**6121 Indian School Road, NE Suite 200**
**Albuquerque, New Mexico 87110**
**United States**
**www.GHD.com**

**REVIEWED**
**By Mike Buchanan at 11:30 am, Feb 12, 2024**

**Your ref:** New Mexico Oil Conservation Division 1RP-9-5-2186 and 1RP-1540
**Our ref:** 12603932-LTR-Velez-1

Review of the 2022 Annual Groundwater Monitoring Report for A-7 Bettis: **Content Satisfactory**
1. Continue to conduct semi-annual groundwater monitoring in MW-1, MW-3, MW-6, MW-7, MW-9 and MW-10
2. Conduct annual groundwater monitoring for chloride in MW-2, MW4, MW-5, MW-8 and MW-11
3. BTEX may be suspended from sampling analysis due to eight (8) consecutive results below the allowable concentrations.
4. Install a monitoring well upgradient of MW-10 to demonstrate chloride impact.
5. Submit the next annual groundwater monitoring report by April 1, 2024, and include results from new monitoring well if installation has been complete.

**October 25, 2023**

**Mr. Nelson Velez**
**State of New Mexico**
**Energy, Minerals, and Natural Resources Department**
**New Mexico Oil Conservation Division**
**811 South First Street**
**Artesia, New Mexico 88210**

**2022 Annual Groundwater Monitoring Report**
**A-7 Bettis**
**Lea County, New Mexico**
**New Mexico Oil Conservation Division Nos. 1RP-9-5-2186 and 1RP-1540**
**Incident Number nAPP2214000463**

Dear Mr. Velez,

On behalf of ET Gathering & Processing LLC (ETGP), formerly ETC Texas Pipeline. Ltd., GHD Services Inc. (GHD) is submitting the 2022 Annual Groundwater Monitoring Report (Report) for the above-referenced property (Site) to the New Mexico Oil Conservation Division (NMOCD). The Report summarizes activities performed at the Site during 2022.

Should you have any questions or comments regarding this submittal, please contact the undersigned.

Regards,

**Blair Owen**
Project Manager

(561) 339-3572
Blair.Owen@GHD.com

**J.T. Murrey**
Project Director

(361) 252-6136
JT.Murrey@GHD.com

BO/mlr/1

Encl. 2022 Annual Groundwater Monitoring Report

Copy: Stacy Boultinghouse, Energy Transfer
Charlie Bettis, Landowner

# 2022 Annual Groundwater Monitoring Report

## A-7 Bettis
## Lea County, New Mexico
## NMOCD Nos. 1RP-9-5-2186 and 1RP-1540
## Incident No. nAPP2214000463

ET Gathering & Processing LLC

October 25, 2023

→ The Power of Commitment

# Contents



## Table index



## Figure index



## Appendices

# 1. Introduction

This report presents the results of groundwater monitoring activities performed during 2022 by GHD Services Inc. (GHD) at the ET Gathering & Processing LLC, formerly ETC Texas Pipeline, Ltd., A-7 Bettis site (Site). The Site is located at 32° 28' 31.3212"North and 103° 8' 31.74" West within Unit letter L, Sections 14 and 15. The property on which the Site is located is owned by Mr. Charlie Bettis of Eunice, New Mexico. The Site is regulated by the New Mexico Oil Conservation Division (NMOCD) under remediation case numbers 1RP-9-5-2186 and 1RP-1540 (associated with incident number nAPP2214000463).

## 1.1 Site Background

On August 22, 2007, Southern Union Gas Services, Ltd. (SUGS) discovered a release from a section of a 10-inch low pressure natural gas pipeline that had failed. SUGS verbally notified NMOCD regarding the release on the same day. The failure resulted in a release of a mixture of crude oil, produced water, and natural gas. The “Release Notification and Corrective Action” (Form C-141) indicated a release of approximately 200 barrels (bbls) of fluid, 130 bbls which were recovered via vacuum truck. The initial Form C-141 was submitted and approved by the NMOCD Hobbs District Office on August 31, 2007, and assigned case number 1RP-1540. On March 24, 2009, Form C-141 was resubmitted and again approved by the NMOCD Hobbs District Office and assigned the case number 1RP-9-5-2186.

Based on the product released, it was determined that the constituents of concern (COCs) to be evaluated at the Site were benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbons (TPH), total dissolved solids (TDS), and chloride.

Between February 2009 and August 2019, soil and groundwater assessments and remediation events have been conducted at the Site, including the collection and analysis of surface soil samples, excavation and off-Site disposal of impacted soils, advancement of five soil borings for vertical and horizontal delineation, installation of 11 groundwater monitoring wells (MW-1 through MW-11), installation of passive oxygen release socks, and installation of an aeration windmill. Details of these events can be found in previous reports prepared for this Site; however, a summary of the events and their respective results are provided below.

Horizontal delineation of the impacted area was conducted with the collection and analysis of 10 surface soil samples on February 26, 2009, which was followed by the excavation of impacted soils from March to July 2009. Additional impacted soils remained in place that could not be removed due to safety considerations. The excavation was partially backfilled and compacted with clean imported soil to 15 feet below ground surface (bgs). A 20-millimeter polyethylene liner was installed over the backfilled soil to minimize the vertical migration of contaminants left in situ.

Five soil borings, SB-1 through SB-5, were advanced in October 2012 to assess the lateral and vertical extent of soil impacts, three of which were converted into monitoring wells (MW-1 through MW-3). Initial groundwater analytical results indicated that concentrations of BTEX, TDS, and chloride were detected in groundwater samples above the New Mexico Water Quality Control Commission (NMWQCC) standards.

Between August 2013 and December 2015, MW-4 through MW-11 were installed at the Site to further delineate groundwater impacts. Light non-aqueous phase liquid (LNAPL) has never been observed in the monitoring wells at the Site.

O-Sox™, passive oxygen release socks, were installed in MW-1 and MW-6 through MW-9 on July 19, 2016, and were replaced on December 9, 2016. However, due to the O-Sox™ swelling in the wells, creating difficulty for removal during replacement, the use of O-Sox™ was discontinued in 2017.

To facilitate the degradation of low-level dissolved phase hydrocarbons in groundwater at the Site, GHD installed an aeration windmill in August of 2019. The windmill is located between MW-6 and MW-8 and was set to distribute air into groundwater via tubing and air diffusion stones in wells MW-8 and MW-9. The windmill operated from August through October 2019 and March through September 2020. Analytical results from groundwater samples collected since

discontinuation of windmill operation in 2020 suggest that benzene concentrations in groundwater remain below NMWQCC standard. The windmill has not been operated since September 2020.

In the 2019 Annual Groundwater Monitoring Report submitted to the NMOCD, a revised sampling schedule was proposed for the Site as follows.

– Continue sampling MW-1, MW-2, and MW-6 through MW-11 on a semi-annual basis.
– Decrease sampling for MW-3, MW-4, and MW-5 to an annual basis as those wells had never exceeded the NMWQCC standard for target constituents.

NMOCD approved the revised schedule on April 28, 2020, via email. The revised schedule was implemented in 2021; however, MW-2 was swapped for MW-3 (i.e., MW-2 sampling was reduced to semi-annual instead of MW-3). MW-2 has also never exceeded the NMWQCC standard for target constituents.

On May 24, 2023, NMOCD responded to the 2021 Annual Groundwater Monitoring report prepared and submitted for the Site. Their response included further modifications to the sampling schedule as follows.

– Terminate all sampling from MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, and MW-11.
– Terminate sampling for BTEX from MW-1, MW-6, MW-9, and MW-10.
– Continue sampling for chloride from MW-1, MW-6, MW-9, and MW-10.

Additionally, NMOCD requested a monitoring well be installed up-gradient of MW-10 to confirm the concentrations of chloride in MW-10 (**Figure 7**). As the 2022 monitoring events and the first semi-annual event of 2023 had been conducted prior to receiving this response, the new sampling schedule will be initiated in the second semi-annual event of 2023. Details of the 2022 monitoring events are presented in this report.

# 2. Groundwater Monitoring

GHD performed semi-annual groundwater monitoring events at the Site on April 13 and November 8, 2022. The monitoring program included groundwater gauging MW-1 through MW-11 and sampling the monitoring wells as follows.

***April 13, 2022***

– MW-1, MW-3, and MW-6 through MW-11

***November 8, 2022***

– MW-1 through MW-11

## 2.1 Monitoring Well Gauging

On April 13 and November 8, 2022, GHD personnel measured the depth to groundwater in the wells indicated above using an electronic oil/water interface probe (IP). The IP was cleaned with laboratory grade soap and purified water prior to gauging each monitoring well. Depth to groundwater and calculated groundwater elevations are summarized in **Table 1**.

Based on the data collected in 2022, groundwater flow is generally southeast and is consistent with historical data for the Site. The groundwater gradient was calculated to be approximately 0.0023 ft/ft in April and at 0.0018 ft/ft in November. Groundwater potentiometric surface maps are presented as **Figure 3** and **Figure 4**.

## 2.2 Groundwater Sampling

Following gauging during each 2022 event, GHD collected groundwater samples from the monitoring wells per the schedule indicated above. Prior to sampling, GHD personnel utilized dedicated polyethylene bailers to purge a minimum of three well volumes of groundwater or until the well was dry. The wells were given time to recover prior to collecting a groundwater sample. Groundwater quality parameters of temperature, pH, oxidation reduction potential, and conductivity were collected with a field-calibrated multi-parameter groundwater quality meter and recorded on groundwater sampling forms. A summary of field parameters is presented in **Table 2**.

Groundwater samples were collected, placed in laboratory-prepared sample containers, packed in a cooler with ice, and shipped under chain-of-custody documentation to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. All samples were analyzed for BTEX via EPA Method 8260 and chloride via EPA Method 300.0.

## 2.3 Quality Assurance/Quality Control

During each groundwater monitoring event, a field duplicate was collected as a Quality Assurance/Quality Control (QA/QC) sample and subsequently submitted for laboratory analysis. A trip blank was also submitted as a QA/QC sample for each groundwater monitoring event.

## 2.4 Analytical Results

The NMWQCC mandates that groundwater quality in New Mexico be protected, and has issued groundwater quality standards in Title 20, Chapter 6, Part 2, Section 3103 of the NMAC (20.6.2.3103 NMAC). Groundwater quality standards have been set for the protection of human health, domestic water supply, and irrigation use.

The groundwater analytical results for 2022 are summarized in **Table 3** and the corresponding laboratory analytical reports are included in **Appendix A**. Chloride and benzene concentration maps are presented as **Figures 5 and 6**. A summary of results is discussed below.

- Concentrations of BTEX were not detected above laboratory detection limits in the groundwater samples collected from the monitoring wells during 2022, except for a detection of benzene in the November sample from MW-1; however, the detected concentration did not exceed the NMWQCC standard.
- Chloride was detected in all groundwater samples collected from the Site during the 2022 monitoring events. However, only the April groundwater samples collected from MW-7, MW-9, and MW-10, and the November groundwater samples collected from MW-3, MW-7, MW-9, and MW-10 had concentrations that exceeded the NMWQCC standard.

This is the first time that chloride has been detected above the NMWQCC standard in MW-3 and MW-7. Additionally, MW-6 is continuing to show a decrease in chloride concentrations.

# 3. Summary and Recommendations

## 3.1 Summary

The following summarizes the information and data presented in this report.

- Benzene was only detected in MW-1; however, the concentration did not exceed the NMWQCC standard. The remaining groundwater samples did not have detected concentrations of BTEX at or above laboratory reporting limits.

- Chloride was detected in MW-3, MW-7, MW-9 and MW-10 at concentrations that exceeded the NMWQCC standard.
- This is the first time that chloride concentrations detected in MW-3 and MW-7 have exceeded the NMWQCC standard.

## 3.2 Recommendations

Based on the results of the 2022 groundwater monitoring events, GHD recommends the following:

- Continue semi-annual groundwater monitoring for chloride in MW-1, MW-3, MW-6, MW-7, MW-9, and MW-10.
- Conduct annual groundwater monitoring for chloride in MW-2, MW-4, MW-5, MW-8, and MW-11.
- Discontinue groundwater monitoring for BTEX in all monitoring wells.
- At the request of NMOCD, install one groundwater monitoring well up-gradient of MW-10 to confirm chloride concentrations that have been detected in groundwater. See **Figure 7**.

**Table 1**

**Summary of Groundwater Gauging and Elevation Data**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | TOC Elevation (ft) | Total Well Depth (ft bgs) | Date Measured | Depth to Groundwater (ft below TOC) | Groundwater Elevation (ft AMSL) |
|---|---|---|---|---|---|
| MW-1 | 3,413.64 | 74.28 | 2/7/2013 | 59.82 | 3,353.82 |
| | | | 5/10/2013 | 59.36 | 3,354.28 |
| | | | 9/3/2013 | 59.91 | 3,353.73 |
| | | | 7/30/2014 | 59.19 | 3,354.45 |
| | | | 10/31/2014 | 59.13 | 3,354.51 |
| | | | 1/21/2015 | 58.99 | 3,354.65 |
| | | | 4/21/2015 | 58.96 | 3,354.68 |
| | | | 12/21/2015 | 59.04 | 3,354.60 |
| | | | 6/1/2016 | 58.95 | 3,354.69 |
| | | | 12/8/2016 | 58.93 | 3,354.71 |
| | | | 5/9/2017 | 58.85 | 3,354.79 |
| | | | 11/15/2017 | 58.95 | 3,354.69 |
| | | | 5/10/2018 | 58.95 | 3,354.69 |
| | | | 5/17/2018 | 59.00 | 3,354.64 |
| | | | 11/12/2018 | 58.76 | 3,354.88 |
| | | | 5/14/2019 | 59.22 | 3,354.42 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 59.43 | 3,354.21 |
| | | | 3/23/2020 | 59.41 | 3,354.23 |
| | | | 9/23/2020 | 59.51 | 3,354.13 |
| | | | 3/30/2021 | 59.62 | 3,354.02 |
| | | | 10/7/2021 | 59.76 | 3,353.88 |
| | | | 4/13/2022 | 59.82 | 3,353.82 |
| | | | 11/8/2022 | 59.85 | 3,353.79 |
| MW-2 | 3,412.88 | 74.18 | 2/7/2013 | 59.10 | 3,353.78 |
| | | | 5/10/2013 | 58.20 | 3,354.68 |
| | | | 9/3/2013 | 58.21 | 3,354.67 |
| | | | 7/30/2014 | 58.02 | 3,354.86 |
| | | | 10/31/2014 | 57.91 | 3,354.97 |
| | | | 1/21/2015 | 57.75 | 3,355.13 |
| | | | 4/21/2015 | 57.76 | 3,355.12 |
| | | | 12/21/2015 | 57.84 | 3,355.04 |
| | | | 6/1/2016 | 57.79 | 3,355.09 |
| | | | 12/8/2016 | 57.78 | 3,355.10 |
| | | | 5/9/2017 | 57.71 | 3,355.17 |
| | | | 11/15/2017 | 57.75 | 3,355.13 |
| | | | 5/10/2018 | 57.75 | 3,355.13 |
| | | | 5/17/2018 | 57.77 | 3,355.11 |
| | | | 11/12/2018 | 57.97 | 3,354.91 |
| | | | 5/14/2019 | 57.97 | 3,354.91 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 58.20 | 3,354.68 |
| | | | 3/23/2020 | 58.19 | 3,354.69 |
| | | | 9/23/2020 | 58.34 | 3,354.54 |
| | | | 3/30/2021 | 58.43 | 3,354.45 |
| | | | 10/7/2021 | 59.25 | 3,353.63 |
| | | | 4/13/2022 | 64.65 | 3,348.23 |
| | | | 11/8/2022 | 58.78 | 3,354.10 |

