.9	70-130		%Rec	2	2/25/2022 2:39:00 PM	R86088

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

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

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

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

WO#: 2202A86

03-Mar-22

Client: ENSOLUM**Project:** Chaco Plant 3 Phase Separator

Sample ID: 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R86088			RunNo: 86088						
Prep Date:	Analysis Date: 2/25/2022			SeqNo: 3033818		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.1	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.5	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.8	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.0	70	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID: mb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R86088			RunNo: 86088						
Prep Date:	Analysis Date: 2/25/2022			SeqNo: 3033819		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202A86

03-Mar-22

Client: ENSOLUM

Project: Chaco Plant 3 Phase Separator

Sample ID: mb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R86088			RunNo: 86088						
Prep Date:	Analysis Date: 2/25/2022			SeqNo: 3033819		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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

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

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

WO#: 2202A86

03-Mar-22

Client: ENSOLUM**Project:** Chaco Plant 3 Phase Separator

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R86088		RunNo: 86088							
Prep Date:	Analysis Date: 2/25/2022		SeqNo: 3033819		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID: 2202A86-001ams	SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: EW-4	Batch ID: R86088		RunNo: 86088							
Prep Date:	Analysis Date: 2/25/2022		SeqNo: 3033821		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	41	2.0	40.00	0	103	70	130			
Toluene	41	2.0	40.00	0	102	70	130			
Chlorobenzene	42	2.0	40.00	0	106	70	130			
1,1-Dichloroethene	37	2.0	40.00	0	93.4	70	130			
Trichloroethene (TCE)	39	2.0	40.00	0.4600	97.4	70	130			
Surr: 1,2-Dichloroethane-d4	20		20.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		99.7	70	130			
Surr: Dibromofluoromethane	20		20.00		99.0	70	130			
Surr: Toluene-d8	19		20.00		96.6	70	130			

Sample ID: 2202A86-001amsd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: EW-4	Batch ID: R86088		RunNo: 86088							
Prep Date:	Analysis Date: 2/25/2022		SeqNo: 3036025		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	41	2.0	40.00	0	103	70	130	0.583	20	
Toluene	40	2.0	40.00	0	100	70	130	2.22	20	
Chlorobenzene	42	2.0	40.00	0	105	70	130	0.246	20	
1,1-Dichloroethene	37	2.0	40.00	0	92.4	70	130	1.07	20	
Trichloroethene (TCE)	39	2.0	40.00	0.4600	97.1	70	130	0.244	20	
Surr: 1,2-Dichloroethane-d4	20		20.00		99.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	20		20.00		101	70	130	0	0	
Surr: Dibromofluoromethane	20		20.00		100	70	130	0	0	
Surr: Toluene-d8	19		20.00		95.4	70	130	0	0	

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: ENSOLUM

Work Order Number: 2202A86

RcptNo: 1

Received By: Tracy Casarrubias

2/23/2022 7:45:00 AM

Completed By: Tracy Casarrubias

2/23/2022 12:29:24 PM

Reviewed By: *JA 2/23/22*

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐
5. Sample(s) in proper container(s)? Samples not Frozen. Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: *CWC 2/23/22*

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

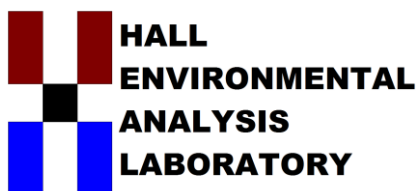
Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	-1.1	Good	Yes			



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

September 19, 2022

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Chaco Plant 3 Phase Separator

OrderNo.: 2209559

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/13/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2209559

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: EW-4

Project: Chaco Plant 3 Phase Separator

Collection Date: 9/12/2022 1:00:00 PM

Lab ID: 2209559-001

Matrix: AQUEOUS

Received Date: 9/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Toluene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Ethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Naphthalene	ND	2.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1-Methylnaphthalene	ND	4.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
2-Methylnaphthalene	ND	4.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Acetone	ND	10		µg/L	1	9/14/2022 6:01:00 PM	R91021
Bromobenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Bromodichloromethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Bromoform	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Bromomethane	ND	3.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
2-Butanone	ND	10		µg/L	1	9/14/2022 6:01:00 PM	R91021
Carbon disulfide	ND	10		µg/L	1	9/14/2022 6:01:00 PM	R91021
Carbon Tetrachloride	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Chlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Chloroethane	ND	2.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Chloroform	18	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Chloromethane	ND	3.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
2-Chlorotoluene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
4-Chlorotoluene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
cis-1,2-DCE	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Dibromochloromethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Dibromomethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,1-Dichloroethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,1-Dichloroethene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2-Dichloropropane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,3-Dichloropropane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
2,2-Dichloropropane	ND	2.0		µg/L	1	9/14/2022 6:01:00 PM	R91021

