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## **2025 Annual Water Quality Report Coal Combustion Residue Monofill**

*Grain Processing Corporation  
Muscatine, Iowa*

Final  
September 2025

**Deliverable:** 2025 Annual Water Quality Report  
**Project:** Coal Combustion Residue Monofill  
**Client:** Grain Processing Corporation  
**Location:** Muscatine, Iowa  
**Permit No.:** #58-SDP-03-92C

**Submittal:** Final  
**Date:** September 2025

**Prepared by:** Stanley Consultants

**CERTIFICATION**

**2025 ANNUAL WATER QUALITY REPORT**

**GPC LANDFILL  
Permit No. 58-SDP-03-92C**

**GRAIN PROCESSING CORPORATION  
MUSCATINE, IOWA**

**September 2025**

I hereby certify that this report was prepared by me or under my direct personal supervision and that I am duly registered under the laws of the State of Iowa.

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Expiration Date

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# Table of Contents

|                                                                            |            |
|----------------------------------------------------------------------------|------------|
| <b>EXECUTIVE SUMMARY .....</b>                                             | <b>ii</b>  |
| <b>GLOSSARY OF TERMS .....</b>                                             | <b>iii</b> |
| <b>SECTION 1 INTRODUCTION.....</b>                                         | <b>1-1</b> |
| 1.1 Background.....                                                        | 1-1        |
| 1.2 Hydrologic Monitoring System Plan .....                                | 1-1        |
| 1.3 Geologic Setting.....                                                  | 1-2        |
| <b>SECTION 2 MONITORING WELL MAINTENANCE AND PERFORMANCE SUMMARY .....</b> | <b>2-1</b> |
| <b>SECTION 3 ANNUAL MONITORING RESULTS.....</b>                            | <b>3-1</b> |
| 3.1 Comparison to Standards.....                                           | 3-1        |
| 3.2 Outlier and Trend Analysis.....                                        | 3-2        |
| 3.3 2025 Water Quality Results.....                                        | 3-4        |
| <b>SECTION 4 SUMMARY OF RECOMMENDATIONS .....</b>                          | <b>4-1</b> |
| <b>SECTION 5 REFERENCES .....</b>                                          | <b>5-1</b> |
| <b>APPENDIX A FIGURES .....</b>                                            | <b>A-1</b> |
| <b>APPENDIX B TABLES.....</b>                                              | <b>B-1</b> |
| <b>APPENDIX C LABORATORY ANALYTICAL REPORTS.....</b>                       | <b>C-1</b> |
| <b>APPENDIX D DNR SAMPLING FORMS AND DOCUMENTATION.....</b>                | <b>D-1</b> |
| <b>APPENDIX E FACILITY INSPECTIONS.....</b>                                | <b>E-1</b> |
| <b>APPENDIX F HISTORICAL GROUNDWATER QUALITY FIGURES .....</b>             | <b>F-1</b> |

## Tables

|                                                                                                                |      |
|----------------------------------------------------------------------------------------------------------------|------|
| Table 3-1: Summary of GPC Landfill Statistical Analysis 2016 Through 2025.....                                 | 3-2  |
| Table B-1: Monitoring Program Summary .....                                                                    | B-2  |
| Table B-2: Monitoring Program Implementation Schedule.....                                                     | B-3  |
| Table B-3: Monitoring Well Maintenance and Performance Schedule .....                                          | B-4  |
| Table B-4: Monitoring Well Maintenance and Performance Summary .....                                           | B-5  |
| Table B-5: Background Summary (MW-2 and MW-3).....                                                             | B-8  |
| Table B-6: Summary of Well/Detected Constituent Pairs with No Immediately Preceding Control Limit Exceed ..... | B-10 |
| Table B-7: Summary of Ongoing and Newly Identified Control Limit Exceedance.....                               | B-11 |
| Table B-8: Analytical Data Summary.....                                                                        | B-14 |
| Table B-9: Historical Control Limits and Action Level Exceedances .....                                        | B-19 |

## Figures

|                                           |     |
|-------------------------------------------|-----|
| Figure A-1: Water Table Contour Map ..... | A-2 |
|-------------------------------------------|-----|

## Executive Summary

Grain Processing Corporation (GPC) owns a private landfill regulated under [567] IAC Chapter 103 and closed under Permit #58-SDP-03-92C. The landfill previously operated as a disposal facility of Coal Combustion Residue (CCR) from GPC's Muscatine, Iowa, corn processing facility until July 2015 and spent diatomaceous earth until June 2016. The Iowa Department of Natural Resources (IDNR) approved a Closure/Post-Closure Plan for the site in September 2016 and closure/post-closure construction activities were completed in 2018. GPC is overseeing this site under a 10-year Closure Permit issued in January 2019.

This Annual Water Quality Report (AWQR) is submitted to comply with requirements of GPC's landfill permit and Iowa Administrative Code (IAC) 567, Chapter 103.1 (4) e. The report covers ground water quality monitoring activities that were completed in 2025.

In addition to groundwater quality monitoring, GPC conducts semiannual inspections to evaluate final landfill cover for differential settling, surface cracks, holes, erosion channels, or any interference with surface drainage. No changes are recommended to the semiannual inspection schedule.

A review of the monitoring well network and groundwater elevation level measurements identify (1) a steady groundwater flow gradient and pattern that persists both horizontally and vertically, and (2) "MW-5 has been observed to maintain minimal observed groundwater levels and no evident recharge during the Fall 2022, Fall 2024, and Spring 2025 sampling events. Spring 2023 allowed for normal sampling conditions as observed prior to Fall 2022. MW-5 will be further assessed based on the groundwater observations in Fall 2026. No changes to the hydrologic monitoring system plan are recommended at this time.

Groundwater quality results identify similar findings to the 2024 results and include the following 2025 exceedances of an US Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL):

» Arsenic at MW-18

All other water quality results do not exceed MCLs (see Table 9).

Iron and manganese continue to be detected at upgradient/background monitoring locations at levels that are above applicable non-MCL standards. Excluding iron and manganese, there were 11 detections observed above regulatory thresholds in 2025 in monitoring wells downgradient of the landfill. These 2025 detections were compared to 2024 detections where non-stable or non-declining trend results were observed in 2024. The results of this comparison found the 2025 concentrations were similar or lower in value to what had been observed in 2024.

Background limits or control limits in 2025 were compared for MW-2 and MW-3. Results identified exceedances for the corresponding control limit and a regulatory standard for iron and manganese. A review of results shows that a majority of the parameters that had exceedances above regulatory thresholds are remaining relatively similar to slightly decreasing in concentrations from 2024 to 2025.

Stanley Consultants recommends that the current monitoring program be continued in 2025 with the groundwater sampling event to occur in the Fall of 2026.

## Glossary of Terms

**AL** – Action Level

**AMSL** – Above mean sea level

**AWQR** – Annual Water Quality Report

**CCR** – Coal Combustion Residual

**CL** - Control Limit (M+/-2SD)

**DNR** – Department of Natural Resources

**GPC** – Grain Processing Corporation

**HAL** – Health Advisory Level

**HMSP** – Hydrologic Monitoring System Plan

**HR Green** – HR Green, Inc.

**IAC** – Iowa Administrative Code

**IDNR** – Iowa Department of Natural Resources

**IGS** – Iowa Geological Survey

**MCL** – Maximum Contaminant Level

**MW** – Monitoring Well

**NC** – No Change

**NPGW** – Non-Protected Groundwater

**PGW** – Protected Groundwater

**PL** – Prediction Limit

**RL** – Reporting Limit

**SDWR** – Secondary Drinking Water Regulations

**SWS** – Statewide Standard

**TSS**- Total Suspended Solids

**US EPA** – United States Environmental Protection Agency

## Section 1 Introduction

### 1.1 Background

Grain Processing Corporation (GPC) maintains a private landfill regulated under 567 Iowa Administrative Code (IAC) Chapter 103 and that has been closed under Permit #58-SDP-03-92C. The landfill previously operated as a disposal facility of Coal Combustion Residual (CCR) from GPC's Muscatine, Iowa, corn processing facility. The landfill is located in Louisa County, approximately 10 miles southwest of the City of Muscatine, Iowa.

In 2015 GPC modified its processing plant boilers to use natural gas as a fuel source rather than coal, thus eliminating the generation of CCR. CCR was last disposed of at the landfill on July 15, 2015. Disposal of spent diatomaceous earth (aka spent carbon) from GPC's filtering process continued until June 29, 2016.

Disposal of GPC's wastes ended prior to the landfill reaching full build-out conditions as designed under the 2011 permit. A Closure/Post-Closure Plan prepared by HR Green was approved by the Iowa Department of Natural Resources (IDNR) on September 28, 2016. The closure/post-closure construction activities were completed in 2018. GPC received a 10-year Closure Permit for this facility on January 3, 2019. Per this permit, no additional waste disposal or landfill-related activities are to be completed at the facility. Annual sample collection and liquid level (groundwater/leachate) measurements are to be completed per Special Provisions X.6.a-g and X.8 of the Closure Permit. This included monthly site inspections for at least the first year of post-closure (which has been completed) and semiannual inspections thereafter.