**Summary of Groundwater Gauging and Elevation Data**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | TOC Elevation (ft) | Total Well Depth (ft bgs) | Date Measured | Depth to Groundwater (ft below TOC) | Groundwater Elevation (ft AMSL) |
|---|---|---|---|---|---|
| MW-3 | 3,412.96 | 74.04 | 2/7/2013 | 58.49 | 3,354.47 |
| | | | 5/10/2013 | 58.35 | 3,354.61 |
| | | | 9/3/2013 | 58.32 | 3,354.64 |
| | | | 7/30/2014 | 58.26 | 3,354.70 |
| | | | 10/31/2014 | 58.19 | 3,354.77 |
| | | | 1/21/2015 | 58.01 | 3,354.95 |
| | | | 4/21/2015 | 58.96 | 3,354.00 |
| | | | 12/21/2015 | 58.04 | 3,354.92 |
| | | | 6/1/2016 | 57.93 | 3,355.03 |
| | | | 12/8/2016 | 58.94 | 3,354.02 |
| | | | 5/9/2017 | 57.82 | 3,355.14 |
| | | | 11/15/2017 | 57.88 | 3,355.08 |
| | | | 5/10/2018 | 58.82 | 3,354.14 |
| | | | 5/17/2019 | 58.80 | 3,354.16 |
| | | | 11/12/2018 | 58.87 | 3,354.09 |
| | | | 5/14/2019 | 58.07 | 3,354.89 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 58.28 | 3,354.68 |
| | | | 3/23/2020 | 58.29 | 3,354.67 |
| | | | 9/23/2020 | 58.43 | 3,354.53 |
| | | | 3/30/2021 | 58.52 | 3,354.44 |
| | | | 10/7/2021 | 58.73 | 3,354.23 |
| | | | 4/13/2022 | 58.74 | 3,354.22 |
| | | | 11/8/2022 | 58.83 | 3,354.13 |
| MW-4 | 3,413.15 | 72.65 | 9/3/2013 | 59.18 | 3,353.97 |
| | | | 7/30/2014 | 58.62 | 3,354.53 |
| | | | 10/31/2014 | 58.47 | 3,354.68 |
| | | | 1/21/2015 | 58.33 | 3,354.82 |
| | | | 4/21/2015 | 58.31 | 3,354.84 |
| | | | 12/21/2015 | 58.36 | 3,354.79 |
| | | | 6/1/2016 | 58.32 | 3,354.83 |
| | | | 12/8/2016 | 58.31 | 3,354.84 |
| | | | 5/9/2017 | 58.25 | 3,354.90 |
| | | | 11/15/2017 | 58.34 | 3,354.81 |
| | | | 5/10/2018 | 58.38 | 3,354.77 |
| | | | 5/17/2018 | 58.40 | 3,354.75 |
| | | | 11/12/2018 | 58.51 | 3,354.64 |
| | | | 5/14/2019 | 58.60 | 3,354.55 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 58.82 | 3,354.33 |
| | | | 3/23/2020 | 58.81 | 3,354.34 |
| | | | 9/23/2020 | 58.95 | 3,354.20 |
| | | | 3/30/2021 | 65.04 | 3,348.11 |
| | | | 10/7/2021 | 58.61 | 3,354.54 |
| | | | 4/13/2022 | 59.24 | 3,353.91 |
| | | | 11/8/2022 | 59.26 | 3,353.89 |

**Table 1**

**Summary of Groundwater Gauging and Elevation Data**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | TOC Elevation (ft) | Total Well Depth (ft bgs) | Date Measured | Depth to Groundwater (ft below TOC) | Groundwater Elevation (ft AMSL) |
|---|---|---|---|---|---|
| MW-5 | 3,413.53 | 73.32 | 9/3/2013 | 59.23 | 3,354.30 |
| | | | 7/30/2014 | 59.14 | 3,354.39 |
| | | | 10/31/2014 | 59.12 | 3,354.41 |
| | | | 1/21/2015 | 58.93 | 3,354.60 |
| | | | 4/21/2015 | 58.97 | 3,354.56 |
| | | | 6/1/2016 | 58.90 | 3,354.63 |
| | | | 12/8/2016 | 58.87 | 3,354.66 |
| | | | 5/9/2017 | 58.82 | 3,354.71 |
| | | | 11/15/2017 | 58.90 | 3,354.63 |
| | | | 5/10/2018 | 58.92 | 3,354.61 |
| | | | 5/17/2018 | 58.92 | 3,354.61 |
| | | | 11/12/2018 | 58.92 | 3,354.61 |
| | | | 5/14/2019 | 59.23 | 3,354.30 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 59.40 | 3,354.13 |
| | | | 3/23/2020 | 59.40 | 3,354.13 |
| | | | 9/23/2020 | 59.63 | 3,353.90 |
| | | | 3/30/2021 | 59.62 | 3,353.91 |
| | | | 10/7/2021 | 59.73 | 3,353.80 |
| | | | 4/13/2022 | 59.79 | 3,353.74 |
| | | | 11/8/2022 | 59.78 | 3,353.75 |
| MW-6 | 3,413.30 | 69.21 | 9/3/2013* | 59.10 | 3,354.20 |
| | | | 7/30/2014 | 59.03 | 3,354.27 |
| | | | 10/31/2014 | 59.06 | 3,354.24 |
| | | | 1/21/2015 | 58.94 | 3,354.36 |
| | | | 4/21/2015 | 58.95 | 3,354.35 |
| | | | 12/21/2015 | 58.89 | 3,354.41 |
| | | | 6/1/2016 | 58.81 | 3,354.49 |
| | | | 12/8/2016 | 58.80 | 3,354.50 |
| | | | 5/9/2017 | 58.74 | 3,354.56 |
| | | | 11/15/2017 | 58.80 | 3,354.50 |
| | | | 5/10/2018 | 58.82 | 3,354.48 |
| | | | 5/17/2018 | 58.80 | 3,354.50 |
| | | | 11/12/2018 | 58.82 | 3,354.48 |
| | | | 5/14/2019 | 59.14 | 3,354.16 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 59.30 | 3,354.00 |
| | | | 3/23/2020 | 59.28 | 3,354.02 |
| | | | 9/23/2020 | 59.40 | 3,353.90 |
| | | | 3/30/2021 | 59.55 | 3,353.75 |
| | | | 10/7/2021 | 58.64 | 3,354.66 |
| | | | 4/13/2022 | 59.66 | 3,353.64 |
| | | | 11/8/2022 | 59.64 | 3,353.66 |

**Table 1**

**Summary of Groundwater Gauging and Elevation Data**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | TOC Elevation (ft) | Total Well Depth (ft bgs) | Date Measured | Depth to Groundwater (ft below TOC) | Groundwater Elevation (ft AMSL) |
|---|---|---|---|---|---|
| MW-7 | 3,413.01 | 72.14 | 9/3/2013 | 58.62 | 3,354.39 |
| | | | 7/30/2014 | 58.53 | 3,354.48 |
| | | | 10/31/2014 | 58.57 | 3,354.44 |
| | | | 1/21/2015 | 58.44 | 3,354.57 |
| | | | 4/21/2015 | 58.35 | 3,354.66 |
| | | | 12/21/2015 | 58.36 | 3,354.65 |
| | | | 6/1/2016 | 58.27 | 3,354.74 |
| | | | 12/8/2016 | 58.27 | 3,354.74 |
| | | | 5/9/2017 | 58.16 | 3,354.85 |
| | | | 11/15/2017 | 58.23 | 3,354.78 |
| | | | 5/10/2018 | 58.22 | 3,354.79 |
| | | | 5/17/2018 | 58.12 | 3,354.89 |
| | | | 11/12/2018 | 58.12 | 3,354.89 |
| | | | 5/14/2019 | 58.49 | 3,354.52 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 58.69 | 3,354.32 |
| | | | 3/23/2020 | 58.66 | 3,354.35 |
| | | | 9/23/2020 | 58.79 | 3,354.22 |
| | | | 3/30/2021 | 58.88 | 3,354.13 |
| | | | 10/7/2021 | 59.02 | 3,353.99 |
| | | | 4/13/2022 | 59.07 | 3,353.94 |
| | | | 11/8/2022 | 59.10 | 3,353.91 |
| MW-8 | 3,412.02 | 71.66 | 1/21/2015 | 57.84 | 3,354.18 |
| | | | 4/21/2015 | 57.75 | 3,354.27 |
| | | | 12/21/2015 | 57.75 | 3,354.27 |
| | | | 6/1/2016 | 57.65 | 3,354.37 |
| | | | 12/8/2016 | 57.62 | 3,354.40 |
| | | | 5/9/2017 | 57.65 | 3,354.37 |
| | | | 11/15/2017 | 57.60 | 3,354.42 |
| | | | 5/10/2018 | 57.70 | 3,354.32 |
| | | | 5/17/2018 | 57.73 | 3,354.29 |
| | | | 11/12/2018 | 57.63 | 3,354.39 |
| | | | 5/14/2019 | 57.98 | 3,354.04 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 58.41 | 3,353.61 |
| | | | 3/23/2020 | 58.33 | 3,353.69 |
| | | | 9/23/2020 | 58.45 | 3,353.57 |
| | | | 3/30/2021 | 58.58 | 3,353.44 |
| | | | 10/7/2021 | 58.47 | 3,353.55 |
| | | | 4/13/2022 | 58.47 | 3,353.55 |
| | | | 11/8/2022 | 58.41 | 3,353.61 |
| MW-9 | 3,412.38 | 71.34 | 1/21/2015 | 58.21 | 3,354.17 |
| | | | 4/21/2015 | 58.10 | 3,354.28 |
| | | | 12/21/2015 | 58.10 | 3,354.28 |
| | | | 6/1/2016 | 58.02 | 3,354.36 |
| | | | 12/8/2016 | 58.00 | 3,354.38 |
| | | | 5/9/2017 | 58.00 | 3,354.38 |
| | | | 11/15/2017 | 58.08 | 3,354.30 |
| | | | 5/10/2018 | 58.10 | 3,354.28 |
| | | | 5/17/2018 | 58.10 | 3,354.28 |
| | | | 11/12/2018 | 58.05 | 3,354.33 |
| | | | 5/14/2019 | 58.45 | 3,353.93 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 58.64 | 3,353.74 |
| | | | 3/23/2020 | 58.66 | 3,353.72 |
| | | | 9/23/2020 | 58.50 | 3,353.88 |
| | | | 3/30/2021 | 58.90 | 3,353.48 |
| | | | 10/7/2021 | 58.95 | 3,353.43 |
| | | | 4/13/2022 | 58.90 | 3,353.48 |
| | | | 11/8/2022 | 59.02 | 3,353.36 |

**Table 1**

**Summary of Groundwater Gauging and Elevation Data**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | TOC Elevation (ft) | Total Well Depth (ft bgs) | Date Measured | Depth to Groundwater (ft below TOC) | Groundwater Elevation (ft AMSL) |
|---|---|---|---|---|---|
| MW-10 | 3411.86 | 70.32 | 12/21/2015 | 57.24 | 3,354.62 |
| | | | 6/1/2016 | 57.15 | 3,354.71 |
| | | | 12/8/2016 | 57.10 | 3,354.76 |
| | | | 5/9/2017 | 57.01 | 3,354.85 |
| | | | 11/15/2017 | 57.03 | 3,354.83 |
| | | | 5/10/2018 | 57.06 | 3,354.80 |
| | | | 5/17/2018 | 57.09 | 3,354.77 |
| | | | 11/12/2018 | 57.00 | 3,354.86 |
| | | | 5/14/2019 | 57.32 | 3,354.54 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 57.53 | 3,354.33 |
| | | | 3/23/2020 | 57.49 | 3,354.37 |
| | | | 9/23/2020 | 57.70 | 3,354.16 |
| | | | 3/30/2021 | 57.71 | 3,354.15 |
| | | | 10/7/2021 | 57.85 | 3,354.01 |
| | | | 4/3/2022 | 57.90 | 3,353.96 |
| | | | 11/8/2022 | 58.07 | 3,353.79 |
| MW-11 | 3412.14 | 70.32 | 12/21/2015 | 58.01 | 3,354.13 |
| | | | 6/1/2016 | 57.92 | 3,354.22 |
| | | | 12/8/2016 | 57.92 | 3,354.22 |
| | | | 5/9/2017 | 57.86 | 3,354.28 |
| | | | 11/15/2017 | 57.98 | 3,354.16 |
| | | | 5/10/2018 | 58.07 | 3,354.07 |
| | | | 5/17/2018 | 57.06 | 3,355.08 |
| | | | 11/12/2018 | 58.03 | 3,354.11 |
| | | | 5/14/2019 | 58.43 | 3353.71 |
| | | | 11/12/2019 | Electronic field data lost. | |
| | | | 1/16/2020 | 58.56 | 3,353.58 |
| | | | 3/23/2020 | 58.50 | 3,353.64 |
| | | | 9/23/2020 | 58.65 | 3,353.49 |
| | | | 3/30/2021 | 58.80 | 3,353.34 |
| | | | 10/7/2021 | 58.87 | 3,353.27 |
| | | | 4/13/2022 | 58.82 | 3,353.32 |
| | | | 11/8/2022 | 58.69 | 3,353.45 |

Notes:
1) ft bgs = feet below ground surface
2) TOC = top of casing
3) AMSL = above mean sea level
4) LNAPL = light non-aqueous phase liquid
5) LNPAL has never been observed in the monitoring wells.