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

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

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Analytical Report

Lab Order 2209559

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: EW-4

Project: Chaco Plant 3 Phase Separator

Collection Date: 9/12/2022 1:00:00 PM

Lab ID: 2209559-001

Matrix: AQUEOUS

Received Date: 9/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Hexachlorobutadiene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
2-Hexanone	ND	10		µg/L	1	9/14/2022 6:01:00 PM	R91021
Isopropylbenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
4-Isopropyltoluene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
4-Methyl-2-pentanone	ND	10		µg/L	1	9/14/2022 6:01:00 PM	R91021
Methylene Chloride	ND	3.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
n-Butylbenzene	ND	3.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
n-Propylbenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
sec-Butylbenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Styrene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
tert-Butylbenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
trans-1,2-DCE	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Trichlorofluoromethane	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Vinyl chloride	ND	1.0		µg/L	1	9/14/2022 6:01:00 PM	R91021
Xylenes, Total	ND	1.5		µg/L	1	9/14/2022 6:01:00 PM	R91021
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	9/14/2022 6:01:00 PM	R91021
Surr: 4-Bromofluorobenzene	88.6	70-130		%Rec	1	9/14/2022 6:01:00 PM	R91021
Surr: Dibromofluoromethane	101	70-130		%Rec	1	9/14/2022 6:01:00 PM	R91021
Surr: Toluene-d8	89.1	70-130		%Rec	1	9/14/2022 6:01:00 PM	R91021

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

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

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Analytical Report

Lab Order 2209559

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: EW-2

Project: Chaco Plant 3 Phase Separator

Collection Date: 9/12/2022 1:40:00 PM

Lab ID: 2209559-002

Matrix: AQUEOUS

Received Date: 9/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Toluene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Ethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Naphthalene	ND	2.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1-Methylnaphthalene	ND	4.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
2-Methylnaphthalene	ND	4.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Acetone	ND	10		µg/L	1	9/14/2022 6:24:00 PM	R91021
Bromobenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Bromodichloromethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Bromoform	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Bromomethane	ND	3.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
2-Butanone	ND	10		µg/L	1	9/14/2022 6:24:00 PM	R91021
Carbon disulfide	ND	10		µg/L	1	9/14/2022 6:24:00 PM	R91021
Carbon Tetrachloride	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Chlorobenzene	5.0	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Chloroethane	ND	2.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Chloroform	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Chloromethane	ND	3.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
2-Chlorotoluene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
4-Chlorotoluene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
cis-1,2-DCE	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Dibromochloromethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Dibromomethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,1-Dichloroethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,1-Dichloroethene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2-Dichloropropane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,3-Dichloropropane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
2,2-Dichloropropane	ND	2.0		µg/L	1	9/14/2022 6:24:00 PM	R91021

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

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

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Analytical Report

Lab Order 2209559

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: EW-2

Project: Chaco Plant 3 Phase Separator

Collection Date: 9/12/2022 1:40:00 PM

Lab ID: 2209559-002

Matrix: AQUEOUS

Received Date: 9/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Hexachlorobutadiene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
2-Hexanone	ND	10		µg/L	1	9/14/2022 6:24:00 PM	R91021
Isopropylbenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
4-Isopropyltoluene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
4-Methyl-2-pentanone	ND	10		µg/L	1	9/14/2022 6:24:00 PM	R91021
Methylene Chloride	ND	3.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
n-Butylbenzene	ND	3.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
n-Propylbenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
sec-Butylbenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Styrene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
tert-Butylbenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
trans-1,2-DCE	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Trichlorofluoromethane	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Vinyl chloride	ND	1.0		µg/L	1	9/14/2022 6:24:00 PM	R91021
Xylenes, Total	ND	1.5		µg/L	1	9/14/2022 6:24:00 PM	R91021
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	9/14/2022 6:24:00 PM	R91021
Surr: 4-Bromofluorobenzene	89.5	70-130		%Rec	1	9/14/2022 6:24:00 PM	R91021
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/14/2022 6:24:00 PM	R91021
Surr: Toluene-d8	89.2	70-130		%Rec	1	9/14/2022 6:24:00 PM	R91021