Semiannual inspections evaluate final landfill cover for differential settling, surface cracks, holes, erosion channels, or any interference with surface drainage. Semiannual inspections were completed by GPC and are attached to this report in Appendix C.

In accordance with [567] IAC Chapter 103.1(4)e and Special Provision X.6.h of the landfill closure permit, this annual water quality report summarizes the effect that the landfill is having on groundwater and surface water quality.

Under Permit Special Provisions X.6.e and the approved Hydrologic Monitoring System Plan (HMSP), routine sampling is conducted as a single annual event. The event addressed herein is referenced as April 14th and 15th, 2025.

### 1.2 Hydrologic Monitoring System Plan

The approved HMSP consists of the following monitoring wells: MW-2 is the upgradient comparison point for MW-4. Well MW-3 is the upgradient comparison point for MW-5<sup>1</sup>, MW-10, MW-15<sup>1</sup>, MW-16, MW-17, and MW-181. Surface water monitoring is not required. The monitoring locations and units monitored by the HMSP wells are described in Table 1. The 2025 sample collection was completed on April 14th and 15th, 2025. Annual sampling was conducted on an IDNR-approved schedule that continues the seasonal variation with spring month sample collection in 2025. Sample collection schedule information is included in Table 2.<sup>1</sup>

---

<sup>1</sup> As referenced herein MW-5 and MW-15 are the same as replacement wells MW-5R and MW-15R constructed in 2011. For water quality background comparison, MW-5 is considered an upgradient monitoring location.

Under the Closure Permit Special Provisions X.6.e, HMSP monitoring wells are tested for total arsenic, barium, beryllium, boron, calcium, cobalt, copper, iron, lead, lithium, magnesium, manganese, potassium, selenium, sodium, and zinc; pH, bicarbonate alkalinity, chloride, sulfate, and TSS as outlined in Table 2. Water samples are field screened for pH. For all remaining contaminants, groundwater samples are collected via a low-flow method, placed in laboratory provided containers, and preserved on ice prior to submitting samples to the laboratory. Samples are analyzed by Eurofins Environment Testing North Central located in Cedar Falls, Iowa.

Groundwater level measurement points include each of the above-listed HMSP monitoring wells plus several other wells retained as measurement points including MW-1, MW-6, MW-7, MW-8, MW-9, and MW-11. The locations of the monitoring wells and water level measurement points are shown on the Water Table Contour Map (Figure 1).

### 1.3 Geologic Setting

Prior to being a landfill the property was undeveloped land. The landfill is located on the boundary of the landform regions referred to as the Southern Iowa Drift Plain and the Mississippi Alluvial Plain. The Southern Iowa Drift Plain is characterized topographically by steeply rolling hills interspersed with areas of uniformly level upland divides and level alluvial lowlands. Topography of the Mississippi Alluvial Plain is characterized by gently undulating to nearly level relief located along rivers and major streams.

The site is defined by a topographic ridge to the west, Muscatine Slough to the east, and eroded bluff ravines to the north and south. The fill area consists of two east-west trending ravines. The ravines cut back into the west topographic ridge. An earthen embankment composed of glacial till was constructed across the downslope toe of the ravines to complete the waste containment area.

The topography ranges from approximately 735 feet above mean sea level (AMSL) along the upland divides to approximately 670 feet AMSL in the alluvial lowlands. The soils and sediments within the area are either glacial or alluvial in origin. The glacial sediments are comprised of loess, till, and glaciofluvial deposits.

Loess is defined as a deposit of wind-blown rock fragments composed of clay and silt sized particles. The fine particles were originally produced from the grinding effect of continental glaciers on pre-existing rock. The resulting particles were carried by wind and deposited in varying thicknesses throughout southeast Iowa. The loess deposits in the area of the landfill range from 9 to 25 feet thick.

Glacial till is characterized by a mixture of different sized particles deposited by glacial ice without evidence of particle sorting or stratification. The glaciofluvial (outwash) deposits, in contrast, are lenses of sand and gravel exhibiting some degree of particle sorting and stratification. These units were deposited either under the ice or along its margin by glacial melt waters. The thickness of the till varies greatly ranging from “not present” beneath the Mississippi River valley to nearly 350 feet beneath the upland areas west of Muscatine Island.

Present-day soils were derived from weathering of the loess and till parent materials. The predominate soil type is represented by the Fayette silt loam along the bluff tops, the Douds-Lindley loams along the ravine side slopes, and the Olmitz loam over the alluvial deposits of Muscatine Island.

The cumulative thickness of the surficial material overlying bedrock is primarily controlled by bedrock topography. The average elevation of the bedrock in the vicinity of the landfill is between 350 and 400 feet AMSL (ranging from 135 to 385 feet below surface). The uppermost bedrock beneath the landfill consists of the Devonian age Cedar Valley Limestone. This formation is a finely crystalline and clastic limestone in the upper part; a brown dolomitic limestone in the middle part; and gray argillaceous, fossiliferous limestone in the lower part. The Devonian beneath the landfill is approximately 150 feet thick. Silurian dolomite and Ordovician shale underlie the Devonian System strata.

Three distinct water tables exist with the upper two zones perched and discontinuous and the lower zone forming the uppermost continuous water table. The uppermost water table is perched on glacial till beneath the uplands on the southwestern portion of the site. The upland geologic units crop out along the face of the pre-landfill bluff creating an inferred water table seepage face within the CCR fill area. The lateral extent of this zone is limited to the southwest (upgradient) portion of the site, so downgradient groundwater quality monitoring of this upper water table is not possible because the seepage face is at a higher elevation on the bluff.

The second water table encountered beneath the upland area is observed within an intra-till sand unit. This water table surface is perched on an underlying clay-rich glacial till unit that also crops out along the face of the pre-landfill bluff, again creating an inferred water table seepage face within the CCR fill area. Monitoring wells MW-2 (upgradient) and MW-4 (downgradient) are used to monitor groundwater within this zone. Downgradient monitoring along the east perimeter is again not possible because the seepage face is at a higher elevation on the bluff.

The uppermost continuous water table across the entire site is observed in the lower intra-till sand unit that is located beneath the uplands and in the alluvium of Muscatine Island. This water table is separated from the overlying CCR fill area by several tens of feet of clay-rich till in the upland area and by 45 to 55 feet of unsaturated intra-till sand and alluvium along the eastern perimeter of the landfill. Upgradient monitoring well MW-3 and downgradient wells MW-10, MW-15, MW-16, MW-17, and MW-18 are used to monitor groundwater in this zone.

Another perched zone of limited aerial extent is observed near the northeast corner of the landfill at well cluster MW-5/MW-15. MW-5 is used to monitor groundwater within this zone that is perched on a floodplain clay deposit. The perched zone does not appear to be hydraulically connected to the uppermost continuous aquifer that is monitored by wells MW-3, MW-10, MW-15, MW-16, MW-17, and MW-18. The impact of the local confining clay layer is evidenced by the head differential observed between MW-5 and MW-15, which is consistently 5 to 10 feet (see Table 4). Provided the head differential exists, it appears the water quality monitored at MW-5 and MW-15 are representative of distinct hydrologic units. Because of the isolated nature of the perched zone, MW-5 does not have a corresponding upgradient counterpart.

Specifically, at well cluster MW-5/MW-15, a low permeability alluvial layer extends from 532-536 feet AMSL. The base of the filter pack for shallow well MW-5 extends down to 534.86 feet AMSL, while the top of the filter pack for deeper well MW-15 extends up to 533.00 feet AMSL. These elevations illustrate that the filter pack intervals for these two wells are separated by approximately 2 feet within the clay layer. The constructed condition of MW-5 and MW-15 does not create a hydrologic cross connection between the over- and under-lying aquifers. That is because (1) each well is known to intersect the same low permeability alluvial clay layer, but not fully crosscut it, and (2) the wells are offset horizontally by several feet meaning the wells do not create a physical conduit vertically through the clay. As such, the water level

measurements and water quality at MW-5 reflect a perched condition above the clay layer; and the levels and quality at MW-15 reflect the underlying groundwater that is representative of the uppermost continuous aquifer beneath the site.

## Section 2      Monitoring Well Maintenance and Performance Summary

Reviews of well performance are conducted to confirm that the HMSP-approved wells continue to function as viable monitoring points. A schedule of these reviews is included in Table 3. A summary of the well information is presented in Table 4. This table includes a record of high and low water levels at each monitoring well and reports the change in depth of well from initial installation and vertical gradient information for nested monitoring locations. No new record low or record high water levels were observed at MW-5 in 2025. No new record high water levels were observed during 2025. Vertical gradient conditions remain consistent with historic observations, the magnitude of the gradients are similar where a recharge (downward) vertical hydraulic gradient is observed in the upland area (MW-1/2/3) and a neutral vertical gradient in the alluvial lowland area (MW-9/10/11). The vertical gradient at MW-5/15 is downward but MW-5 is screened within a perched water table zone.