Table 2

**Summary of Groundwater Field Parameters**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Field Temperature (°C) | pH | Conductivity (mS/cm) | DO (mg/L) | ORP (mV) |
|---|---|---|---|---|---|---|
| MW-1 | 7/30/2014 | 27.00 | 6.71 | 4,440 | 4.10 | -129 |
| | 10/30/2014 | -- | -- | -- | -- | -- |
| | 1/21/2015 | 8.20 | 7.76 | 2,880 | 28.9 | -31.6 |
| | 4/21/2015 | 21.00 | 6.66 | 3,790 | 3.60 | 3.20 |
| | 12/21/2015 | 19.89 | 6.89 | 3,850 | 3.56 | -90.7 |
| | 6/1/2016 | 20.40 | 6.76 | 2,940 | 1.71 | -124 |
| | 12/9/2016 | 19.00 | 6.37 | 2,560 | 5.22 | -114 |
| | 5/9/2017 | 19.39 | 6.93 | 3,020 | 2.05 | -147 |
| | 11/15/2017 | 18.00 | 7.17 | 4,070 | 2.16 | -45.3 |
| | 5/17/2018 | 18.87 | 6.73 | 3,960 | -- | -181 |
| | 11/12/2018 | 16.48 | 6.95 | 4,800 | 4.51 | -120 |
| | 5/14/2019 | 17.39 | 6.30 | 3,290 | 4.25 | -153 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 3/23/2020 | 19.59 | 6.64 | 3,300 | 2.60 | -200 |
| | 9/23/2020 | 19.90 | 7.17 | 1,880 | 3.01 | -72.9 |
| | 3/30/2021 | 20.53 | 7.02 | 1,670 | 1.24 | -98.0 |
| | 10/7/2021 | 20.46 | 7.19 | 1,190 | 1.43 | -120 |
| | 4/13/2022 | 20.30 | 6.98 | 1,800 | 1.11 | 21.5 |
| | 11/8/2022 | 20.23 | 6.91 | 1,730 | 1.56 | 75.5 |
| MW-2 | 7/31/2014 | 24.40 | 7.05 | 1,510 | 21.5 | 215 |
| | 10/30/2014 | -- | -- | -- | -- | -- |
| | 1/21/2015 | 12.90 | 7.40 | 1,650 | 23.1 | 242 |
| | 4/21/2015 | 19.30 | 6.94 | 1,650 | 4.10 | 322 |
| | 12/21/2015 | 19.59 | 7.31 | 1,960 | 3.06 | -41.4 |
| | 6/1/2016 | 20.10 | 6.93 | 1,650 | 1.93 | 37.4 |
| | 12/9/2016 | 18.61 | 6.97 | 1,640 | 1.76 | -113 |
| | 5/9/2017 | 19.06 | 6.37 | 1,680 | 2.72 | -58.5 |
| | 11/15/2017 | 17.54 | 7.39 | 1,980 | 2.99 | 108 |
| | 5/17/2018 | 18.51 | 6.97 | 1,630 | -- | -61.8 |
| | 11/12/2018 | 17.35 | 7.12 | 1,710 | 5.33 | -103 |
| | 5/14/2019 | 17.60 | 6.66 | 1,460 | 4.97 | -66.4 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 3/23/2020 | 19.60 | 6.82 | 1,780 | 3.23 | 9.00 |
| | 9/23/2020 | 20.50 | 7.25 | 1,400 | 2.31 | 38.4 |
| | 10/7/2021 | 20.71 | 7.32 | 912 | 1.71 | 20.8 |
| | 11/8/2022 | 21.34 | 7.54 | 1610 | 270 | 262 |
| MW-3 | 7/31/2014 | 21.00 | 7.13 | 1,170 | 16.1 | 571 |
| | 10/30/2014 | -- | -- | -- | -- | -- |
| | 1/21/2015 | 9.70 | 7.71 | 1,430 | 52.3 | 409 |
| | 4/21/2015 | 18.70 | 7.12 | 1,350 | 38.1 | 256 |
| | 12/21/2015 | 19.70 | 7.36 | 1,470 | 3.11 | -55.3 |
| | 11/15/2017 | 17.81 | 7.55 | 1,600 | 2.44 | 118 |
| | 5/17/2018 | -- | -- | -- | -- | -- |
| | 11/12/2018 | 15.65 | 7.34 | 1,390 | 4.88 | -101.1 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 9/23/2020 | 21.81 | 7.35 | 1,260 | 2.76 | 137 |
| | 3/30/2021 | 20.17 | 7.24 | 1,140 | 1.08 | 247 |
| | 10/7/2021 | 20.61 | 7.38 | 861 | 1.97 | 133 |
| | 4/13/2022 | 19.50 | 7.26 | 1,330 | 2.28 | 189 |
| | 11/8/2022 | 19.99 | 7.27 | 1,860 | 7.04 | 256 |

Table 2

**Summary of Groundwater Field Parameters**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Field Temperature (°C) | pH | Conductivity (mS/cm) | DO (mg/L) | ORP (mV) |
|---|---|---|---|---|---|---|
| MW-4 | 7/30/2014 | 23.60 | 6.97 | 1,240 | 34.6 | 568 |
| | 10/30/2014 | -- | -- | -- | -- | -- |
| | 1/21/2015 | 15.00 | 7.31 | 1,390 | 26.6 | 525 |
| | 4/21/2015 | 19.50 | 6.97 | 1,420 | 18.0 | 463 |
| | 12/21/2015 | 19.71 | 7.00 | 1,620 | 3.01 | -47.3 |
| | 11/15/2017 | 17.74 | 7.25 | 1,580 | 2.56 | 125 |
| | 5/17/2018 | -- | -- | -- | -- | -- |
| | 11/12/2018 | 16.91 | 7.13 | 1,360 | 3.13 | -84.1 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 9/23/2020 | 20.66 | 7.14 | 1,160 | 0.880 | 24.5 |
| | 10/7/2021 | 20.52 | 7.27 | 795 | 0.700 | -10.5 |
| | 11/8/2022 | 20.31 | 7.02 | 1,400 | 1.75 | 226 |
| MW-5 | 7/30/2014 | 22.70 | 6.86 | 1,210 | 10.1 | 55.7 |
| | 10/30/2014 | -- | -- | -- | -- | -- |
| | 1/21/2015 | 15.40 | 7.31 | 1,190 | 22.8 | 510 |
| | 4/21/2015 | 19.90 | 6.79 | 13,230 | 6.30 | 283 |
| | 11/15/2017 | 17.86 | 7.11 | 1,550 | 1.29 | -50.3 |
| | 5/17/2018 | -- | -- | -- | -- | -- |
| | 11/12/2018 | 17.05 | 6.95 | 1,320 | 3.71 | -110 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 9/23/2020 | 20.50 | 7.00 | 1,150 | 0.870 | -112 |
| | 10/7/2021 | 20.49 | 7.18 | 746 | 1.06 | -96.3 |
| | 11/8/2022 | 20.94 | 6.85 | 1,320 | 1.03 | 133 |
| MW-6 | 7/30/2014 | 24.60 | 6.67 | 4,320 | 2.70 | -145 |
| | 10/30/2014 | -- | -- | -- | -- | -- |
| | 1/21/2015 | 7.30 | 8.11 | 3,480 | 50.3 | 109 |
| | 4/21/2015 | 20.80 | 6.60 | 4,920 | 2.30 | -30.9 |
| | 12/21/2015 | 19.56 | 6.99 | 6,450 | 3.14 | -106 |
| | 6/2/2016 | 20.00 | 6.39 | 5,290 | 1.25 | -93.8 |
| | 12/9/2016 | 18.90 | 6.99 | 4,390 | 1.88 | -170 |
| | 5/9/2017 | 19.08 | 7.92 | 4,290 | 4.50 | -73.8 |
| | 11/15/2017 | 17.72 | 7.38 | 4,350 | 1.01 | -73.1 |
| | 5/17/2018 | 18.61 | 6.19 | 3,400 | -- | -145 |
| | 11/12/2018 | 16.55 | 6.92 | 2,310 | 3.03 | -88.1 |
| | 5/14/2019 | 16.79 | 6.47 | 1,760 | 5.10 | -118 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 3/23/2020 | 19.51 | 6.72 | 2,120 | 2.06 | -77 |
| | 7/28/2020 | 21.70 | 7.71 | 1,560 | 4.23 | -43.5 |
| | 9/23/2020 | 20.54 | 7.08 | 1,760 | 1.08 | -62.7 |
| | 3/30/2021 | 20.08 | 7.04 | 1,470 | 1.12 | -74.4 |
| | 10/7/2021 | 20.44 | 4.20 | 968 | 1.09 | -96.5 |
| | 4/13/2022 | 19.50 | 7.10 | 1,450 | 1.52 | 80 |
| | 11/8/2022 | 20.72 | 7.44 | 1,660 | 1.43 | 178 |

Table 2

**Summary of Groundwater Field Parameters**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Field Temperature (°C) | pH | Conductivity (mS/cm) | DO (mg/L) | ORP (mV) |
|---|---|---|---|---|---|---|
| MW-7 | 7/30/2014 | 24.10 | 7.01 | 1,410 | 6.50 | -107 |
| | 10/30/2014 | -- | -- | -- | -- | -- |
| | 1/21/2015 | 7.20 | 7.91 | 2,720 | 43.8 | 111 |
| | 4/21/2015 | 21.10 | 6.95 | 1,940 | 10.0 | 270 |
| | 12/21/2015 | 19.61 | 7.07 | 1,920 | 2.57 | -108 |
| | 6/2/2016 | 20.20 | 7.08 | 1,580 | 1.47 | -116 |
| | 12/9/2016 | 19.02 | 7.17 | 1,500 | 3.11 | 74.8 |
| | 5/9/2017 | 19.27 | 6.91 | 1,400 | 2.24 | -147 |
| | 11/15/2017 | 17.64 | 7.49 | 1,760 | 1.67 | -29.0 |
| | 5/17/2018 | 18.51 | 7.12 | 1,500 | -- | -100 |
| | 11/12/2018 | 16.85 | 7.15 | 1,570 | 3.73 | -70.0 |
| | 5/14/2019 | 18.06 | 6.54 | 1,350 | 2.98 | -98.9 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 3/23/2020 | 19.52 | 6.85 | 1,620 | 2.41 | -53.4 |
| | 9/23/2020 | 20.80 | 7.19 | 1,400 | 1.28 | -36.9 |
| | 3/30/2021 | 20.24 | 7.15 | 1,340 | 1.67 | -59.0 |
| | 10/7/2021 | 20.50 | 7.29 | 1,010 | 1.72 | -81.9 |
| | 4/13/2022 | 19.59 | 7.17 | 1,590 | 2.67 | 64.6 |
| | 11/8/2022 | 20.48 | 6.95 | 2,040 | 1.86 | 141 |
| MW-8 | 1/21/2015 | 8.20 | 8.14 | 1200 | 40.2 | 317 |
| | 4/21/2015 | 20.10 | 6.93 | 1,940 | 10.6 | 517 |
| | 12/21/2015 | 19.14 | 7.09 | 2,140 | 3.68 | -55.7 |
| | 6/2/2016 | 19.80 | 7.08 | 1,820 | 1.43 | 130 |
| | 12/9/2016 | 18.54 | 7.22 | 1,900 | 8.28 | 464 |
| | 5/9/2017 | 18.65 | 6.92 | 1,940 | 6.38 | 335 |
| | 11/15/2017 | 17.53 | 7.50 | 2,350 | 1.89 | 20.0 |
| | 5/17/2018 | 18.43 | 6.97 | 1,950 | -- | -76.8 |
| | 11/12/2018 | 15.88 | 7.21 | 2,080 | 5.72 | -73.1 |
| | 5/14/2019 | 17.05 | 6.63 | 816 | 9.46 | -53.1 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 3/23/2020 | 19.43 | 6.93 | 1,750 | 3.50 | -21 |
| | 7/28/2020 | 20.70 | 8.18 | 1,030 | 10.2 | -62.7 |
| | 9/23/2020 | 21.68 | 7.48 | 1,480 | 4.20 | 486 |
| | 3/30/2021 | 20.22 | 7.22 | 1,290 | 1.27 | -93.8 |
| | 10/7/2021 | 20.44 | 7.32 | 926 | 1.26 | -95.9 |
| | 4/13/2022 | 19.43 | 7.22 | 1,380 | 2.39 | 69.6 |
| | 11/8/2022 | 20.13 | 7.00 | 1,530 | 2.76 | 154 |
| MW-9 | 1/21/2015 | 6.00 | 8.33 | 1,180 | 60.9 | 202 |
| | 4/21/2015 | 19.80 | 6.89 | 1,300 | 6.50 | 276 |
| | 12/21/2015 | 19.31 | 7.09 | 1,400 | 3.04 | -50.1 |
| | 6/2/2016 | 19.90 | 6.93 | 1,180 | 1.23 | -115 |
| | 12/9/2016 | 18.72 | 7.15 | 1,150 | 7.87 | -122 |
| | 5/9/2017 | 18.88 | 6.68 | 1,140 | 3.76 | -139 |
| | 11/15/2017 | 17.68 | 7.16 | 1,460 | 1.41 | -77.6 |
| | 5/17/2018 | 18.07 | 6.72 | 1,200 | -- | -208 |
| | 11/12/2018 | 16.81 | 7.03 | 1,220 | 2.95 | -144 |
| | 5/14/2019 | 17.18 | 6.59 | 1,030 | 3.84 | -166 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 3/23/2020 | 19.14 | 6.85 | 1,670 | 2.13 | -200 |
| | 7/28/2020 | 21.40 | 7.67 | 1,670 | 10.2 | -87.4 |
| | 9/23/2020 | 20.53 | 7.43 | 1,560 | 1.44 | -109 |
| | 3/30/2021 | 20.21 | 7.00 | 1,920 | 1.02 | -124 |
| | 10/7/2021 | 21.25 | 7.12 | 1,380 | 1.12 | -138 |
| | 4/13/2022 | 20.15 | 6.87 | 2,320 | 1.02 | 72.1 |
| | 11/8/2022 | 20.22 | 6.55 | 2,580 | 1.74 | 112 |