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

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

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Analytical Report

Lab Order 2209559

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: EW-3

Project: Chaco Plant 3 Phase Separator

Collection Date: 9/12/2022 2:20:00 PM

Lab ID: 2209559-003

Matrix: AQUEOUS

Received Date: 9/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Toluene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Ethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Naphthalene	ND	2.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1-Methylnaphthalene	ND	4.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
2-Methylnaphthalene	ND	4.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Acetone	ND	10		µg/L	1	9/14/2022 6:47:00 PM	R91021
Bromobenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Bromodichloromethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Bromoform	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Bromomethane	ND	3.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
2-Butanone	ND	10		µg/L	1	9/14/2022 6:47:00 PM	R91021
Carbon disulfide	ND	10		µg/L	1	9/14/2022 6:47:00 PM	R91021
Carbon Tetrachloride	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Chlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Chloroethane	ND	2.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Chloroform	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Chloromethane	ND	3.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
2-Chlorotoluene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
4-Chlorotoluene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
cis-1,2-DCE	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Dibromochloromethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Dibromomethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,1-Dichloroethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,1-Dichloroethene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2-Dichloropropane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,3-Dichloropropane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
2,2-Dichloropropane	ND	2.0		µg/L	1	9/14/2022 6:47:00 PM	R91021

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

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

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Analytical Report

Lab Order 2209559

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: EW-3

Project: Chaco Plant 3 Phase Separator

Collection Date: 9/12/2022 2:20:00 PM

Lab ID: 2209559-003

Matrix: AQUEOUS

Received Date: 9/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Hexachlorobutadiene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
2-Hexanone	ND	10		µg/L	1	9/14/2022 6:47:00 PM	R91021
Isopropylbenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
4-Isopropyltoluene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
4-Methyl-2-pentanone	ND	10		µg/L	1	9/14/2022 6:47:00 PM	R91021
Methylene Chloride	ND	3.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
n-Butylbenzene	ND	3.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
n-Propylbenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
sec-Butylbenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Styrene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
tert-Butylbenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
trans-1,2-DCE	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Trichlorofluoromethane	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Vinyl chloride	ND	1.0		µg/L	1	9/14/2022 6:47:00 PM	R91021
Xylenes, Total	ND	1.5		µg/L	1	9/14/2022 6:47:00 PM	R91021
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	9/14/2022 6:47:00 PM	R91021
Surr: 4-Bromofluorobenzene	90.5	70-130		%Rec	1	9/14/2022 6:47:00 PM	R91021
Surr: Dibromofluoromethane	103	70-130		%Rec	1	9/14/2022 6:47:00 PM	R91021
Surr: Toluene-d8	89.3	70-130		%Rec	1	9/14/2022 6:47:00 PM	R91021

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

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

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Analytical Report

Lab Order 2209559

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: EW-1

Project: Chaco Plant 3 Phase Separator

Collection Date: 9/12/2022 3:00:00 PM

Lab ID: 2209559-004

Matrix: AQUEOUS

Received Date: 9/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
Benzene	11	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Toluene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Ethylbenzene	18	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2,4-Trimethylbenzene	5.9	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Naphthalene	ND	2.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1-Methylnaphthalene	ND	4.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
2-Methylnaphthalene	ND	4.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Acetone	ND	10		µg/L	1	9/14/2022 7:10:00 PM	R91021
Bromobenzene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Bromodichloromethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Bromoform	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Bromomethane	ND	3.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
2-Butanone	ND	10		µg/L	1	9/14/2022 7:10:00 PM	R91021
Carbon disulfide	ND	10		µg/L	1	9/14/2022 7:10:00 PM	R91021
Carbon Tetrachloride	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Chlorobenzene	4.6	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Chloroethane	ND	2.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Chloroform	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Chloromethane	ND	3.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
2-Chlorotoluene	4.4	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
4-Chlorotoluene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
cis-1,2-DCE	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Dibromochloromethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Dibromomethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,1-Dichloroethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,1-Dichloroethene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2-Dichloropropane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,3-Dichloropropane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
2,2-Dichloropropane	ND	2.0		µg/L	1	9/14/2022 7:10:00 PM	R91021