Additionally, under Closure Permit Special Provision X.8, the annual liquid levels are recorded at two piezometers (LPZ-12 and LPZ-14). Information collected at these locations is included in Table 4.

The current review indicates: (1) a steady groundwater flow gradient and pattern persists both horizontal and vertical (Figure 1 and Table 4), and (2) the wells remain viable sampling points as they are physically intact, void of excessive turbidity with stable well depth measurements, and provide the anticipated recharge during sampling. No changes to the hydrologic monitoring system plan are recommended.

## Section 3 Annual Monitoring Results

### 3.1 Comparison to Standards

Statistical methods, tabulations, and graphics have been compiled for this report using data collected from 2016-2025. With the exception of well MW-5, which was dry in 2022, 2024, and 2025, the minimum of eight samples for statistical analysis have been collected. Interwell control limits were also assessed taking the average at the background well and adding (or subtracting for pH) two standard deviations from that value. As control limits change each year based on results from previous years, only the results from this year are evaluated in this report.

Where the parameters have a MCL<sup>2</sup> established by the U.S. EPA, the water quality data are evaluated in relation to the established MCL's, or where an MCL does not exist, the result is compared to the HAL<sup>3</sup> or SDWR<sup>4</sup> (U.S. EPA edition of the Drinking Water Standards and Health Advisories, 2018). Where an MCL, HAL, or SDWR standard does not exist, the result is compared to the Iowa SWS<sup>5</sup> for a protected, or non-protected, groundwater source.

The analytical reporting limit (or method detection limit) is defined as the practical and routinely achievable detection level that provides a relatively good certainty that any reported value is reliable. As many results are observed in concentrations that are less than the reporting limit (i.e., the result is reported as “not detected”), an accurate calculation of the mean concentration and standard deviation values from the data set cannot be completed. For purposes of water quality comparison, the means, standard deviations, and control limits are computed by utilizing the reporting limit value in the computations. This procedure slightly overestimates the control limit.

When a parameter is not detected during analysis the result is plotted on the graph at the numeric value of the reporting limit. This data may appear to be an exception when viewed on the graph, if detection limits vary in results however, this occurrence is inconclusive as to whether the parameter has exceeded the control limit. The calculated control limits for both MW-2 and MW-3 and applicable standards are listed in Table 5.

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<sup>2</sup> The highest level of contaminant allowed in drinking water. MCLs are enforceable standards.

<sup>3</sup> An estimate of acceptable drinking water levels for a chemical substance based on health effect information. This is not a legally enforceable Federal standard, but serves as technical guidance to assist Federal, State, and local officials.

<sup>4</sup> Non-enforceable Federal guidelines regarding cosmetic effects (such as tooth or skin discoloration) or aesthetic effects (such as taste, odor, or color) of drinking water.

<sup>5</sup> Chapter 137 of Iowa DNR voluntary cleanup rules prescribed SWSs for groundwater/ Two classes are distinguished by the hydraulic conductivity (K) of the aquifer and the naturally occurring total dissolved solids (TDS) content. Groundwater in a useable aquifer ( $K \geq 0.44$  m/d and  $TDS < 2,500$  mg/L) has a higher level of protection than groundwater that is not likely to be used.

### 3.2 Outlier and Trend Analysis

To determine the water quality trends and potential outliers from 2025 sampling trends, a statistical analysis was completed using ProUCL 5.2. ProUCL is a software program developed by the EPA for the statistical analysis of outliers and trends, among other analyses. Since the number of analysis for each well-constituent pair is below 25, the Rosner test is used by ProUCL to determine outliers at a 95% confidence interval. ProUCL denotes “upper tail” outliers as outliers that are above existing values while “lower tail” outliers are outliers that are below existing values. For values that below the detection limit, ½ the detection limit was used for statistical analysis.

As discussed in Section 3.1, statistical analysis was not determined for MW-5 since only seven samples have been collected at this location. Additionally, outlier analysis was not performed for beryllium, copper, selenium, and zinc since a majority of results for each well were below the detection limit. Statistical analysis was not also completed for other well-constituent pairs that had at least 50% of non-detects in the data set. There were no outliers identified as part of a statistical analysis using ProUCL.

Since the outliers have not been determined to be due to a sampling and analysis error, the data points will not be removed from consideration of trends and future outliers. Trends were determined using the Mann-Kendall test in ProUCL. The Mann-Kendall test has three potential trends: 1) an increasing trend that signifies that the concentrations are increasing at a significance level was above 95%, 2) a decreasing trend that signifies that the concentrations are decreasing at a significance level of 95% and, 3) no trend if the Mann-Kendall statistic is 0 or the confidence level is below 95%. Similar to the outlier analysis, statistical analysis was not performed for MW-5 or for well-constituent pairs that had at least 50% non-detects in the data set. Table 3-1 summarizes the 2024 trends for applicable well-constituent pairs with an additional discussion for each parameter that trend analysis could be completed for.

**Table 3-1: Summary of GPC Landfill Statistical Analysis 2016 Through 2025**

| Chemical Constituent          | Upgradient of Landfill Trends |      | Downgradient of Landfill Trends |       |       |       |       |       |
|-------------------------------|-------------------------------|------|---------------------------------|-------|-------|-------|-------|-------|
|                               | MW-2                          | MW-3 | MW-4                            | MW-10 | MW-15 | MW-16 | MW-17 | MW-18 |
| <b>Arsenic</b>                | NA                            | NA   | NT                              | NA    | NA    | NA    | NT    | NT    |
| <b>Barium</b>                 | NT                            | NT   | NT                              | NT    | ↓     | NT    | NT    | NT    |
| <b>Bicarbonate Alkalinity</b> | ↑                             | NT   | NT                              | NT    | ↓     | ↑     | NT    | NT    |
| <b>Boron</b>                  | NA                            | NA   | NT                              | NT    | ↓     | ↑     | NT    | NT    |
| <b>Calcium</b>                | NT                            | NT   | NT                              | NT    | NT    | ↑     | ↑     | NT    |
| <b>Chloride</b>               | NT                            | NA   | NT                              | NT    | ↓     | ↑     | NT    | NT    |
| <b>Cobalt</b>                 | ↑                             | NT   | NT                              | NT    | NT    | NT    | NT    | ↓     |
| <b>Iron</b>                   | NT                            | NT   | NT                              | NT    | NT    | NT    | NT    | NT    |

| Chemical Constituent                                                                                                                                                                                                                                                                                                                                                                                                | Upgradient of Landfill Trends |      | Downgradient of Landfill Trends |       |       |       |       |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|---------------------------------|-------|-------|-------|-------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                     | MW-2                          | MW-3 | MW-4                            | MW-10 | MW-15 | MW-16 | MW-17 | MW-18 |
| <b>Lead</b>                                                                                                                                                                                                                                                                                                                                                                                                         | NA                            | NA   | NA                              | NA    | NA    | NA    | NT    | NT    |
| <b>Lithium</b>                                                                                                                                                                                                                                                                                                                                                                                                      | ↑                             | ↑    | NA                              | ↓     | NT    | ↑     | ↑     | NT    |
| <b>Magnesium</b>                                                                                                                                                                                                                                                                                                                                                                                                    | NT                            | NT   | NT                              | NT    | ↓     | ↑     | ↑     | NT    |
| <b>Manganese</b>                                                                                                                                                                                                                                                                                                                                                                                                    | NT                            | NT   | NT                              | NT    | NT    | NT    | NT    | ↓     |
| <b>Potassium</b>                                                                                                                                                                                                                                                                                                                                                                                                    | ↑                             | NT   | NT                              | ↑     | NT    | ↑     | NT    | NT    |
| <b>Sodium</b>                                                                                                                                                                                                                                                                                                                                                                                                       | NT                            | NT   | NT                              | ↓     | NT    | ↑     | ↓     | ↓     |
| <b>Sulfate</b>                                                                                                                                                                                                                                                                                                                                                                                                      | NT                            | NT   | NT                              | NT    | NT    | NT    | NT    | NT    |
| <b>TSS</b>                                                                                                                                                                                                                                                                                                                                                                                                          | NT                            | NT   | ↓                               | NT    | NT    | NT    | NT    | NT    |
| <b>Notes:</b><br>NA – Not analyzed due to at least 50% non-detects in the data set from 2016-2025<br>NT – No trend from 2016-2025<br>↑ – An increasing trend at the 95% confidence interval from 2016-2025<br>↓ – A decreasing trend at the 95% confidence interval from 2016-2025<br>*MW-5 does not have enough data to run the Statistical Analysis and is excluded in the statements below describing all wells. |                               |      |                                 |       |       |       |       |       |

**Arsenic** – A statistical trend analysis was able to be completed in 2025 for wells MW-4, MW-17, and MW-18 and no trend was present at these three wells.