Table 2

**Summary of Groundwater Field Parameters**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Field Temperature (°C) | pH | Conductivity (mS/cm) | DO (mg/L) | ORP (mV) |
|---|---|---|---|---|---|---|
| MW-10 | 12/21/2015 | 19.20 | 7.49 | 3,620 | 7.07 | -9.4 |
| | 6/2/2016 | 20.10 | 7.23 | 3,250 | 3.74 | 97.2 |
| | 12/9/2016 | 18.64 | 7.23 | 3,180 | 3.76 | 420 |
| | 5/9/2017 | 18.74 | 5.98 | 3,540 | 2.97 | -16.7 |
| | 11/15/2017 | 17.49 | 7.30 | 4,690 | 2.06 | 73.5 |
| | 5/17/2018 | 18.81 | 7.00 | 3,820 | -- | -50.1 |
| | 11/12/2018 | 16.82 | 7.33 | 4,570 | 3.70 | -74.0 |
| | 5/14/2019 | 17.32 | 6.70 | 3,720 | 5.96 | -60.6 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 3/23/2020 | 19.22 | 6.91 | 4,680 | 3.49 | 5.40 |
| | 9/23/2020 | 20.67 | 7.19 | 4,640 | 2.75 | 135 |
| | 3/30/2021 | 20.19 | 7.11 | 4,510 | 2.34 | 39.3 |
| | 10/7/2021 | 20.35 | 7.20 | 3,470 | 2.75 | 44.4 |
| | 4/13/2022 | 19.44 | 7.03 | 5,650 | 2.34 | 186 |
| | 11/8/2022 | 19.69 | 6.94 | 6,440 | 3.53 | 264 |
| MW-11 | 12/21/2015 | 18.44 | 7.41 | 1,290 | 6.97 | 43.2 |
| | 6/2/2016 | 19.80 | 7.36 | 1,120 | 6.51 | 386 |
| | 12/9/2016 | 18.56 | 7.34 | 1,086 | 6.85 | 437 |
| | 5/9/2017 | 18.82 | 7.09 | 1,121 | 4.94 | -60.8 |
| | 11/15/2017 | 17.34 | 7.42 | 1,385 | 3.89 | 7.50 |
| | 5/17/2018 | 18.04 | 7.16 | 1,204 | -- | -60.2 |
| | 11/12/2018 | 15.99 | 7.45 | 1,238 | 7.81 | -76.2 |
| | 5/14/2019 | 16.63 | 6.90 | 812 | 5.70 | -58.4 |
| | 11/12/2019 | Electronic field data lost. | | | | |
| | 3/23/2020 | 19.94 | 6.99 | 1,247 | 2.64 | -7.00 |
| | 7/28/2020 | 20.90 | 8.19 | 1,000 | 5.97 | -41.9 |
| | 9/23/2020 | 20.44 | 7.30 | 1,049 | 1.42 | -79.5 |
| | 3/30/2021 | 20.17 | 7.25 | 948 | 1.63 | -58.2 |
| | 10/7/2021 | 20.22 | 7.44 | 666 | 1.99 | -83.4 |
| | 4/13/2022 | 19.37 | 7.31 | 1,030 | 2.23 | 96.2 |
| | 11/8/2022 | 20.04 | 7.07 | 1,070 | 1.97 | 162 |

Notes:
1) C° = degrees Celsius
2) µS/cm = microsiemens per centimeter
3) DO = dissolved oxygen
4) mg/L = milligrams per liter
5) ORP = oxygen reduction potential
6) mV = millivolts
7) -- = data not collected

**Table 3**

**Summary of Groundwater Analytical Results**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Benzene | Toluene | Ethylbenzene | Total Xylenes | Chloride |
|---|---|---|---|---|---|---|
| NMWQCC Groundwater | | 0.005 | 1.0 | 0.7 | 0.62 | 250 |
| MW-1 | 2/7/2013* | 0.516 | <0.00100 | 0.0688 | 0.0291 | 1,200 |
| | 5/10/2013* | 0.551 | 0.0915 | 0.146 | 0.114 | 901 |
| | 9/3/2013* | 0.00500 | -- | 0.0172 | 0.0366 | 561 |
| | 2/28/2014* | 0.395 | <0.00200 | 0.0850 | 0.0350 | 1,220 |
| | 7/30/2014 | <0.00100 | <0.00200 | <0.00100 | 0.0178 | 1,190 |
| | 10/31/2014 | 0.00500 | -- | 0.0671 | <0.00100 | 871 |
| | 1/21/2015 | 0.137 | <0.0500 | 0.111 | <0.05000 | 618 |
| | 4/21/2015 | 0.104 | <0.00100 | 0.0324 | <0.00100 | 845 |
| | 12/21/2015 | 0.00500 | -- | 0.011 | 0.00210 | 890 |
| | 6/1/2016 | 0.0210 | <0.00100 | 0.00730 | <0.00150 | 850 |
| | 12/9/2016 | 0.00300 | <0.00100 | 0.00200 | <0.00150 | 600 |
| | 5/9/2017 | 0.00500 | -- | 0.00480 | <0.00150 | 650 |
| | 11/15/2017 | 0.00960 | <0.00100 | 0.00280 | <0.00150 | 700 |
| | 5/10/2018 | -- | -- | -- | -- | 490 |
| | 5/17/2018 | 0.00500 | <0.00100 | 0.00520 | <0.00150 | -- |
| | 11/12/2018 | 0.00300 | <0.00100 | 0.00160 | <0.00150 | 1,400 |
| | 5/14/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 1,200 |
| | 11/12/2019 | 0.00500 | | <0.00100 | <0.00200 | 860 |
| | 3/23/2020 | 0.00180 | <0.00100 | <0.00100 | <0.00150 | 710 |
| | 9/23/2020 | 0.00220 | <0.00100 | <0.00100 | <0.00150 | 410 |
| | 3/30/2021 | 0.00220 | <0.00100 | <0.00100 | <0.00150 | 300 |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 290 |
| | 4/13/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 230 |
| | 11/8/2022 | 0.00140 | <0.00100 | <0.00100 | <0.00150 | 210 |
| MW-2 | 2/7/2013* | <0.00100 | <0.00200 | <0.00100 | <0.00200 | 142 |
| | 5/10/2013* | <0.00100 | <0.00200 | <0.00100 | <0.00200 | 138 |
| | 9/3/2013* | 0.00500 | <0.00100 | <0.00100 | <0.00200 | 139 |
| | 2/28/2014* | <0.00100 | <0.00200 | <0.00100 | <0.00100 | 134 |
| | 7/31/2014 | <0.00100 | <0.00200 | <0.00100 | <0.00100 | 144 |
| | 10/31/2014 | 0.00500 | <0.00100 | <0.00100 | <0.00100 | 168 |
| | 1/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 167 |
| | 4/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 159 |
| | 12/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 170 |
| | 6/1/2016 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 180 |
| | 12/9/2016 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 190 |
| | 5/9/2017 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 190 |
| | 11/15/2017 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 170 |
| | 5/10/2018 | -- | -- | -- | -- | 67.0 |
| | 5/17/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | -- |
| | 11/12/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 190 |
| | 5/14/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 180 |
| | 11/12/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00200 | 170 |
| | 3/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 180 |
| | 9/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 160 |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 170 |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 200 |

**Table 3**

**Summary of Groundwater Analytical Results**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Benzene | Toluene | Ethylbenzene | Total Xylenes | Chloride |
|---|---|---|---|---|---|---|
| **NMWQCC Groundwater** | | **0.005** | **1.0** | **0.7** | **0.62** | **250** |
| MW-3 | 2/7/2013* | <0.00100 | <0.00200 | <0.00100 | <0.00200 | 102 |
| | 5/10/2013* | <0.00100 | <0.00200 | <0.00100 | <0.00200 | 91.3 |
| | 9/3/2013* | <0.00100 | <0.00100 | <0.00100 | <0.00200 | 75.9 |
| | 2/28/2014* | <0.00100 | <0.00200 | <0.00100 | <0.00100 | 95.4 |
| | 7/31/2014 | <0.00100 | <0.00200 | <0.00100 | <0.00100 | 89.9 |
| | 10/31/2014 | 0.00460 | <0.00100 | <0.00100 | <0.00100 | 114 |
| | 1/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 111 |
| | 4/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 114 |
| | 12/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 110 |
| | 6/1/2016 | Not Sampled | | | | |
| | 12/9/2016 | Not Sampled | | | | |
| | 5/9/2017 | Not Sampled | | | | |
| | 11/15/2017 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 130 |
| | 5/17/2018 | Not Sampled | | | | |
| | 11/12/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 130 |
| | 11/12/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00200 | 130 |
| | 9/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 150 |
| | 3/30/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 160 |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 180 |
| | 4/13/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 200 |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **280** |
| MW-4 | 9/3/2013* | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 86.9 |
| | 2/28/2014* | <0.00100 | <0.00200 | <0.00100 | <0.00100 | 89.7 |
| | 7/30/2014 | <0.00100 | <0.00200 | <0.00100 | <0.00100 | 98.8 |
| | 10/31/2014 | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 106 |
| | 1/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 131 |
| | 4/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 120 |
| | 12/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 120 |
| | 6/1/2016 | Not Sampled | | | | |
| | 12/9/2016 | Not Sampled | | | | |
| | 5/9/2017 | Not Sampled | | | | |
| | 11/15/2017 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 98.0 |
| | 5/17/2018 | Not Sampled | | | | |
| | 11/12/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 100 |
| | 11/12/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00200 | 89.0 |
| | 9/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 100 |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 140 |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 140 |

**Table 3**

**Summary of Groundwater Analytical Results**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Benzene | Toluene | Ethylbenzene | Total Xylenes | Chloride |
|---|---|---|---|---|---|---|
| **NMWQCC Groundwater** | | **0.005** | **1.0** | **0.7** | **0.62** | **250** |
| MW-5 | 9/3/2013* | 0.00200 | <0.00100 | <0.00100 | <0.00100 | 85.7 |
| | 2/28/2014* | <0.00100 | <0.00200 | <0.00100 | <0.00100 | 87.1 |
| | 7/30/2014 | <0.00100 | <0.00200 | <0.00100 | 0.00410 | 73.4 |
| | 10/31/2014 | 0.00440 | <0.00100 | <0.00100 | 0.0145 | 77.1 |
| | 1/21/2015 | <0.00100 | <0.00100 | <0.00100 | 0.00280 | 69.9 |
| | 4/21/2015 | <0.00100 | <0.00100 | <0.00100 | 0.00970 | 73.3 |
| | 12/21/2015 | Not Sampled | | | | |
| | 6/1/2016 | Not Sampled | | | | |
| | 12/9/2016 | Not Sampled | | | | |
| | 5/9/2017 | Not Sampled | | | | |
| | 11/15/2017 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 73.0 |
| | 5/17/2018 | Not Sampled | | | | |
| | 11/12/2018 | 0.00170 | <0.00100 | <0.00100 | <0.00150 | 64.0 |
| | 11/12/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00200 | 78.0 |
| | 9/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 86.0 |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 86.0 |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 110 |
| MW-6 | 9/3/2013* | **0.469** | <0.00100 | 0.00613 | 0.03420 | **906** |
| | 2/28/2014* | **0.851** | <0.00100 | 0.0185 | 0.05900 | **1,290** |
| | 7/30/2014 | <0.00100 | <0.00200 | 0.00965 | 0.01030 | **1,010** |
| | 10/31/2014 | **0.647** | <0.05000 | <0.05000 | 0.36800 | **1,420** |
| | 1/21/2015 | **0.440** | <0.05000 | <0.05000 | <0.05000 | **429** |
| | 4/21/2015 | **0.790** | <0.05000 | <0.05000 | <0.05000 | **1,190** |
| | 12/21/2015 | **0.200** | <0.00100 | 0.00220 | 0.00340 | **1,700** |
| | 6/2/2016 | **0.0990** | <0.00100 | 0.00260 | 0.00390 | **1,500** |
| | 12/9/2016 | **0.0160** | <0.00100 | 0.00130 | 0.00150 | **1,400** |
| | 5/9/2017 | **0.0120** | <0.00100 | 0.00140 | 0.00160 | **1,100** |
| | 11/15/2017 | 0.00270 | <0.00100 | <0.00100 | <0.00150 | **1,200** |
| | 5/10/2018 | -- | -- | -- | -- | **560** |
| | 5/17/2018 | 0.00260 | <0.00100 | 0.00170 | <0.00150 | -- |
| | 11/12/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **390** |
| | 5/14/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **410** |
| | 11/12/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00200 | **380** |
| | 3/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **360** |
| | 9/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **250** |
| | 3/30/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **270** |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 210 |
| | 4/13/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 180 |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 180 |

**Table 3**

**Summary of Groundwater Analytical Results**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Benzene | Toluene | Ethylbenzene | Total Xylenes | Chloride |
|---|---|---|---|---|---|---|
| NMWQCC Groundwater | | 0.005 | 1.0 | 0.7 | 0.62 | 250 |
| MW-7 | 9/3/2013* | **0.0842** | <0.00100 | <0.00100 | <0.00200 | 91.0 |
| | 2/28/2014* | **0.0606** | <0.00200 | 0.00149 | <0.00100 | 88.3 |
| | 7/30/2014 | <0.00100 | <0.00200 | <0.00100 | <0.00100 | 70.6 |
| | 10/31/2014 | **0.0351** | <0.00100 | 0.00290 | 0.00660 | 72.2 |
| | 1/21/2015 | **0.0169** | <0.00100 | <0.00100 | <0.00100 | 46.6 |
| | 4/21/2015 | **0.0123** | <0.00100 | <0.00100 | <0.00100 | <25.0 |
| | 12/21/2015 | **0.0082** | <0.00100 | <0.00100 | <0.00150 | 110 |
| | 6/2/2016 | **0.0110** | <0.00100 | <0.00100 | <0.00150 | 99.0 |
| | 6/2/2016 (DUP) | **0.0120** | <0.00100 | <0.00100 | <0.00150 | 100 |
| | 12/9/2016 | 0.00310 | <0.00100 | <0.00100 | <0.00150 | 94.0 |
| | 12/9/2016 (DUP) | 0.00310 | <0.00100 | <0.00100 | <0.00150 | -- |
| | 5/9/2017 | **0.00780** | <0.00100 | <0.00100 | <0.00150 | 88.0 |
| | 11/15/2017 | 0.00150 | <0.00100 | <0.00100 | <0.00150 | 96.0 |
| | 5/10/2018 | -- | -- | -- | -- | 32.0 |
| | 5/17/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | -- |
| | 11/12/2018 | 0.00110 | <0.00100 | <0.00100 | <0.00150 | 150 |
| | 5/14/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 170 |
| | 11/12/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00200 | 130 |
| | 3/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 190 |
| | 9/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 180 |
| | 3/30/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 200 |
| | 12/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 230 |
| | 4/13/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **280** |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **370** |
| MW-8 | 1/21/2015 | <0.00100 | <0.00100 | <0.00100 | 0.0012 | **362** |
| | 4/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00100 | 184 |
| | 12/22/2015 | **0.0220** | <0.00100 | 0.00250 | <0.00150 | 190 |
| | 6/2/2016 | **0.0510** | <0.00100 | 0.00600 | <0.00150 | 170 |
| | 12/9/2016 | **0.0110** | <0.00100 | 0.00320 | <0.00150 | 190 |
| | 5/9/2017 | **0.0580** | <0.00100 | 0.00550 | <0.00150 | 180 |
| | 11/15/2017 | **0.0210** | <0.00100 | 0.00290 | <0.00150 | 180 |
| | 5/10/2018 | -- | -- | -- | -- | 98.0 |
| | 5/17/2018 | 0.00110 | <0.00100 | <0.00100 | <0.00150 | -- |
| | 11/12/2018 | 0.00110 | <0.00100 | <0.00100 | <0.00150 | 160 |
| | 5/14/2019 | 0.00150 | <0.00100 | <0.00100 | <0.00150 | 130 |
| | 11/12/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00200 | 100 |
| | 3/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 100 |
| | 9/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 100 |
| | 3/30/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 110 |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 130 |
| | 4/13/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 130 |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 150 |