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

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

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Analytical Report

Lab Order 2209559

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: EW-1

Project: Chaco Plant 3 Phase Separator

Collection Date: 9/12/2022 3:00:00 PM

Lab ID: 2209559-004

Matrix: AQUEOUS

Received Date: 9/13/2022 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CCM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Hexachlorobutadiene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
2-Hexanone	ND	10		µg/L	1	9/14/2022 7:10:00 PM	R91021
Isopropylbenzene	5.9	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
4-Isopropyltoluene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
4-Methyl-2-pentanone	ND	10		µg/L	1	9/14/2022 7:10:00 PM	R91021
Methylene Chloride	ND	3.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
n-Butylbenzene	ND	3.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
n-Propylbenzene	2.2	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
sec-Butylbenzene	2.4	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Styrene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
tert-Butylbenzene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
trans-1,2-DCE	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Trichlorofluoromethane	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Vinyl chloride	ND	1.0		µg/L	1	9/14/2022 7:10:00 PM	R91021
Xylenes, Total	1.7	1.5		µg/L	1	9/14/2022 7:10:00 PM	R91021
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	9/14/2022 7:10:00 PM	R91021
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	1	9/14/2022 7:10:00 PM	R91021
Surr: Dibromofluoromethane	98.0	70-130		%Rec	1	9/14/2022 7:10:00 PM	R91021
Surr: Toluene-d8	91.9	70-130		%Rec	1	9/14/2022 7:10:00 PM	R91021

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

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

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

WO#: 2209559

19-Sep-22

Client: ENSOLUM
Project: Chaco Plant 3 Phase Separator

Sample ID: 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R91021			RunNo: 91021						
Prep Date:	Analysis Date: 9/14/2022			SeqNo: 3255741		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.8	70	130			
Toluene	19	1.0	20.00	0	95.4	70	130			
Chlorobenzene	19	1.0	20.00	0	97.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.6	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.3	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.9	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	9.0		10.00		90.1	70	130			

Sample ID: mb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R91021			RunNo: 91021						
Prep Date:	Analysis Date: 9/14/2022			SeqNo: 3255742		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2209559

19-Sep-22

Client: ENSOLUM
Project: Chaco Plant 3 Phase Separator

Sample ID: mb		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW		Batch ID: R91021		RunNo: 91021						
Prep Date:		Analysis Date: 9/14/2022		SeqNo: 3255742		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2209559

19-Sep-22

Client: ENSOLUM

Project: Chaco Plant 3 Phase Separator

Sample ID: mb		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW		Batch ID: R91021		RunNo: 91021						
Prep Date:		Analysis Date: 9/14/2022		SeqNo: 3255742			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.2	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	8.8		10.00		88.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

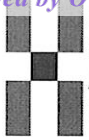
E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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**HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY**

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

Sample Log-In Check List

Client Name: ENSOLUM

Work Order Number: 2209559

RcptNo: 1

Received By: Juan Rojas 9/13/2022 7:50:00 AM

Completed By: Sean Livingston 9/13/2022 9:02:51 AM

Reviewed By: KPG 9.13.22

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: Ju 9/13/22

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.2	Good				

Chain-of-Custody Record

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: Chaco Plant 3 Phase Separator

Project #: See notes

Client: Ensolum, LLC

Mailing Address: 600 S. Rio Grande Suite A

Aztec, NM 87410

Phone #: _____

email or Fax#: ksummers@ensolum.com

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

Accreditation: ☐ AZ Compliance ☐ NELAC ☐ Other _____

☐ EDD (Type) _____

Project Manager: ksummers

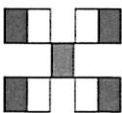
Sampler: R Dechitly

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CF): 0.1 + 0.1 = 0.2 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
9/12/22	1300	W	EW-4	(3) 40mL VOA	HgCl ₂	2209559 001
9/12/22	1340	W	EW-2	(3) 40mL VOA	HgCl ₂	002
9/12/22	1420	W	EW-3	(3) 40mL VOA	HgCl ₂	003
9/12/22	1500	W	EW-1	(3) 40mL VOA	HgCl ₂	004



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH: 8015D (GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA) <u>Full</u>	8270 (Semi-VOA)	Total Coliform (Present/Absent)
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Remarks:

PM - Tom Long (EPRD)

Pay Key - SF11548

Non AFE - N48994

Date: 9/12/22	Time: 1727	Relinquished by: <u>[Signature]</u>	Received by: <u>ME-WA</u>	Via: <u>WA</u>	Date: 9/12/22	Time: 1727
Date: 9/12/22	Time: 1823	Relinquished by: <u>[Signature]</u>	Received by: <u>[Signature]</u>	Via: <u>[Signature]</u>	Date: 9/12/22	Time: 1823

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

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

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

CONDITIONS

Action 188427

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID:
	241602
	Action Number: 188427
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2022 Groundwater Monitoring Report for Chaco Plant 3 Phas Separator: Content Satisfactory 1. Continue to evaluate monitored natural attenuation method. 2. Continue groundwater monitoring for site on a semi-annual basis 3. Submit the 2023 Annual groundwater monitoring report by or before April 1, 2024.	8/23/2023