**Barium** – A statistical trend analysis was able to be completed in 2025 for all wells and a decreasing trend was observed at downgradient well MW-15. The remaining wells did not have a trend.

**Bicarbonate Alkalinity** – A statistical trend analysis was able to be completed in 2025 for all wells. Upgradient well MW-2 and downgradient MW-16 showed an increasing trend while downgradient well MW-15 showed a decreasing trend. The remaining wells showed no trend.

**Boron** – A statistical trend analysis was able to be completed in 2025 for all downgradient wells. Downgradient well MW-15 displayed a decreasing trend while downgradient well MW-16 had an increasing trend. The remaining wells did not display a trend.

**Calcium** – A statistical trend analysis was able to be completed in 2025 for all wells. Downgradient wells MW-16 and MW-17 has an increasing trend while the remaining wells had no trend.

**Chloride** – A statistical trend analysis was able to be completed in 2025 for all wells except upgradient well MW-3. Downgradient well MW-16 had an increasing trend, downgradient well MW-15 had a decreasing trend, and the remaining wells had no trend.

**Cobalt** – A statistical trend analysis was able to be completed in 2025 for all wells. Upgradient well MW-2 had an increasing trend while downgradient well MW-18 had a decreasing trend. The remaining wells did not exhibit a trend.

**Iron** – A statistical trend analysis was able to be completed in 2025 for all wells with no trend observed in each well.

**Lead** – A statistical trend analysis was able to be completed in 2025, and no trend was observed downgradient wells MW-17 and MW-18. The remaining wells did not have enough detected concentrations for statistical analysis.

**Lithium** – A statistical trend analysis was able to be completed in 2025 for all wells except downgradient well MW-4. An increasing trend was observed at upgradient wells MW-2 and MW-3 and downgradient wells MW-16 and MW-17. Downgradient well MW-10 showed a decreasing trend, and the remaining wells did not have a trend.

**Magnesium** – A statistical trend analysis was able to be completed in 2025 for all wells. Downgradient wells MW-15 had a decreasing trend, downgradient wells MW-16 and MW-17 had an increasing trend, and the remaining wells did not have a trend.

**Manganese** – A statistical trend analysis was able to be completed in 2025 for all wells. Downgradient well MW-18 had a decreasing trend while the remaining wells did not have a trend.

**Potassium** – A statistical trend analysis was able to be completed in 2025 for all wells. An increasing trend was observed in upgradient well MW-2 and downgradient wells MW-10 and MW-16. The remaining wells did not have a trend.

**Sodium** – A statistical trend analysis was able to be completed in 2025 for all wells. A decreasing trend was observed at downgradient wells MW-10, MW-17, and MW-18 and an increasing trend was observed at MW-16. The remaining wells did not have a trend.

**Sulfate** – A statistical trend analysis was able to be completed in 2025 for all wells and no wells had an increasing or decreasing trend.

**TSS** – A statistical trend analysis was able to be completed in 2025 for all wells. Downgradient well MW-4 exhibited a decreasing trend and the remaining wells did not have a trend.

### 3.3 2025 Water Quality Results

Sampling of the HMSP-approved monitoring points was conducted during the period of April 14<sup>th</sup> and 15<sup>th</sup>, 2025. Table 6 provides a summary of monitoring points and detected constituents from the recent sampling activity and the 2025 sampling event that did not exceed a control limit. Table 7 is a summary of ongoing or newly identified exceedances of control limits. Table 8 includes the historical sample results at this facility from 2016-2025. Table 9 summarizes findings from 2016-2025 where exceedances have occurred. In this table, results from 2016-2024 were compared to the 2025 calculated control limit (mean +/-2 standard deviations). A complete list of results is provided in the laboratory Analytical Report in Appendix

A. Appendix D contains graphs showing water quality results from 2016 to 2025 and includes applicable regulatory standards and 2025 calculated control limits.

Some general observations about groundwater quality include:

MW-5 expressed insufficient volume for recovery through low flow purging during the April 14-15, 2025 sampling event. No samples were collected during the event, therefore MW-5 data was entered as dry and an attempt to resample will occur during the Fall 2026 sampling event.

Arsenic at MW-18 was reported above the MCL. The arsenic concentration observed at this location decreased in 2025 compared to the increase from the observed concentration reported in 2024, as shown in the arsenic plot included in Appendix D. Concentrations at MW-18 were the lowest documented concentration since the 8/29/2018 and 9/28/2025 sampling event. All other compounds at all sample points were reported below the MCL.

Manganese and iron exceed regulatory limits in upgradient locations MW-2 and MW-3. Iron concentrations at MW-2 have not been detected above the RL during the 2024 and 2025 sampling events. These upgradient values reflect ambient (background) conditions of the monitored aquifers.

Excluding the iron and manganese detections above regulatory limits, there were 11 detections observed above regulatory thresholds in 2025 in monitoring wells downgradient of the landfill.

A review of non-stable or non-decreasing trend results for sample locations and contaminants where concentration exceeded regulatory standards from 2024 compared to the 2025 results identified the following:

- » No detection of iron concentrations at MW-2 in 2025, expressing two consecutive years (2024 and 2025) with no detected concentrations .
- » Slight increase in iron concentration observed at MW-3 in 2025 as was observed in 2024.
- » Decreased observed arsenic and iron concentrations at MW-18 in 2025 compared to 2024.
- » Decreased concentrations of cobalt in MW-4 and MW-17 in 2025 compared to 2024. MW-17 observed cobalt concentration was below the PGW SWS level.
- » Slight decrease in cobalt concentration at MW-16 in 2025 compared to 2024. MW-16 observed cobalt concentration was below the PGW SWS level.
- » Additional sampling events will continue to inform the results
- » The first detection of boron was observed at MW-2.
- » Boron concentrations were observed increasing in MW-4, MW-10, MW-15, MW-16, MW-17, and MW-18.
- » Manganese concentrations were observed slightly decreasing at MW-2, MW-4, MW-15, MW-16, MW-17, and MW-18, while concentrations slightly increased at MW-4 and MW-10.

Several constituents were detected above the control limit (MW-2) at MW-4 with twelve (12) constituents either being below their respective regulatory threshold or did not have an applicable threshold. Iron, manganese, and cobalt were reported above their respective regulatory threshold.

Several constituents were detected above control limits (MW-3) at downgradient monitoring well locations and below their respective regulatory threshold with the following exceptions:

- » Arsenic at MW-18 above the MCL (0.01 mg/L);
- » Boron at MW-10 and MW-16 above the HAL (6 mg/L);
- » Iron at MW-16, MW-17, and MW-18 above the SDWR (0.3 mg/L);
- » Lithium at MW-10, MW-16, and MW-18 above the SWS (0.014 mg/L);
- » Manganese at MW-16, MW-17, and MW-18 above the HAL (0.3) / SDWR (0.05); MW-10 and MW-15 (SDWR only);
- » Sodium at MW-10, MW-15, and MW-16 above the HAL (20 mg/L); and
- » Sulfate at MW-10 above the SDWR (250 mg/L).

Overall, there appears to be localized impact on groundwater quality near the east perimeter of the fill area.

There are no changes recommended at this time related to the sample collection schedule and parameters to be sampled. The next sample event is planned for Fall 2026.

## Section 4      Summary of Recommendations

1. The next sampling event is tentatively scheduled for Fall 2026 with additional sampling events as detailed in Table 2.
2. Based on review of the horizontal and vertical hydraulic gradients and well conditions, no changes to the hydrologic monitoring system plan or well maintenance is recommended at this time.
3. No additional site groundwater quality assessment is recommended at this time.
4. Annually submit a report (AWQR) by November 30 which summarized the effects the facility is having on groundwater quality. If a sampling event is performed during the winter months (i.e., 4th quarter calendar year) GPC may request an alternative submittal date to accommodate sample analysis.
5. Inspections will be completed on a semiannual basis.

## Section 5      References

EPA, 2015. ProUCL Version Guide, EPA/600/R-07/041, October 2015

Howard R. Green Company, 2009. Hydrologic Monitoring System Plan section of the Permit Renewal Application, May 2009, Grain Processing Corporation, Muscatine, Iowa.

Howard R. Green Company, 1995. Amended Hydrologic Monitoring System Plan Grain Processing Corporation, Muscatine, Iowa. Unpublished report, 12 pp. plus appendices.

Howard R. Green Company, March 1994. Hydrogeologic Investigation Report and Proposed Hydrologic Monitoring System Plan, Grain Processing Corporation, Muscatine, Iowa. Unpublished report, 45 pp. plus appendices.