**Table 3**

**Summary of Groundwater Analytical Results**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

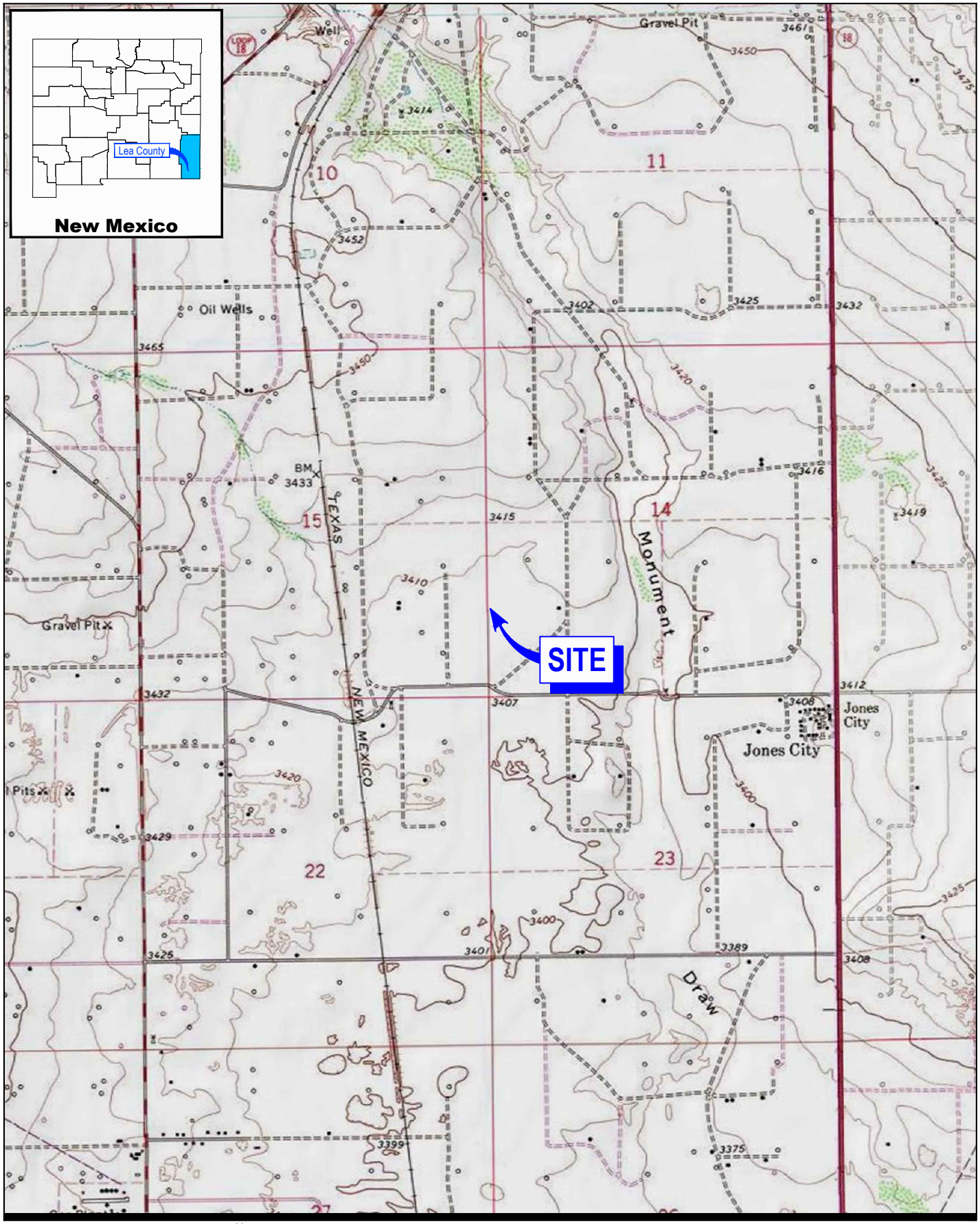
| Well ID | Sample Date | Benzene | Toluene | Ethylbenzene | Total Xylenes | Chloride |
|---|---|---|---|---|---|---|
| **NMWQCC Groundwater** | | **0.005** | **1.0** | **0.7** | **0.62** | **250** |
| MW-9 | 1/21/2015 | **0.0240** | <0.00100 | <0.00100 | 0.0151 | 53.9 |
| | 4/21/2015 | **0.0305** | <0.00100 | <0.00100 | 0.0340 | 53.4 |
| | 12/22/2015 | **0.0190** | <0.00100 | <0.00100 | 0.0180 | 57.0 |
| | 6/2/2016 | **0.0510** | <0.00100 | <0.00100 | 0.0250 | 43.0 |
| | 12/9/2016 | **0.0320** | <0.00100 | <0.00100 | 0.0140 | 43.0 |
| | 5/9/2017 | **0.0780** | <0.00100 | <0.00100 | 0.0400 | 42.0 |
| | 11/15/2017 | **0.0290** | <0.00100 | <0.00100 | 0.0160 | 35.0 |
| | 5/10/2018 | -- | -- | -- | -- | 33.0 |
| | 5/17/2018 | **0.0200** | <0.00100 | <0.00100 | 0.00170 | -- |
| | 11/12/2018 | **0.00760** | <0.00100 | <0.00100 | <0.00150 | 41.0 |
| | 5/14/2019 | **0.00850** | <0.00100 | <0.00100 | <0.00150 | 80.0 |
| | 11/12/2019 | 0.00250 | <0.00100 | <0.00100 | 0.0190 | 220 |
| | 11/12/2019 (DUP) | 0.00160 | <0.00100 | <0.00100 | 0.0110 | 220 |
| | 3/23/2020 | 0.00240 | <0.00100 | <0.00100 | 0.00520 | **280** |
| | 9/23/2020 | 0.00150 | <0.00100 | <0.00100 | <0.00150 | **350** |
| | 9/23/2020 (DUP) | 0.00140 | <0.00100 | <0.00100 | <0.00150 | **380** |
| | 3/30/2021 | <0.00100 | <0.00100 | <0.00100 | 0.00160 | **450** |
| | 3/30/2021 (DUP) | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **420** |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **510** |
| | 10/7/2021 (DUP) | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **620** |
| | 4/13/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **710** |
| | 4/13/2022 (DUP) | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **710** |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **620** |
| MW-10 | 12/21/2015 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **570** |
| | 6/2/2016 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **500** |
| | 12/9/2016 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **580** |
| | 5/9/2017 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **640** |
| | 11/15/2017 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **520** |
| | 5/10/2018 | -- | -- | -- | -- | **730** |
| | 5/10/2018 (DUP) | -- | -- | -- | -- | **750** |
| | 5/17/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | -- |
| | 11/12/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **770** |
| | 5/14/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **810** |
| | 5/14/2019 (DUP) | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **830** |
| | 11/12/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00200 | **930** |
| | 3/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **1,100** |
| | 9/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **1,300** |
| | 3/30/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **1,300** |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **1,600** |
| | 4/13/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **1,900** |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | **1,800** |

**Table 3**

**Summary of Groundwater Analytical Results**
**A-7 Bettis**
**Lea County, New Mexico**
**ET Gathering Processing LLC**
**NMOCD Nos. 1RP-9-5-2186 and 1RP-1540**

| Well ID | Sample Date | Benzene | Toluene | Ethylbenzene | Total Xylenes | Chloride |
|---|---|---|---|---|---|---|
| **NMWQCC Groundwater** | | **0.005** | **1.0** | **0.7** | **0.62** | **250** |
| MW-11 | 12/21/2015 | 0.00130 | <0.00100 | <0.00100 | <0.00150 | 55.0 |
| | 6/2/2016 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 46.0 |
| | 12/9/2016 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 44.0 |
| | 5/9/2017 | 0.00230 | <0.00100 | <0.00100 | <0.00150 | 56.0 |
| | 11/15/2017 | **0.0130** | <0.00100 | <0.00100 | 0.00180 | 35.0 |
| | 5/10/2018 | -- | -- | -- | -- | 44.0 |
| | 5/17/2018 | 0.00160 | <0.00100 | <0.00100 | <0.00150 | -- |
| | 11/12/2018 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 42.0 |
| | 5/14/2019 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 43.0 |
| | 11/12/2019 | 0.00100 | <0.00100 | <0.00100 | <0.00200 | 33.0 |
| | 3/23/2020 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 44.0 |
| | 9/23/2020 | 0.00140 | <0.00100 | <0.00100 | <0.00150 | 43.0 |
| | 3/30/2021 | 0.00150 | <0.00100 | <0.00100 | <0.00150 | 52.0 |
| | 10/7/2021 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 56.0 |
| | 4/13/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 62.0 |
| | 11/8/2022 | <0.00100 | <0.00100 | <0.00100 | <0.00150 | 60.0 |

Notes:
1) Analytical results are presented in milligrams per liter (mg/L)
2) NMWQCC = New Mexico Water Quality Control Commission
3) * = samples collected by Basin Environmental Services, LLC.
4) -- = not analyzed
5) < = Analyte was not detected at or above the laboratory reporting limit.
6) Shaded/bolded results exceed their respective NMWQCC groundwater quality standard.




0 1000 2000 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
A-7 BETTIS

Project No. **12603932**
Date **October 2023**

**SITE LOCATION MAP**

**FIGURE 1**

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\562\12603932\Digital_Design\ACAD\Figures\RPT001\12603932-GHD-00-00-RPT-EN-D101_DL-001.dwg

Data Source: USGS 7.5 Minute Quad "Eunice and Eunice NE, New Mexico"
Lat/Long: 32.47536° North, 103.14215° West


LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
A-7 BETTIS

SITE DETAILS MAP

Project No. **12603932**
Date **October 2023**

**FIGURE 2**

Filename: \\ghdnetghd\US\Albuquerque\Projects\56\12603932\Digital_Design\ACAD\Figures\RPT001\12603932-GHD-00-00-RPT-EN-D101_DL-001.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West


LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 0.1 FT)
- 3353.96 ELEVATION OF GROUNDWATER ELEVATION (FT)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. MW-2 WAS NOT USED IN CONTOURING.

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
A-7 BETTIS

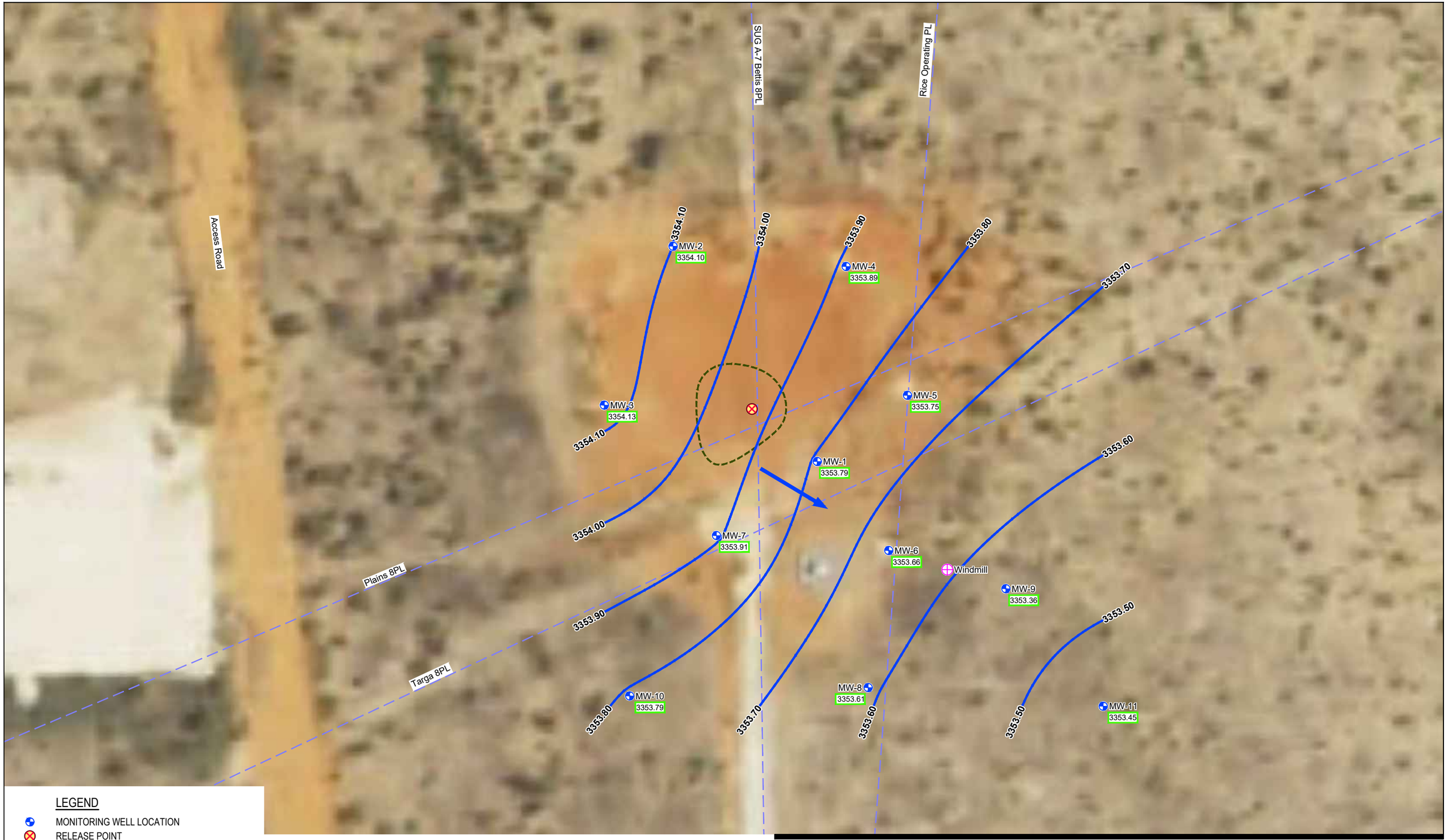
APRIL 2022 GROUNDWATER POTENTIOMETRIC SURFACE MAP

Project No. **12603932**
Date **October 2023**

**FIGURE 3**

Filename: \\ghdnetghd\US\Albuquerque\Projects\562\12603932\Digital_Design\ACAD\Figures\RPT001\12603932-GHD-00-00-RPT-EN-D101_DL-001.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West




LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 0.1 FT)
- 3353.79 ELEVATION OF GROUNDWATER ELEVATION (FT)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. MW-9 WAS NOT USED IN CONTOURING.