HR Green, March 2017 (draft report). Construction Documentation & Final Closure Report, Grain Processing Corporation CCR Landfill.

HR Green, September 19, 2016. Closure / Post-closure Plan Grain Processing Corporation, Muscatine, Iowa.

HR Green, 2001-2020. Annual Water Quality Reports, Grain Processing Corporation, Muscatine, Iowa. Unpublished reports.

HR Green, 2012. Final Cover Construction Record Drawings Sheet 1, Grain Processing Corporation, Muscatine, Iowa.

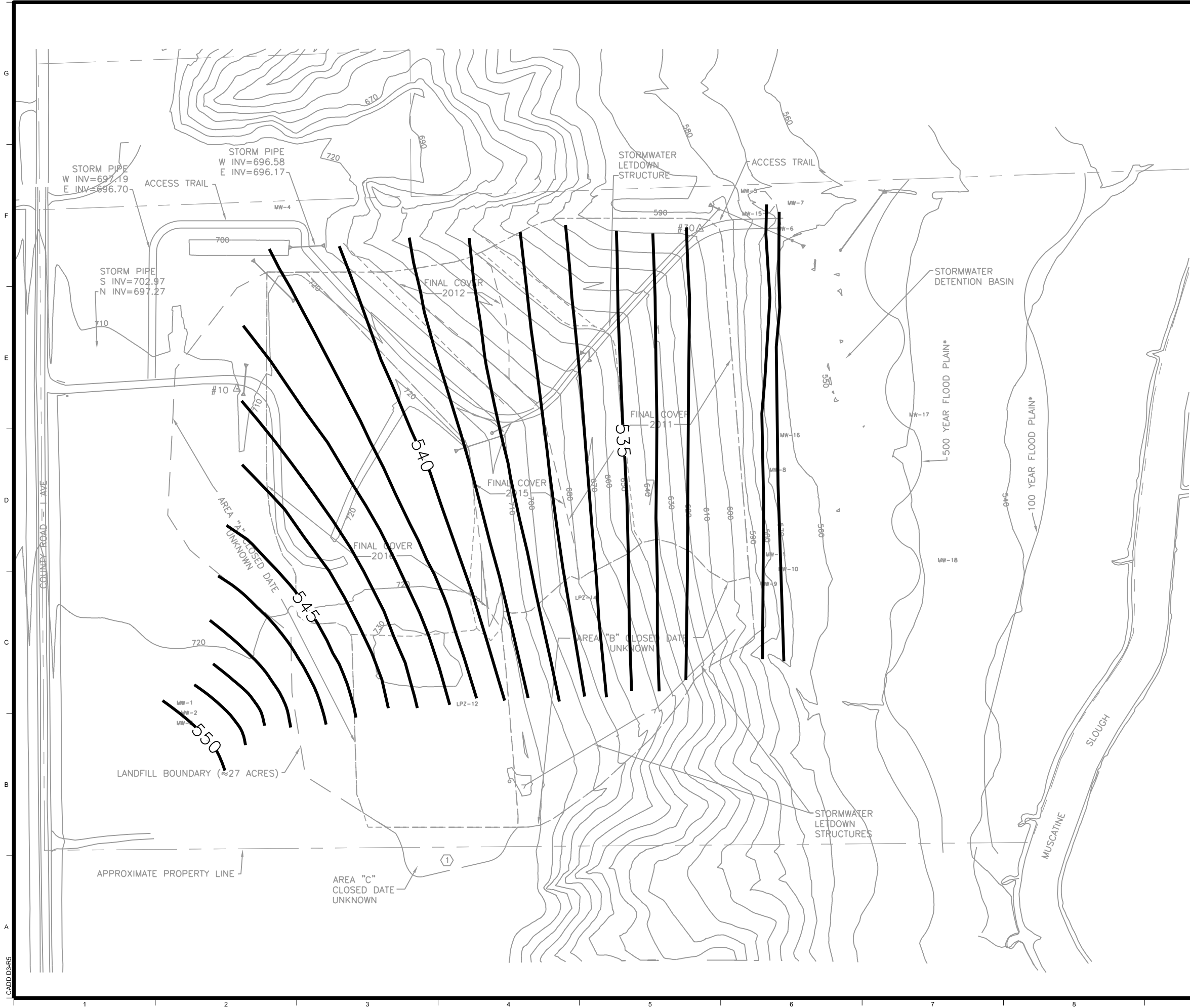
U.S. Environmental Protection Agency (EPA), 2018. Drinking Water Standards and Health Advisories; EPA 822-F-18-001, March 2018.

U.S. Geological Survey (USGS), 1995. Hydrogeology and Water Quality of the Mississippi River Alluvium Near Muscatine, Iowa, WRIR-95-4049.

## Appendix A      Figures

Figure A-1      Water Table Contour Map

**Figure A-1: Water Table Contour Map**



LEGEND

- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- CONTROL POINTS
- PIEZOMETERS
- MONITORING WELL
- LANDFILL BOUNDARY
- FINAL COVER BOUNDARY
- WATER TABLE CONTOUR

WATER TABLE IS UPPERMOST AQUIFER MONITORED BY POINTS MW-3, MW-10, MW-15, MW-16, MW-17, AND MW-18.

KEYNOTES:

- A RETRACEMENT SURVEY ADDRESSING THE OFFSITE ASH FILL WAS PREPARED BY MARTIN & WHITACRE SURVEYORS AND FILED WITH LOUISA COUNTY JUNE 5, 2017.

| MONITORING POINTS |           |            |         |         |
|-------------------|-----------|------------|---------|---------|
| DESCRIPTION       | NORTHING  | EASTING    | ELEV ** | POINT # |
| MW-1              | 480569.39 | 2283917.08 | 725.86  | 61017   |
| MW-2 *            | 480562.10 | 2283918.18 | 725.68  | 61016   |
| MW-3 *            | 480555.63 | 2283918.65 | 726.05  | 61015   |
| MW-4 *            | 481599.36 | 2284110.31 | 707.93  | 61012   |
| MW-5 *            | 481607.82 | 2285152.40 | 567.86  | 61002   |
| MW-6              | 481608.74 | 2285159.64 | 568.06  | 61001   |
| MW-7              | 481609.83 | 2285166.72 | 568.07  | 61000   |
| MW-8              | 481043.88 | 2285138.65 | 572.76  | 61005   |
| MW-9              | 480848.82 | 2285145.16 | 578.43  | 61006   |
| MW-10 *           | 480854.95 | 2285144.88 | 577.90  | 61007   |
| MW-11             | 480859.76 | 2285144.58 | 577.79  | 61008   |
| LPZ-12            | 480588.05 | 2284558.37 | 725.65  | 61014   |
| LPZ-13 ***        | 481294.40 | 2284289.61 | 707.29  | 61013   |
| LPZ-14            | 480811.98 | 2284741.90 | 687.48  | 61011   |
| MW-15 *           | 481603.58 | 2285156.26 | 568.00  | 61003   |
| MW-16 *           | 481111.85 | 2285166.16 | 568.45  | 61004   |
| MW-17 *           | 481159.89 | 2285415.19 | 554.67  | 61051   |
| MW-18 *           | 480874.82 | 2285468.74 | 551.31  | 61052   |

- \* HMSP APPROVED MONITORING POINTS
- \*\* ELEVATION FROM TOP OF CASING
- \*\*\* ABANDONED

MAPPING DATUM 8

NAD83 (2011) IOWA STATE PLANE, SOUTH ZONE, U.S. SURVEY FEET  
NAVD88 (GEOID 12A), U.S. SURVEY FEET

SURVEY NOTES:

TOPOGRAPHIC BASE MAP IS A COMPILATION OF AERIAL AND GROUND SURVEYS. PHOTOGRAMMETRIC METHODS BY SIDEWELL COMPANY. DATE OF PHOTOGRAPHY APRIL 25, 2006. GROUND CONTROL BY H.R.GREEN. TOPOGRAPHIC SURVEY OF RECENTLY COVERED AREAS UPDATED BY JB HOLLAND CONSTRUCTION, INC. AND HEROLD-REICKS SURVEYING 12/13/2016 AS PART OF 2016 CLOSURE CONSTRUCTION WORK.

|                                                                                                                                                                                                       |           |      |      |                                           |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------|------|-------------------------------------------|------|
| NO.                                                                                                                                                                                                   | REVISIONS | DSGN | CHKD | APVD                                      | DATE |
| <br><b>Stanley Consultants INC.</b><br>225 Iowa Avenue, Muscatine, Iowa 52761-3764<br>www.stanleyconsultants.com |           |      |      |                                           |      |
| GRAIN PROCESSING CORPORATION<br>CCR LANDFILL<br>MUSCATINE, IOWA                                                                                                                                       |           |      |      |                                           |      |
| <b>WATER TABLE<br/>CONTOUR MAP</b>                                                                                                                                                                    |           |      |      |                                           |      |
| DESIGNED: TS HUMPHREY<br>DRAWN: SL ROENFELDT<br>CHECKED: _____<br>APPROVED: _____<br>APPROVED: _____<br>DATE: _____                                                                                   |           |      |      | SCALE: AS NOTED<br>NO. 31016.02<br>REV. 2 |      |