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
A-7 BETTIS

NOVEMBER 2022 GROUNDWATER POTENTIOMETRIC SURFACE MAP

Project No. **12603932**
Date **October 2023**

**FIGURE 4**

Filename: \\phdnefghd\US\Albuquerque\Projects\56\12603932\Digital_Design\ACAD\Figures\RPT001\12603932-GHD-00-00-RPT-EN-D101_DL-001.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West

Access Road

SUG A-7 Bettis 8PL

Rice Operating PL

Plains 8PL

Targa 8PL

Windmill

**MW-2**

| Date | Chloride |
|---|---|
| 04/13/22 | NS |
| 11/08/22 | 200 |

**MW-4**

| Date | Chloride |
|---|---|
| 04/13/22 | NS |
| 11/08/22 | 140 |

**MW-3**

| Date | Chloride |
|---|---|
| 04/13/22 | 200 |
| 11/08/22 | 280 |

**MW-5**

| Date | Chloride |
|---|---|
| 04/13/22 | NS |
| 11/08/22 | 110 |

**MW-1**

| Date | Chloride |
|---|---|
| 04/13/22 | 230 |
| 11/08/22 | 210 |

**MW-7**

| Date | Chloride |
|---|---|
| 04/13/22 | 280 |
| 11/08/22 | 370 |

**MW-6**

| Date | Chloride |
|---|---|
| 04/13/22 | 180 |
| 11/08/22 | 180 |

**MW-9**

| Date | Chloride |
|---|---|
| 04/13/22 | 710 |
| 11/08/22 | 620 |

**MW-10**

| Date | Chloride |
|---|---|
| 04/13/22 | 1,900 |
| 11/08/22 | 1,800 |

**MW-8**

| Date | Chloride |
|---|---|
| 04/13/22 | 130 |
| 11/08/22 | 150 |

**MW-11**

| Date | Chloride |
|---|---|
| 04/13/22 | 62 |
| 11/08/22 | 60 |

LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS

NOTES:

1. GROUNDWATER CONCENTRATIONS PRESENTED IN MILLIGRAMS PER LITER (mg/L).
2. YELLOW SHADED CELLS INDICATE EXCEEDANCE OF THE NMWQCC STANDARD.

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
A-7 BETTIS

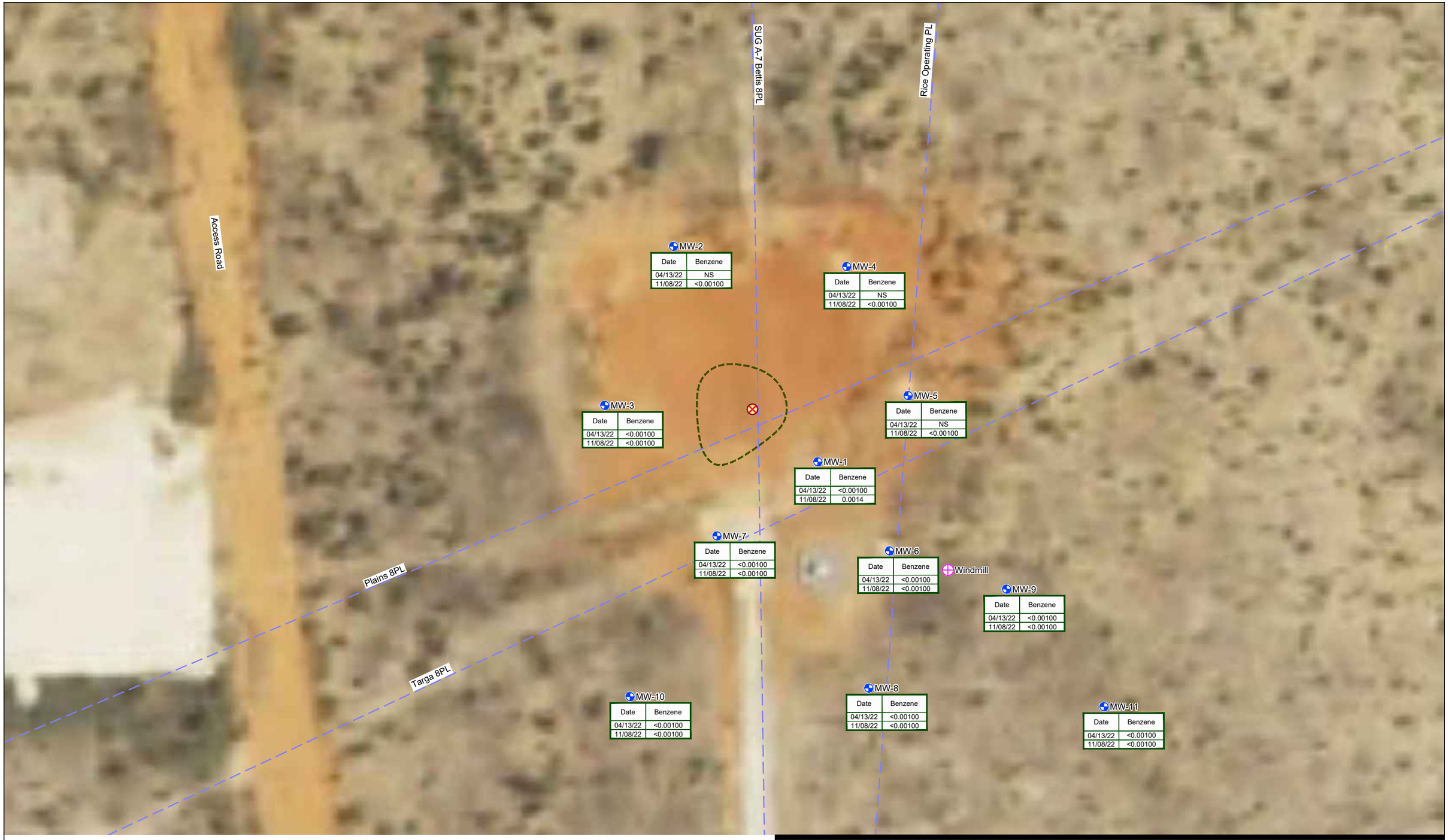
2022 GROUNDWATER
CHLORIDE CONCENTRATIONS MAP

Project No. **12603932**
Date **October 2023**

**FIGURE 5**

Filename: \\ghdnetfiles\US\Albuquerque\Projects\56\12603932\Digital Design\ACAD\Figures\RPT001\12603932-GHD-00-00-RPT-EN-D101_DL-001.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West




LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS

NOTES:

1. GROUNDWATER CONCENTRATIONS PRESENTED IN MILLIGRAMS PER LITER (mg/L).
2. YELLOW SHADED CELLS INDICATE EXCEEDANCE OF THE NMWQCC STANDARD.

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
A-7 BETTIS

2022 GROUNDWATER
BENZENE CONCENTRATIONS MAP

Project No. **12603932**
Date **October 2023**

**FIGURE 6**

Filename: \\ghdnetghd\US\Albuquerque\Projects\562\12603932\Digital_Design\ACAD\Figures\RPT001\12603932-GHD-00-00-RPT-EN-D101_DL-001.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West


LEGEND

- PROPOSED MONITORING WELL LOCATION
- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ET GATHERING & PROCESSING LLC
LEA COUNTY, NEW MEXICO
A-7 BETTIS

PROPOSED MONITORING WELL LOCATION MAP

Project No. **12603932**
Date **October 2023**

**FIGURE 7**

Filename: \\ghdnetghd\US\Albuquerque\Projects\56\12603932\Digital_Design\ACAD\Figures\RPT001\12603932-GHD-00-00-RPT-EN-D101_DL-001.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West

# Appendices

# Appendix A

## Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 25, 2022

Christine Mathews
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX:

RE: Bettis OrderNo.: 2204658

Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 10 sample(s) on 4/14/2022 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-MW
**Project:** Bettis
**Collection Date:** 4/13/2022 10:00:00 AM
**Lab ID:** 2204658-001 **Matrix:** AQUEOUS **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 230 | 50 | | mg/L | 100 | 4/21/2022 3:01:35 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 5:57:09 PM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/18/2022 5:57:09 PM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 5:57:09 PM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/18/2022 5:57:09 PM | R87320 |
| Surr: 4-Bromofluorobenzene | 102 | 70-130 | | %Rec | 1 | 4/18/2022 5:57:09 PM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-MW
**Project:** Bettis
**Collection Date:** 4/13/2022 10:30:00 AM
**Lab ID:** 2204658-002 **Matrix:** AQUEOUS **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 200 | 50 | | mg/L | 100 | 4/21/2022 3:26:17 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:07:40 PM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:07:40 PM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:07:40 PM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/18/2022 7:07:40 PM | R87320 |
| Surr: 4-Bromofluorobenzene | 96.9 | 70-130 | | %Rec | 1 | 4/18/2022 7:07:40 PM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-MW
**Project:** Bettis
**Collection Date:** 4/13/2022 11:00:00 AM
**Lab ID:** 2204658-003 **Matrix:** AQUEOUS **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 180 | 5.0 | | mg/L | 10 | 4/21/2022 3:38:37 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:31:00 PM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:31:00 PM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:31:00 PM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/18/2022 7:31:00 PM | R87320 |
| Surr: 4-Bromofluorobenzene | 100 | 70-130 | | %Rec | 1 | 4/18/2022 7:31:00 PM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-MW
**Project:** Bettis
**Collection Date:** 4/13/2022 12:00:00 PM
**Lab ID:** 2204658-004 **Matrix:** AQUEOUS **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 280 | 50 | * | mg/L | 100 | 4/21/2022 4:15:39 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:54:24 PM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:54:24 PM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 7:54:24 PM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/18/2022 7:54:24 PM | R87320 |
| Surr: 4-Bromofluorobenzene | 101 | 70-130 | | %Rec | 1 | 4/18/2022 7:54:24 PM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-MW
**Project:** Bettis
**Collection Date:** 4/13/2022 12:30:00 PM
**Lab ID:** 2204658-005 **Matrix:** AQUEOUS **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 130 | 5.0 | | mg/L | 10 | 4/21/2022 4:52:42 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 8:17:49 PM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/18/2022 8:17:49 PM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 8:17:49 PM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/18/2022 8:17:49 PM | R87320 |
| Surr: 4-Bromofluorobenzene | 102 | 70-130 | | %Rec | 1 | 4/18/2022 8:17:49 PM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-MW
**Project:** Bettis
**Collection Date:** 4/13/2022 1:00:00 PM
**Lab ID:** 2204658-006 **Matrix:** AQUEOUS **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 710 | 50 | * | mg/L | 100 | 4/21/2022 5:29:44 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 11:24:57 PM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/18/2022 11:24:57 PM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 11:24:57 PM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/18/2022 11:24:57 PM | R87320 |
| Surr: 4-Bromofluorobenzene | 106 | 70-130 | | %Rec | 1 | 4/18/2022 11:24:57 PM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-MW
**Project:** Bettis
**Collection Date:** 4/13/2022 2:00:00 PM
**Lab ID:** 2204658-007 **Matrix:** AQUEOUS **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 1900 | 50 | * | mg/L | 100 | 4/21/2022 5:54:26 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 11:48:14 PM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/18/2022 11:48:14 PM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/18/2022 11:48:14 PM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/18/2022 11:48:14 PM | R87320 |
| Surr: 4-Bromofluorobenzene | 100 | 70-130 | | %Rec | 1 | 4/18/2022 11:48:14 PM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-MW
**Project:** Bettis
**Collection Date:** 4/13/2022 3:00:00 PM
**Lab ID:** 2204658-008 **Matrix:** AQUEOUS **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 62 | 5.0 | | mg/L | 10 | 4/21/2022 6:06:46 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | 2.1 | 1.0 | | µg/L | 1 | 4/19/2022 12:11:39 AM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/19/2022 12:11:39 AM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/19/2022 12:11:39 AM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/19/2022 12:11:39 AM | R87320 |
| Surr: 4-Bromofluorobenzene | 102 | 70-130 | | %Rec | 1 | 4/19/2022 12:11:39 AM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD
**Client Sample ID:** GW-12574706-041322-CN-DUP
**Project:** Bettis
**Collection Date:** 4/13/2022
**Lab ID:** 2204658-009
**Matrix:** AQUEOUS
**Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 710 | 50 | * | mg/L | 100 | 4/21/2022 6:43:47 PM | R87438 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/19/2022 12:35:12 AM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/19/2022 12:35:12 AM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/19/2022 12:35:12 AM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/19/2022 12:35:12 AM | R87320 |
| Surr: 4-Bromofluorobenzene | 106 | 70-130 | | %Rec | 1 | 4/19/2022 12:35:12 AM | R87320 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2204658**
Date Reported: **4/25/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** Trip Blank
**Project:** Bettis **Collection Date:**
**Lab ID:** 2204658-010 **Matrix:** TRIP BLANK **Received Date:** 4/14/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 4/19/2022 12:58:40 AM | R87320 |
| Toluene | ND | 1.0 | | µg/L | 1 | 4/19/2022 12:58:40 AM | R87320 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 4/19/2022 12:58:40 AM | R87320 |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 4/19/2022 12:58:40 AM | R87320 |
| Surr: 4-Bromofluorobenzene | 98.5 | 70-130 | | %Rec | 1 | 4/19/2022 12:58:40 AM | R87320 |

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

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2204658**

***25-Apr-22***

**Client:** GHD

**Project:** Bettis

| Sample ID: **MB** | SampType: **mblk** | TestCode: **EPA Method 300.0: Anions** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **R87438** | RunNo: **87438** |
| Prep Date: | Analysis Date: **4/21/2022** | SeqNo: **3093499** Units: **mg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | 0.50 | | | | | | | | |

| Sample ID: **LCS** | SampType: **lcs** | TestCode: **EPA Method 300.0: Anions** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **R87438** | RunNo: **87438** |
| Prep Date: | Analysis Date: **4/21/2022** | SeqNo: **3093500** Units: **mg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.5 | 0.50 | 5.000 | 0 | 90.5 | 90 | 110 | | | |

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2204658**

***25-Apr-22***

**Client:** GHD

**Project:** Bettis

| Sample ID: **mb-5** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **R87320** | RunNo: **87320** |
| Prep Date: | Analysis Date: **4/18/2022** | SeqNo: **3088026** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 2.0 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 20 | | 20.00 | | 100 | 70 | 130 | | | |

| Sample ID: **100ng btex lcs** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **R87320** | RunNo: **87320** |
| Prep Date: | Analysis Date: **4/18/2022** | SeqNo: **3088027** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 17 | 1.0 | 20.00 | 0 | 85.3 | 80 | 120 | | | |
| Toluene | 18 | 1.0 | 20.00 | 0 | 89.2 | 80 | 120 | | | |
| Ethylbenzene | 18 | 1.0 | 20.00 | 0 | 91.1 | 80 | 120 | | | |
| Xylenes, Total | 55 | 2.0 | 60.00 | 0 | 91.1 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 21 | | 20.00 | | 103 | 70 | 130 | | | |

| Sample ID: **2204658-001ams** | SampType: **MS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **GW-12574706-04132** | Batch ID: **R87320** | RunNo: **87320** |
| Prep Date: | Analysis Date: **4/18/2022** | SeqNo: **3088029** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 18 | 1.0 | 20.00 | 0.8900 | 86.2 | 80 | 120 | | | |
| Toluene | 18 | 1.0 | 20.00 | 0 | 90.8 | 80 | 120 | | | |
| Ethylbenzene | 18 | 1.0 | 20.00 | 0 | 91.5 | 80 | 120 | | | |
| Xylenes, Total | 55 | 2.0 | 60.00 | 0 | 92.0 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 21 | | 20.00 | | 103 | 70 | 130 | | | |

| Sample ID: **2204658-001amsd** | SampType: **MSD** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **GW-12574706-04132** | Batch ID: **R87320** | RunNo: **87320** |
| Prep Date: | Analysis Date: **4/18/2022** | SeqNo: **3088030** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 18 | 1.0 | 20.00 | 0.8900 | 85.2 | 80 | 120 | 1.09 | 20 | |
| Toluene | 18 | 1.0 | 20.00 | 0 | 90.3 | 80 | 120 | 0.641 | 20 | |
| Ethylbenzene | 19 | 1.0 | 20.00 | 0 | 92.6 | 80 | 120 | 1.26 | 20 | |
| Xylenes, Total | 56 | 2.0 | 60.00 | 0 | 93.3 | 80 | 120 | 1.39 | 20 | |
| Surr: 4-Bromofluorobenzene | 21 | | 20.00 | | 105 | 70 | 130 | 0 | 0 | |

**Qualifiers:**

| | |
|---|---|
| * | Value exceeds Maximum Contaminant Level. |
| D | Sample Diluted Due to Matrix |
| H | Holding times for preparation or analysis exceeded |
| ND | Not Detected at the Reporting Limit |
| PQL | Practical Quanitative Limit |
| S | % Recovery outside of 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

*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: GHD | Work Order Number: 2204658 | RcptNo: 1

Received By: Sean Livingston 4/14/2022 8:00:00 AM S Livingston

Completed By: Sean Livingston 4/14/2022 10:46:16 AM S Livingston

Reviewed By: 4-14-22

## 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° 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 ☐ | |

04/14/22

# of preserved bottles checked for pH: 10 (<2 or >12 unless noted)

Adjusted?

Checked by:

## Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions:

16. Additional remarks:

17. **Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 1.0 | Good | | | | |
| 2 | 0.8 | Good | | | | |

# Chain-of-Custody Record

Client: GHD

Mailing Address: on File

Phone #: 505 269 0088

email or Fax#: Christine.Mathews@ghd.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Bettis

Project #: 125744706

Project Manager: Christine Mathews.

Sampler: CN

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 1.0 +0=1.0 (°C) 0.8 +0=0.8°C


**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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


**Analysis Request**

| Date | Time | Matrix | Sample Name | Container Type and # | Preservative Type | HEAL No. 2204658 | BTEX / MTBE / TMB's (8021) | TPH:8015D(GRO / DRO / MRO) | 8081 Pesticides/8082 PCB's | EDB (Method 504.1) | PAHs by 8310 or 8270SIMS | RCRA 8 Metals | Cl, F, Br, $NO_3$, $NO_2$, $PO_4$, $SO_4$ | 8260 (VOA) | 8270 (Semi-VOA) | Total Coliform (Present/Absent) | BTEX | Chloride | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-13-22 | 1000 | W | GW-125744706-041322-CN-MW-1 | various | HCl | 001 | | | | | | | | | | | | | | | | |
| | 1030 | | GW-125744706-041322-CN-MW-3 | | | 002 | | | | | | | | | | | | | | | | |
| | 1100 | | GW-125744706-041322-CN-MW-6 | | | 003 | | | | | | | | | | | | | | | | |
| | 1200 | | GW-125744706-041322-CN-MW-7 | | | 004 | | | | | | | | | | | | | | | | |
| | 1230 | | GW-125744706-041322-CN-MW-8 | | | 005 | | | | | | | | | | | | | | | | |
| | 1300 | | GW-125744706-041322-CN-MW-9 | | | 006 | | | | | | | | | | | | | | | | |
| | 1400 | | GW-125744706-041322-CN-MW-10 | | | 007 | | | | | | | | | | | | | | | | |
| | 1500 | | GW-125744706-041322-CN-MW-11 | | | 008 | | | | | | | | | | | | | | | | |
| ↓ | — | ↓ | GW-125744706-041322-CN-DUP | ↓ | ↓ | 009 | | | | | | | | | | | ↓ | ↓ | | | | |
| — | — | — | Trip Blank | | | 010 | | | | | | | | | | | | | | | | |
| | | | IO 04/14/2022 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

| Date: | Time: | Relinquished by: | Received by: | Via: | Date | Time |
|---|---|---|---|---|---|---|
| 4-13-22 | 1600 | | | | 4/13/22 | 1600 |
| 4/13/22 | 1900 | | SEE | COURIER | 4/14/22 | 8:00 |

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 22, 2022

Christine Mathews
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX:

RE: A7 Bettis OrderNo.: 2211743

Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 13 sample(s) on 11/12/2022 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-1
**Project:** A7 Bettis **Collection Date:** 11/8/2022 4:15:00 PM
**Lab ID:** 2211743-001 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 210 | 50 | | mg/L | 100 | 11/18/2022 3:25:21 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | 1.4 | 1.0 | | µg/L | 1 | 11/14/2022 10:58:00 PM | R92552 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/14/2022 10:58:00 PM | R92552 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/14/2022 10:58:00 PM | R92552 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/14/2022 10:58:00 PM | R92552 |
| Surr: 1,2-Dichloroethane-d4 | 94.2 | 70-130 | | %Rec | 1 | 11/14/2022 10:58:00 PM | R92552 |
| Surr: 4-Bromofluorobenzene | 94.5 | 70-130 | | %Rec | 1 | 11/14/2022 10:58:00 PM | R92552 |
| Surr: Dibromofluoromethane | 97.7 | 70-130 | | %Rec | 1 | 11/14/2022 10:58:00 PM | R92552 |
| Surr: Toluene-d8 | 88.9 | 70-130 | | %Rec | 1 | 11/14/2022 10:58:00 PM | R92552 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-2
**Project:** A7 Bettis **Collection Date:** 11/8/2022 10:30:00 AM
**Lab ID:** 2211743-002 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 200 | 50 | | mg/L | 100 | 11/18/2022 4:42:31 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/14/2022 11:21:00 PM | R92552 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/14/2022 11:21:00 PM | R92552 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/14/2022 11:21:00 PM | R92552 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/14/2022 11:21:00 PM | R92552 |
| Surr: 1,2-Dichloroethane-d4 | 93.0 | 70-130 | | %Rec | 1 | 11/14/2022 11:21:00 PM | R92552 |
| Surr: 4-Bromofluorobenzene | 94.6 | 70-130 | | %Rec | 1 | 11/14/2022 11:21:00 PM | R92552 |
| Surr: Dibromofluoromethane | 98.0 | 70-130 | | %Rec | 1 | 11/14/2022 11:21:00 PM | R92552 |
| Surr: Toluene-d8 | 87.7 | 70-130 | | %Rec | 1 | 11/14/2022 11:21:00 PM | R92552 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-3
**Project:** A7 Bettis **Collection Date:** 11/8/2022 4:35:00 PM
**Lab ID:** 2211743-003 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 280 | 50 | * | mg/L | 100 | 11/18/2022 5:08:14 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | 1.1 | 1.0 | | µg/L | 1 | 11/14/2022 11:44:00 PM | R92552 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/14/2022 11:44:00 PM | R92552 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/14/2022 11:44:00 PM | R92552 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/14/2022 11:44:00 PM | R92552 |
| Surr: 1,2-Dichloroethane-d4 | 92.9 | 70-130 | | %Rec | 1 | 11/14/2022 11:44:00 PM | R92552 |
| Surr: 4-Bromofluorobenzene | 95.5 | 70-130 | | %Rec | 1 | 11/14/2022 11:44:00 PM | R92552 |
| Surr: Dibromofluoromethane | 98.2 | 70-130 | | %Rec | 1 | 11/14/2022 11:44:00 PM | R92552 |
| Surr: Toluene-d8 | 88.7 | 70-130 | | %Rec | 1 | 11/14/2022 11:44:00 PM | R92552 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-4
**Project:** A7 Bettis **Collection Date:** 11/8/2022 1:40:00 PM
**Lab ID:** 2211743-004 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 140 | 5.0 | | mg/L | 10 | 11/18/2022 5:21:07 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 12:07:00 AM | R92552 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 12:07:00 AM | R92552 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 12:07:00 AM | R92552 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 12:07:00 AM | R92552 |
| Surr: 1,2-Dichloroethane-d4 | 95.4 | 70-130 | | %Rec | 1 | 11/15/2022 12:07:00 AM | R92552 |
| Surr: 4-Bromofluorobenzene | 92.3 | 70-130 | | %Rec | 1 | 11/15/2022 12:07:00 AM | R92552 |
| Surr: Dibromofluoromethane | 101 | 70-130 | | %Rec | 1 | 11/15/2022 12:07:00 AM | R92552 |
| Surr: Toluene-d8 | 89.0 | 70-130 | | %Rec | 1 | 11/15/2022 12:07:00 AM | R92552 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-5
**Project:** A7 Bettis **Collection Date:** 11/8/2022 12:55:00 PM
**Lab ID:** 2211743-005 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 110 | 5.0 | | mg/L | 10 | 11/18/2022 5:46:50 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 2:19:00 PM | SL92622 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 2:19:00 PM | SL92622 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 2:19:00 PM | SL92622 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 2:19:00 PM | SL92622 |
| Surr: 1,2-Dichloroethane-d4 | 91.9 | 70-130 | | %Rec | 1 | 11/15/2022 2:19:00 PM | SL92622 |
| Surr: 4-Bromofluorobenzene | 87.1 | 70-130 | | %Rec | 1 | 11/15/2022 2:19:00 PM | SL92622 |
| Surr: Dibromofluoromethane | 92.6 | 70-130 | | %Rec | 1 | 11/15/2022 2:19:00 PM | SL92622 |
| Surr: Toluene-d8 | 86.2 | 70-130 | | %Rec | 1 | 11/15/2022 2:19:00 PM | SL92622 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-6
**Project:** A7 Bettis **Collection Date:** 11/8/2022 4:00:00 PM
**Lab ID:** 2211743-006 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 180 | 50 | | mg/L | 100 | 11/18/2022 6:51:16 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 2:42:00 PM | SL92622 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 2:42:00 PM | SL92622 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 2:42:00 PM | SL92622 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 2:42:00 PM | SL92622 |
| Surr: 1,2-Dichloroethane-d4 | 90.3 | 70-130 | | %Rec | 1 | 11/15/2022 2:42:00 PM | SL92622 |
| Surr: 4-Bromofluorobenzene | 93.4 | 70-130 | | %Rec | 1 | 11/15/2022 2:42:00 PM | SL92622 |
| Surr: Dibromofluoromethane | 92.7 | 70-130 | | %Rec | 1 | 11/15/2022 2:42:00 PM | SL92622 |
| Surr: Toluene-d8 | 89.1 | 70-130 | | %Rec | 1 | 11/15/2022 2:42:00 PM | SL92622 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-7
**Project:** A7 Bettis **Collection Date:** 11/8/2022 12:00:00 PM
**Lab ID:** 2211743-007 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 370 | 50 | * | mg/L | 100 | 11/18/2022 7:17:02 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:05:00 PM | SL92622 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:05:00 PM | SL92622 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:05:00 PM | SL92622 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 3:05:00 PM | SL92622 |
| Surr: 1,2-Dichloroethane-d4 | 87.8 | 70-130 | | %Rec | 1 | 11/15/2022 3:05:00 PM | SL92622 |
| Surr: 4-Bromofluorobenzene | 94.2 | 70-130 | | %Rec | 1 | 11/15/2022 3:05:00 PM | SL92622 |
| Surr: Dibromofluoromethane | 90.2 | 70-130 | | %Rec | 1 | 11/15/2022 3:05:00 PM | SL92622 |
| Surr: Toluene-d8 | 87.1 | 70-130 | | %Rec | 1 | 11/15/2022 3:05:00 PM | SL92622 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-8
**Project:** A7 Bettis **Collection Date:** 11/8/2022 2:15:00 PM
**Lab ID:** 2211743-008 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 150 | 5.0 | | mg/L | 10 | 11/18/2022 7:29:53 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:28:00 PM | SL92622 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:28:00 PM | SL92622 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:28:00 PM | SL92622 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 3:28:00 PM | SL92622 |
| Surr: 1,2-Dichloroethane-d4 | 91.3 | 70-130 | | %Rec | 1 | 11/15/2022 3:28:00 PM | SL92622 |
| Surr: 4-Bromofluorobenzene | 93.3 | 70-130 | | %Rec | 1 | 11/15/2022 3:28:00 PM | SL92622 |
| Surr: Dibromofluoromethane | 94.1 | 70-130 | | %Rec | 1 | 11/15/2022 3:28:00 PM | SL92622 |
| Surr: Toluene-d8 | 87.0 | 70-130 | | %Rec | 1 | 11/15/2022 3:28:00 PM | SL92622 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-9
**Project:** A7 Bettis **Collection Date:** 11/8/2022 3:15:00 PM
**Lab ID:** 2211743-009 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 620 | 50 | * | mg/L | 100 | 11/18/2022 8:08:28 PM | R92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:51:00 PM | SL92622 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:51:00 PM | SL92622 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 3:51:00 PM | SL92622 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 3:51:00 PM | SL92622 |
| Surr: 1,2-Dichloroethane-d4 | 91.1 | 70-130 | | %Rec | 1 | 11/15/2022 3:51:00 PM | SL92622 |
| Surr: 4-Bromofluorobenzene | 90.8 | 70-130 | | %Rec | 1 | 11/15/2022 3:51:00 PM | SL92622 |
| Surr: Dibromofluoromethane | 91.1 | 70-130 | | %Rec | 1 | 11/15/2022 3:51:00 PM | SL92622 |
| Surr: Toluene-d8 | 91.0 | 70-130 | | %Rec | 1 | 11/15/2022 3:51:00 PM | SL92622 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-10
**Project:** A7 Bettis **Collection Date:** 11/8/2022 4:55:00 PM
**Lab ID:** 2211743-010 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 1800 | 50 | * | mg/L | 100 | 11/18/2022 10:42:49 PM | A92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **CCM** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 4:14:00 PM | SL92622 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 4:14:00 PM | SL92622 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 4:14:00 PM | SL92622 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 4:14:00 PM | SL92622 |
| Surr: 1,2-Dichloroethane-d4 | 90.1 | 70-130 | | %Rec | 1 | 11/15/2022 4:14:00 PM | SL92622 |
| Surr: 4-Bromofluorobenzene | 93.8 | 70-130 | | %Rec | 1 | 11/15/2022 4:14:00 PM | SL92622 |
| Surr: Dibromofluoromethane | 92.4 | 70-130 | | %Rec | 1 | 11/15/2022 4:14:00 PM | SL92622 |
| Surr: Toluene-d8 | 88.0 | 70-130 | | %Rec | 1 | 11/15/2022 4:14:00 PM | SL92622 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** MW-11
**Project:** A7 Bettis **Collection Date:** 11/8/2022 2:55:00 PM
**Lab ID:** 2211743-011 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 60 | 5.0 | | mg/L | 10 | 11/18/2022 10:55:41 PM | A92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **JR** | |
| Benzene | 2.0 | 1.0 | | µg/L | 1 | 11/15/2022 8:44:32 PM | SL92599 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 8:44:32 PM | SL92599 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 8:44:32 PM | SL92599 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 8:44:32 PM | SL92599 |
| Surr: 1,2-Dichloroethane-d4 | 108 | 70-130 | | %Rec | 1 | 11/15/2022 8:44:32 PM | SL92599 |
| Surr: 4-Bromofluorobenzene | 91.0 | 70-130 | | %Rec | 1 | 11/15/2022 8:44:32 PM | SL92599 |
| Surr: Dibromofluoromethane | 103 | 70-130 | | %Rec | 1 | 11/15/2022 8:44:32 PM | SL92599 |
| Surr: Toluene-d8 | 93.7 | 70-130 | | %Rec | 1 | 11/15/2022 8:44:32 PM | SL92599 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** Dup-01
**Project:** A7 Bettis **Collection Date:** 11/8/2022
**Lab ID:** 2211743-012 **Matrix:** AQUEOUS **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JMT** | |
| Chloride | 1800 | 50 | * | mg/L | 100 | 11/19/2022 | A92723 |
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **JR** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 9:12:55 PM | SL92599 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/15/2022 9:12:55 PM | SL92599 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/15/2022 9:12:55 PM | SL92599 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/15/2022 9:12:55 PM | SL92599 |
| Surr: 1,2-Dichloroethane-d4 | 112 | 70-130 | | %Rec | 1 | 11/15/2022 9:12:55 PM | SL92599 |
| Surr: 4-Bromofluorobenzene | 100 | 70-130 | | %Rec | 1 | 11/15/2022 9:12:55 PM | SL92599 |
| Surr: Dibromofluoromethane | 105 | 70-130 | | %Rec | 1 | 11/15/2022 9:12:55 PM | SL92599 |
| Surr: Toluene-d8 | 93.8 | 70-130 | | %Rec | 1 | 11/15/2022 9:12:55 PM | SL92599 |