0 100' 200'

## Appendix B      Tables

|         |                                                                                               |
|---------|-----------------------------------------------------------------------------------------------|
| Table 1 | Monitoring Program Summary                                                                    |
| Table 2 | Monitoring Program Implementation Schedule                                                    |
| Table 3 | Monitoring Well Maintenance and Performance Schedule                                          |
| Table 4 | Monitoring Well Maintenance and Performance Summary                                           |
| Table 5 | Background Summary (MW-2 and MW-3)                                                            |
| Table 6 | Summary of Well/Detected Constituent Pairs with No Immediately Preceding Control Limit Exceed |
| Table 7 | Summary of Ongoing and Newly Identified Control Limit Exceedance                              |
| Table 8 | Analytical Data Summary                                                                       |
| Table 9 | Historical Control Limits and Action Level Exceedances                                        |

**Table 1**  
**Monitoring Program Summary 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Monitoring Well                                                                           | Formation            | Current Monitoring Program | Change for next sampling event | 2025 Control Limit Exceedances                                                                   | No. of Samples in each monitoring program since September 1, 2016 |              |                 |
|-------------------------------------------------------------------------------------------|----------------------|----------------------------|--------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------|-----------------|
|                                                                                           |                      |                            |                                |                                                                                                  | Routine                                                           | Supplemental | Remedial Action |
| MW-01                                                                                     | Till                 | Water Level                | NC                             | N/A                                                                                              | N/A                                                               | N/A          | N/A             |
| MW-02                                                                                     | Upper Intratill Sand | Routine                    | NC                             | None                                                                                             | 10                                                                | 0            | 0               |
| MW-04                                                                                     | Upper Intratill Sand | Routine                    | NC                             | As,Ba, Be, B, Co,Cu, Fe, Li, Mn, Mg, Se, CaCO <sub>3</sub> , K, Na, SO <sub>4</sub>              | 10                                                                | 0            | 0               |
| MW-03                                                                                     | Lower Intratill Sand | Routine                    | NC                             | None                                                                                             | 10                                                                | 0            | 0               |
| MW-05                                                                                     | Perched Clay Deposit | Routine                    | NC                             | N/A (Dry/Insufficient Volume)                                                                    | 10*                                                               | 0            | 0               |
| MW-06                                                                                     | Lower Intratill Sand | Water Level                | NC                             | N/A                                                                                              | N/A                                                               | N/A          | N/A             |
| MW-07                                                                                     | Lower Intratill Sand | Water Level                | NC                             | N/A                                                                                              | N/A                                                               | N/A          | N/A             |
| MW-08                                                                                     | Upper Intratill Sand | Water Level                | NC                             | N/A                                                                                              | N/A                                                               | N/A          | N/A             |
| MW-09                                                                                     | Upper Intratill Sand | Water Level                | NC                             | N/A                                                                                              | N/A                                                               | N/A          | N/A             |
| MW-10                                                                                     | Lower Intratill Sand | Routine                    | NC                             | As, Be, B, Ca,Cu, Pb, Li, Mn, Se, CaCO <sub>3</sub> , K, Na, SO <sub>4</sub> , Zn, Cl            | 10                                                                | 0            | 0               |
| MW-11                                                                                     | Lower Intratill Sand | Water Level                | NC                             | N/A                                                                                              | N/A                                                               | N/A          | N/A             |
| MW-15                                                                                     | Lower Intratill Sand | Routine                    | NC                             | As, Be, B, Co,Cu, Li, Pb, Mn, Se, CaCO <sub>3</sub> , K, Na, SO <sub>4</sub> , Zn, Cl            | 10                                                                | 0            | 0               |
| MW-16                                                                                     | Lower Intratill Sand | Routine                    | NC                             | As, Be, B, Ca,Co,Cu, Li, Pb,Mg, Mn, Se, CaCO <sub>3</sub> , K, Na, SO <sub>4</sub> , Zn, Cl, TSS | 10                                                                | 0            | 0               |
| MW-17                                                                                     | Lower Intratill Sand | Routine                    | NC                             | As, Be, B, Ca,Co,Cu, Fe, Li, Pb,Mg, Mn, Se, CaCO <sub>3</sub> , K, SO <sub>4</sub> , Zn, Cl, TSS | 10                                                                | 0            | 0               |
| MW-18                                                                                     | Lower Intratill Sand | Routine                    | NC                             | As, Ba, Be, B,Cu, Fe, Li, Pb, Se, SO <sub>4</sub> , Zn, Cl, TSS                                  | 10                                                                | 0            | 0               |
| <b>Other monitoring points</b>                                                            |                      |                            |                                |                                                                                                  |                                                                   |              |                 |
| LPZ-12                                                                                    | Fly Ash Waste        | Routine - Leachate         | NC                             | N/A                                                                                              | N/A                                                               | N/A          | N/A             |
| LPZ-14                                                                                    | Fly Ash Waste        | Routine - Leachate         | NC                             | N/A                                                                                              | N/A                                                               | N/A          | N/A             |
| *Well MW-5 dry/contained insufficient volume for sample collected in 2022, 2024, and 2025 |                      |                            |                                |                                                                                                  |                                                                   |              |                 |

**Table 2**  
**Monitoring Program Implementation Schedule 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Monitoring Well | Recent Sampling Dates and Constituents |                          |                          |                          |                          |                          |                          | Upcoming Sampling Dates and Constituents |
|-----------------|----------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------------------|
|                 | 6/25-26/2019                           | 9/21-22/2020             | 4/29-30/2021             | 9/20-21/2022             | 4/4-6/2023               | 9/9-10/2024              | 4/14-15/ 2025            | Fall 2026                                |
| MW-01           | NA - Water Level Only                  | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only                    |
| MW-02           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| MW-03           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| MW-04           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| MW-05           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| MW-06           | NA - Water Level Only                  | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only                    |
| MW-07           | NA - Water Level Only                  | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only                    |
| MW-08           | NA - Water Level Only                  | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only                    |
| MW-09           | NA - Water Level Only                  | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only                    |
| MW-10           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| MW-11           | NA - Water Level Only                  | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only    | NA - Water Level Only                    |
| MW-15           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| MW-16           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| MW-17           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| MW-18           | List A                                 | List A                   | List A                   | List A                   | List A                   | List A                   | List A                   | List A                                   |
| LPZ-12          | NA - Leachate Level Only               | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only                 |
| LPZ-14          | NA - Leachate Level Only               | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only | NA - Leachate Level Only                 |

List A- Arsenic, barium, beryllium, bicarbonate alkalinity as CaCO<sub>3</sub>, boron, calcium, chloride, cobalt, copper, iron, lead, lithium, magnesium, manganese, pH, potassium, selenium, sodium, sulfate, total suspended solids, and zinc.

**Table 3**  
**Monitoring Well Maintenance and Performance Revaluation Schedule 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Compliance with:                                                      | Monitoring Calendar Years |           |           |           |           |           |           |
|-----------------------------------------------------------------------|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                                                       | 2019                      | 2020      | 2021      | 2022      | 2023      | 2024      | 2025      |
| 567 IAC 114.21(2)"a" high and low water levels                        | Completed                 | Completed | Completed | Completed | Completed | Completed | Completed |
| 567 IAC 114.21(2)"b" changes in the hydrologic setting and flow paths | Completed                 | Completed | Completed | Completed | Completed | Completed | Completed |
| 567 IAC 114.21(2)"c" well depths                                      | Completed                 | Completed | Completed | Completed | Completed | Completed | Completed |

**Table 4**  
**Monitoring Well Maintenance and Performance Summary 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well  | Top of Casing (ft, amsl) | Top of Screen (ft, amsl) | Total Depth (ft) |                                | Date of Measurements | Water Levels (ft amsl)** |        | Maximum Depth Discrepancy (ft) |
|-------|--------------------------|--------------------------|------------------|--------------------------------|----------------------|--------------------------|--------|--------------------------------|
|       |                          |                          |                  |                                | 4/14/2025            | Low                      | High   |                                |
| MW-01 | 725.86                   | 710                      | 27.79            | Groundwater Level (ft)         | 27.06                | N/A                      | N/A    | -                              |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 698.8                |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | -                    |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | N                    |                          |        |                                |
| MW-02 | 725.68                   | 670.6                    | 67.35            | Groundwater Level (ft)         | 57.27                | 667.23                   | 673.56 | 2.55                           |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 668.41               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | 64.80                |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | N                    |                          |        |                                |
| MW-03 | 726.05                   | 541.35                   | 196.60           | Groundwater Level (ft)         | 176.7                | 548.97                   | 550.4  | 0.60                           |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 549.35               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | 196.00               |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |
| MW-04 | 707.93                   | 665.8                    | 55.22            | Groundwater Level (ft)         | 46.88                | 659.5                    | 664.88 | -0.28                          |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 661.05               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | 55.50                |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | N                    |                          |        |                                |
| MW-05 | 567.86                   | 546.6                    | 33.25            | Groundwater Level (ft)         | 30.71                | 536.51                   | 542.39 | 0.05                           |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 537.15               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | 33.20                |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | N                    |                          |        |                                |
| MW-15 | 568                      | 532.5                    | 47.24            | Groundwater Level (ft)         | 36.77                | 530.34                   | 534.11 | 1.89                           |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 531.23               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | 45.35                |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | N                    |                          |        |                                |