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

**Qualifiers:**

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

**Analytical Report**
Lab Order **2211743**
Date Reported: **11/22/2022**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD **Client Sample ID:** Trip Blank
**Project:** A7 Bettis **Collection Date:**
**Lab ID:** 2211743-013 **Matrix:** TRIP BLANK **Received Date:** 11/12/2022 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8260: VOLATILES SHORT LIST** | | | | | | Analyst: **JR** | |
| Benzene | ND | 1.0 | | µg/L | 1 | 11/16/2022 12:03:34 AM | SL92599 |
| Toluene | ND | 1.0 | | µg/L | 1 | 11/16/2022 12:03:34 AM | SL92599 |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 11/16/2022 12:03:34 AM | SL92599 |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 11/16/2022 12:03:34 AM | SL92599 |
| Surr: 1,2-Dichloroethane-d4 | 111 | 70-130 | | %Rec | 1 | 11/16/2022 12:03:34 AM | SL92599 |
| Surr: 4-Bromofluorobenzene | 97.7 | 70-130 | | %Rec | 1 | 11/16/2022 12:03:34 AM | SL92599 |
| Surr: Dibromofluoromethane | 106 | 70-130 | | %Rec | 1 | 11/16/2022 12:03:34 AM | SL92599 |
| Surr: Toluene-d8 | 95.4 | 70-130 | | %Rec | 1 | 11/16/2022 12:03:34 AM | SL92599 |

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

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2211743**

***22-Nov-22***

**Client:** GHD

**Project:** A7 Bettis

| Sample ID: **MB** | SampType: **mblk** | TestCode: **EPA Method 300.0: Anions** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **PBW** | Batch ID: **R92723** | RunNo: **92723** | | | | | | | |
| Prep Date: | Analysis Date: **11/18/2022** | SeqNo: **3336909** | Units: **mg/L** | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 0.50 | | | | | | | | |

| Sample ID: **LCS** | SampType: **lcs** | TestCode: **EPA Method 300.0: Anions** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSW** | Batch ID: **R92723** | RunNo: **92723** | | | | | | | |
| Prep Date: | Analysis Date: **11/18/2022** | SeqNo: **3336910** | Units: **mg/L** | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 4.8 | 0.50 | 5.000 | 0 | 96.1 | 90 | 110 | | | |

| Sample ID: **MB** | SampType: **mblk** | TestCode: **EPA Method 300.0: Anions** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **PBW** | Batch ID: **A92723** | RunNo: **92723** | | | | | | | |
| Prep Date: | Analysis Date: **11/18/2022** | SeqNo: **3336978** | Units: **mg/L** | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 0.50 | | | | | | | | |

| Sample ID: **LCS** | SampType: **lcs** | TestCode: **EPA Method 300.0: Anions** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSW** | Batch ID: **A92723** | RunNo: **92723** | | | | | | | |
| Prep Date: | Analysis Date: **11/18/2022** | SeqNo: **3336979** | Units: **mg/L** | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 4.7 | 0.50 | 5.000 | 0 | 94.0 | 90 | 110 | | | |

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2211743**

***22-Nov-22***

**Client:** GHD

**Project:** A7 Bettis

| Sample ID: **100ng lcs** | SampType: **LCS** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **R92552** | RunNo: **92552** |
| Prep Date: | Analysis Date: **11/14/2022** | SeqNo: **3328886** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 21 | 1.0 | 20.00 | 0 | 105 | 70 | 130 | | | |
| Toluene | 21 | 1.0 | 20.00 | 0 | 104 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.1 | | 10.00 | | 90.9 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.6 | | 10.00 | | 96.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.3 | | 10.00 | | 93.3 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.0 | | 10.00 | | 89.5 | 70 | 130 | | | |

| Sample ID: **mb** | SampType: **MBLK** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **R92552** | RunNo: **92552** |
| Prep Date: | Analysis Date: **11/14/2022** | SeqNo: **3328887** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.4 | | 10.00 | | 94.4 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.2 | | 10.00 | | 92.5 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.5 | | 10.00 | | 94.7 | 70 | 130 | | | |
| Surr: Toluene-d8 | 8.8 | | 10.00 | | 88.3 | 70 | 130 | | | |

| Sample ID: **100ng lcs** | SampType: **LCS** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **SL92599** | RunNo: **92599** |
| Prep Date: | Analysis Date: **11/15/2022** | SeqNo: **3329961** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 21 | 1.0 | 20.00 | 0 | 104 | 70 | 130 | | | |
| Toluene | 18 | 1.0 | 20.00 | 0 | 90.6 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.1 | | 10.00 | | 91.1 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.6 | | 10.00 | | 96.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 104 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.4 | | 10.00 | | 94.2 | 70 | 130 | | | |

| Sample ID: **mb** | SampType: **MBLK** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **SL92599** | RunNo: **92599** |
| Prep Date: | Analysis Date: **11/15/2022** | SeqNo: **3329969** Units: **µg/L** |

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

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2211743**

***22-Nov-22***

**Client:** GHD

**Project:** A7 Bettis

| Sample ID: **mb** | SampType: **MBLK** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **SL92599** | RunNo: **92599** |
| Prep Date: | Analysis Date: **11/15/2022** | SeqNo: **3329969** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 108 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 10 | | 10.00 | | 100 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 11 | | 10.00 | | 108 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 94.9 | 70 | 130 | | | |

| Sample ID: **100ng lcs2** | SampType: **LCS** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **SL92599** | RunNo: **92599** |
| Prep Date: | Analysis Date: **11/15/2022** | SeqNo: **3329983** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 20 | 1.0 | 20.00 | 0 | 100 | 70 | 130 | | | |
| Toluene | 18 | 1.0 | 20.00 | 0 | 87.6 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 8.7 | | 10.00 | | 87.4 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.3 | | 10.00 | | 93.3 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 104 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.1 | | 10.00 | | 91.4 | 70 | 130 | | | |

| Sample ID: **mb2** | SampType: **MBLK** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **SL92599** | RunNo: **92599** |
| Prep Date: | Analysis Date: **11/15/2022** | SeqNo: **3329985** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 109 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.6 | | 10.00 | | 95.5 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 11 | | 10.00 | | 107 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.6 | | 10.00 | | 95.6 | 70 | 130 | | | |

| Sample ID: **100ng lcs4** | SampType: **LCS** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **SL92622** | RunNo: **92622** |
| Prep Date: | Analysis Date: **11/15/2022** | SeqNo: **3331454** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 20 | 1.0 | 20.00 | 0 | 101 | 70 | 130 | | | |
| Toluene | 20 | 1.0 | 20.00 | 0 | 99.6 | 70 | 130 | | | |

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2211743**

***22-Nov-22***

**Client:** GHD

**Project:** A7 Bettis

| Sample ID: **100ng lcs4** | SampType: **LCS** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **SL92622** | RunNo: **92622** |
| Prep Date: | Analysis Date: **11/15/2022** | SeqNo: **3331454** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Surr: 1,2-Dichloroethane-d4 | 8.5 | | 10.00 | | 84.9 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.3 | | 10.00 | | 93.5 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 8.8 | | 10.00 | | 88.3 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.3 | | 10.00 | | 93.1 | 70 | 130 | | | |

| Sample ID: **mb** | SampType: **MBLK** | TestCode: **EPA Method 8260: Volatiles Short List** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **SL92622** | RunNo: **92622** |
| Prep Date: | Analysis Date: **11/15/2022** | SeqNo: **3331470** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.1 | | 10.00 | | 91.3 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.5 | | 10.00 | | 94.7 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.2 | | 10.00 | | 92.1 | 70 | 130 | | | |
| Surr: Toluene-d8 | 8.8 | | 10.00 | | 88.3 | 70 | 130 | | | |

**Qualifiers:**

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

# Sample Log-In Check List

Client Name: GHD | Work Order Number: **2211743** | RcptNo: 1

Received By: **Kasandra Jimena Garcia** 11/12/2022 8:00:00 AM

Completed By: **Kasandra Jimena Garcia** 11/12/2022 8:33:32 AM

Reviewed By: 11/14/22

## 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° 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: JN 11/14/22

## 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 °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 0.8 | Good | Yes | | | |

# Chain-of-Custody Record

Client: GHD

Mailing Address: 6121 Indian School Road NE, STE 200, Albuquerque, NM 87110

Phone #: 505-269-0088

email or Fax#: Christine.Mathews@ghd.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: AZ-Betts

Project #: 12574706

Project Manager: Christine.Mathews@ghd.com
Christine Mathews

Sampler: Kris Moore, Simon Kozik

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.8 - 0 = 0.8 (°C)

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

| Date | Time | Matrix | Sample Name | Container Type and # | Preservative Type | HEAL No. | 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) BTEX only | 8270 (Semi-VOA) | Total Coliform (Present/Absent) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Analysis Request | | | | | | | | | | |
| 11-8-22 | 1615 | ground water | MW-1 | glass voa - 3 round plastic - 1 | VOA-HCl Plastic - none | 001 | | | | | | | 1 | 3 | | |
| | 1030 | | MW-2 | | | 002 | | | | | | | | | | |
| | 1635 | | MW-3 | | | 003 | | | | | | | | | | |
| | 1340 | | MW-4 | | | 004 | | | | | | | | | | |
| | 1255 | | MW-5 | | | 005 | | | | | | | | | | |
| | 1600 | | MW-6 | | | 006 | | | | | | | | | | |
| | 1700 | | MW-7 | | | 007 | | | | | | | | | | |
| | 1415 | | MW-8 | | | 008 | | | | | | | | | | |
| | 1515 | | MW-9 | | | 009 | | | | | | | | | | |
| | 16:55 | | MW-10 | | | 010 | | | | | | | | | | |
| | 1455 | | MW-11 | | | 011 | | | | | | | | | | |
| ↓ | N/A | ↓ | DUP-01 | ↓ | ↓ | 012 | | | | | | | ↓ | ↓ | | |

| Date | Time | Relinquished by: | Received by: | Via: | Date | Time |
|---|---|---|---|---|---|---|
| 11/10/2022 | 7:47 | | | | 11/11/22 | 1000 |
| 11/11/22 | 1900 | | | courier | 11-12-22 | 8:00 |

Remarks: Trip Blank - 013 per sample bottle

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 279627

## CONDITIONS

| | |
|---|---|
| Operator:<br>REGENCY FIELD SERVICES LLC<br>8111 Westchester Drive<br>Dallas, TX 75225 | OGRID:<br>298751 |
| | Action Number:<br>279627 |
| | Action Type:<br>[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| michael.buchanan | Review of the 2022 Annual Groundwater Monitoring Report for A-7 Bettis: Content Satisfactory 1. Continue to conduct semi-annual groundwater monitoring in MW-1, MW-3, MW-6, MW-7, MW-9 and MW-10 2. Conduct annual groundwater monitoring for chloride in MW-2, MW4, MW-5, MW-8 and MW-11 3. BTEX may be suspended from sampling analysis due to eight (8) consecutive results below the allowable concentrations. 4. Install a monitoring well upgradient of MW-10 to demonstrate chloride impact. 5. Submit the next annual groundwater monitoring report by April 1, 2024, and include results from new monitoring well if installation has been complete. | 2/12/2024 |