**Table 4**  
**Monitoring Well Maintenance and Performance Summary 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well  | Top of Casing (ft, amsl) | Top of Screen (ft, amsl) | Total Depth (ft) |                                | Date of Measurements | Water Levels (ft amsl)** |        | Maximum Depth Discrepancy (ft) |
|-------|--------------------------|--------------------------|------------------|--------------------------------|----------------------|--------------------------|--------|--------------------------------|
|       |                          |                          |                  |                                | 4/14/2025            | Low                      | High   |                                |
| MW-06 | 568.06                   | 511                      | 69.55            | Groundwater Level (ft)         | 36.7                 | N/A                      | N/A    | -                              |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 530.84               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | -                    |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |
| MW-07 | 568.07                   | 485.5                    | 86.95            | Groundwater Level (ft)         | 37.23                | N/A                      | N/A    | -                              |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 530.84               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | -                    |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |
| MW-08 | 572.76                   | 548                      | 37.48            | Groundwater Level (ft)         | 37.26                | N/A                      | N/A    | -                              |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 535.50               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | -                    |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |
| MW-09 | 578.43                   | 551.1                    | 35.42            | Groundwater Level (ft)         | 34.59                | N/A                      | N/A    | -                              |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 543.84               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | -                    |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | N                    |                          |        |                                |
| MW-10 | 577.9                    | 532.3                    | 57.59            | Groundwater Level (ft)         | 46.71                | 530.37                   | 533.74 | -0.21                          |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 531.19               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | 57.80                |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |
| MW-11 | 577.79                   | 502.4                    | 82.19            | Groundwater Level (ft)         | 46.7                 | N/A                      | N/A    | -                              |
|       |                          |                          |                  | Groundwater Elevation (Ft MSL) | 531.09               |                          |        |                                |
|       |                          |                          |                  | Measured Well Depth (ft)       | -                    |                          |        |                                |
|       |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |

**Table 4**  
**Monitoring Well Maintenance and Performance Summary 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well   | Top of Casing (ft, amsl) | Top of Screen (ft, amsl) | Total Depth (ft) |                                | Date of Measurements | Water Levels (ft amsl)** |        | Maximum Depth Discrepancy (ft) |
|--------|--------------------------|--------------------------|------------------|--------------------------------|----------------------|--------------------------|--------|--------------------------------|
|        |                          |                          |                  |                                | 4/14/2025            | Low                      | High   |                                |
| MW-16  | 568.45                   | 535.3                    | 55.43            | Groundwater Level (ft)         | 37.12                | 530.3                    | 533.92 | 2.83                           |
|        |                          |                          |                  | Groundwater Elevation (Ft MSL) | 531.33               |                          |        |                                |
|        |                          |                          |                  | Measured Well Depth (ft)       | 52.60                |                          |        |                                |
|        |                          |                          |                  | Submerged screen               | N                    |                          |        |                                |
| MW-17  | 554.67                   | 508.52                   | 59               | Groundwater Level (ft)         | 23.98                | 530.09                   | 533.08 | -4.00                          |
|        |                          |                          |                  | Groundwater Elevation (Ft MSL) | 530.69               |                          |        |                                |
|        |                          |                          |                  | Measured Well Depth (ft)       | 63.00                |                          |        |                                |
|        |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |
| MW-18  | 551.31                   | 513.41                   | 49               | Groundwater Level (ft)         | 20.85                | 529.81                   | 532.74 | -4.20                          |
|        |                          |                          |                  | Groundwater Elevation (Ft MSL) | 530.46               |                          |        |                                |
|        |                          |                          |                  | Measured Well Depth (ft)       | 53.20                |                          |        |                                |
|        |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |
| LPZ-12 | 725.65                   | 690.5                    | 47.68            | Leachate Level (ft)            | 47.31                | -                        | -      | -                              |
|        |                          |                          |                  | Leachate Elevation (Ft MSL)    | 678.34               |                          |        |                                |
|        |                          |                          |                  | Measured Well Depth (ft)       | -                    |                          |        |                                |
|        |                          |                          |                  | Submerged screen               | Y                    |                          |        |                                |
| LPZ-14 | 687.48                   | 636.6                    | 59.85            | Groundwater Level (ft)         | 59.49                | -                        | -      | -                              |
|        |                          |                          |                  | Groundwater Elevation (Ft MSL) | 627.99               |                          |        |                                |
|        |                          |                          |                  | Measured Well Depth (ft)       | -                    |                          |        |                                |
|        |                          |                          |                  | Submerged screen               | N                    |                          |        |                                |

Well information collected from 1994 HIR / \*Gradient calculated on nest wells in the following groups: MW-01, MW-02, MW-03; MW-05, MW-15, MW-06, MW-07; MW-09, MW-10, MW-11; Negative value is a discharge gradient; positive value is a recharge gradient / \*\* Period of record: 2006-2025 (except for MW-17 and MW-18 which started in 2013)

**Table 5**  
**Background Summary**  
**2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Interwell Background/Control Limits (MW-2)  |       |         |            |                  |                  |              |            |
|---------------------------------------------|-------|---------|------------|------------------|------------------|--------------|------------|
| Constituent                                 | Units | Samples | Detections | Background level | Statistical Test | Action Level | Source     |
| <b>Inorganics</b>                           |       |         |            |                  |                  |              |            |
| Arsenic (As)                                | mg/l  | 10      | 0          | 0.00166          | M+/-2SD          | 0.01         | MCL        |
| Barium (Ba)                                 | mg/l  | 10      | 10         | 0.04025          | M+/-2SD          | 2            | MCL        |
| Beryllium (Be)                              | mg/l  | 10      | 0          | 0.00094          | M+/-2SD          | 0.004        | MCL        |
| Boron (B)                                   | mg/l  | 10      | 1          | 0.09115          | M+/-2SD          | 6            | PGW SWS    |
| Calcium (Ca)                                | mg/l  | 10      | 10         | 84.74            | M+/-2SD          | -            | None       |
| Cobalt (Co)                                 | mg/l  | 10      | 6          | 0.00111          | M+/-2SD          | 0.0021       | PGW SWS    |
| Copper (Cu)                                 | mg/l  | 10      | 1          | 0.00428          | M+/-2SD          | 1.3          | AL         |
| Iron (Fe)                                   | mg/l  | 10      | 3          | 0.54606          | M+/-2SD          | 0.3          | SDWR       |
| Lead (Pb)                                   | mg/l  | 10      | 1          | 0.00050          | M+/-2SD          | 0.01         | AL         |
| Lithium (Li)                                | mg/l  | 10      | 8          | 0.00947          | M+/-2SD          | 0.014        | PGW SWS    |
| Magnesium (Mg)                              | mg/l  | 10      | 10         | 37.66            | M+/-2SD          | -            | None       |
| Manganese (Mn)                              | mg/l  | 10      | 10         | 0.22667          | M+/-2SD          | 0.3 / 0.05   | HAL / SDWR |
| Potassium (K)                               | mg/l  | 10      | 10         | 0.51437          | M+/-2SD          | -            | None       |
| Selenium (Se)                               | mg/l  | 10      | 2          | 0.00465          | M+/-2SD          | 0.05         | MCL        |
| Sodium (Na)                                 | mg/l  | 10      | 10         | 13.37            | M+/-2SD          | 20           | HAL*       |
| Zinc (Zn)                                   | mg/l  | 10      | 2          | 0.01987          | M+/-2SD          | 2            | HAL        |
| <b>General Chemistry</b>                    |       |         |            |                  |                  |              |            |
| Bicarbonate alkalinity as CaCO <sub>3</sub> | mg/l  | 10      | 10         | 295.70           | M+/-2SD          | -            | None       |
| Chloride                                    | mg/l  | 10      | 10         | 19.80            | M+/-2SD          | 250          | SDWR       |
| Sulfate                                     | mg/l  | 10      | 10         | 50.66            | M+/-2SD          | 250          | SDWR       |
| Total suspended solids                      | mg/l  | 10      | 10         | 22.46            | M+/-2SD          | -            | None       |
| <b>Field Parameters</b>                     |       |         |            |                  |                  |              |            |
| pH                                          | SU    | 10      | 10         | 6.69-7.90        | M+/-2SD          | 6.5-8.5      | SDWR       |

**Table 5**  
**Background Summary**  
**2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Interwell Background/Control Limits (MW-3)  |       |         |            |                  |                  |              |            |
|---------------------------------------------|-------|---------|------------|------------------|------------------|--------------|------------|
| Constituent                                 | Units | Samples | Detections | Background level | Statistical Test | Action Level | Source     |
| <b>Inorganics</b>                           |       |         |            |                  |                  |              |            |
| Arsenic (As)                                | mg/l  | 10      | 0          | 0.00166          | M+/-2SD          | 0.01         | MCL        |
| Barium (Ba)                                 | mg/l  | 10      | 10         | 0.24139          | M+/-2SD          | 2            | MCL        |
| Beryllium (Be)                              | mg/l  | 10      | 0          | 0.00089          | M+/-2SD          | 0.004        | MCL        |
| Boron (B)                                   | mg/l  | 10      | 3          | 0.10385          | M+/-2SD          | 6            | PGW SWS    |
| Calcium (Ca)                                | mg/l  | 10      | 10         | 120.75           | M+/-2SD          | -            | None       |
| Cobalt (Co)                                 | mg/l  | 10      | 10         | 0.00445          | M+/-2SD          | 0.0021       | PGW SWS    |
| Copper (Cu)                                 | mg/l  | 10      | 0          | 0.00420          | M+/-2SD          | 1.3          | AL         |
| Iron (Fe)                                   | mg/l  | 10      | 10         | 2.60535          | M+/-2SD          | 0.3          | SDWR       |
| Lead (Pb)                                   | mg/l  | 10      | 2          | 0.00044          | M+/-2SD          | 0.01         | AL         |
| Lithium (Li)                                | mg/l  | 10      | 6          | 0.00931          | M+/-2SD          | 0.014        | PGW SWS    |
| Magnesium (Mg)                              | mg/l  | 10      | 10         | 35.09            | M+/-2SD          | -            | None       |
| Manganese (Mn)                              | mg/l  | 10      | 10         | 0.45009          | M+/-2SD          | 0.3 / 0.05   | HAL / SDWR |
| Potassium (K)                               | mg/l  | 10      | 10         | 1.48276          | M+/-2SD          | -            | None       |
| Selenium (Se)                               | mg/l  | 10      | 0          | 0.00452          | M+/-2SD          | 0.05         | MCL        |
| Sodium (Na)                                 | mg/l  | 10      | 10         | 18.50            | M+/-2SD          | 20           | HAL*       |
| Zinc (Zn)                                   | mg/l  | 10      | 0          | 0.01578          | M+/-2SD          | 2            | HAL        |
| <b>General Chemistry</b>                    |       |         |            |                  |                  |              |            |
| Bicarbonate alkalinity as CaCO <sub>3</sub> | mg/l  | 10      | 10         | 448.23           | M+/-2SD          | N/A          | None       |
| Chloride                                    | mg/l  | 10      | 10         | 4.38             | M+/-2SD          | 250          | SDWR       |
| Sulfate                                     | mg/l  | 10      | 10         | 46.29            | M+/-2SD          | 250          | SDWR       |
| Total suspended solids                      | mg/l  | 10      | 10         | 12.82            | M+/-2SD          | -            | None       |
| <b>Field Parameters</b>                     |       |         |            |                  |                  |              |            |
| pH                                          | SU    | 10      | 10         | 6.53-7.78        | M+/-2SD          | 6.5-8.5      | SDWR       |

**Table 6**  
**Summary of Well/Detected Constituent Pairs With No Immediately Preceding Control Limit Exceedances**  
**2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well  | Constituent            | Units | Most recent result | Control Limit |
|-------|------------------------|-------|--------------------|---------------|
| MW-2  | Barium                 | mg/l  | 0.0361             | 0.04025       |
|       | Calcium                | mg/l  | 77.8               | 84.74         |
|       | Magnesium              | mg/l  | 32.7               | 37.66         |
|       | Sodium                 | mg/l  | 11.8               | 13.37         |
|       | pH                     | SU    | 7.90               | 6.69-7.90     |
|       | Bicarbonate Alkalinity | mg/l  | 283                | 295.70        |
|       | Chloride               | mg/l  | 11.0               | 19.80         |
|       | Sulfate                | mg/l  | 43.5               | 50.66         |
|       | TSS                    | mg/l  | 2.25               | 22.46         |
| MW-4  | pH                     | SU    | 6.80               | 6.69-7.90     |
|       | Chloride               | mg/l  | 12.8               | 19.80         |
|       | TSS                    | mg/l  | 8.25               | 22.46         |
| MW-3  | Barium                 | mg/l  | 0.206              | 0.24139       |
|       | Calcium                | mg/l  | 108                | 120.75        |
|       | Cobalt                 | mg/l  | 0.000604           | 0.00445       |
|       | Magnesium              | mg/l  | 31.5               | 35.09         |
|       | Potassium              | mg/l  | 1.31               | 1.48276       |
|       | Sodium                 | mg/l  | 16.2               | 18.50         |
|       | pH                     | SU    | 7.16               | 6.53-7.78     |
|       | Bicarbonate Alkalinity | mg/l  | 400                | 448.23        |
|       | Sulfate                | mg/l  | 38.8               | 46.29         |
|       | TSS                    | mg/l  | 10.0               | 12.82         |
| MW-10 | pH                     | SU    | 6.77               | 6.53-7.78     |
|       | Iron                   | mg/l  | 0.139              | 2.60534563    |
|       | TSS                    | mg/l  | 7.00               | 12.82         |
| MW-15 | Barium                 | mg/l  | 0.134              | 0.241392184   |
|       | Calcium                | mg/l  | 113                | 120.75        |
|       | Iron                   | mg/l  | 0.134              | 2.60534563    |
|       | pH                     | SU    | 7.28               | 6.53-7.78     |
|       | TSS                    | mg/l  | 7.62               | 12.82         |
| MW-16 | Barium                 | mg/l  | 0.0557             | 0.241392184   |
|       | pH                     | SU    | 7.28               | 6.53-7.78     |
| MW-17 | Barium                 | mg/l  | 0.0591             | 0.241392184   |
|       | Sodium                 | mg/l  | 13.2               | 18.50         |
|       | pH                     | SU    | 7.27               | 6.53-7.78     |
| MW-18 | Calcium                | mg/l  | 118                | 120.75        |
|       | Magnesium              | mg/l  | 32.2               | 35.09         |
|       | Potassium              | mg/l  | 0.834              | 1.482761583   |
|       | Sodium                 | mg/l  | 12.4               | 18.50         |
|       | pH                     | SU    | 7.76               | 6.53-7.78     |
|       | Bicarbonate Alkalinity | mg/l  | 310                | 448.23        |
|       | Chloride               | mg/l  | 13.20              | 4.38          |

**Table 7**  
**Summary of Ongoing and Newly Identified Control Limit Exceedances 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well  | Constituent            | Units | Most recent result | Background Standard<br>(MW-2 equals MW-4; MW-3<br>is remaining Well<br>comparisons) | Action Level/ Statewide<br>Standard |
|-------|------------------------|-------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------|
| MW-2  | Manganese              | mg/l  | 0.0935             | 0.22667                                                                             | 0.05 / 0.3                          |
|       | Boron                  | mg/l  | 0.211              | 0.09115                                                                             | 6                                   |
| MW-4  | Barium                 | mg/l  | 0.147              | 0.04025                                                                             | 2                                   |
|       | Boron                  | mg/l  | 0.244              | 0.09115                                                                             | 6                                   |
|       | Cobalt                 | mg/l  | 0.00588            | 0.00111                                                                             | 0.0021                              |
|       | Iron                   | mg/l  | 7.17               | 0.54606                                                                             | 0.3                                 |
|       | Manganese              | mg/l  | 0.514              | 0.22667                                                                             | 0.05 / 0.3                          |
|       | Potassium              | mg/l  | 1.53               | 0.51437                                                                             | None                                |
|       | Sodium                 | mg/l  | 19.4               | 13.37                                                                               | 20                                  |
|       | Sulfate                | mg/l  | 66                 | 50.66                                                                               | 250                                 |
|       | Calcium                | mg/l  | 110                | 84.74                                                                               | None                                |
|       | Magnesium              | mg/l  | 50.9               | 37.66                                                                               | None                                |
|       | Bicarbonate Alkalinity | mg/l  | 442                | 295.70                                                                              | None                                |
| MW-3  | Iron                   | mg/l  | 2.3                | 2.60535                                                                             | 0.3                                 |
|       | Manganese              | mg/l  | 0.366              | 0.45009                                                                             | 0.05 / 0.3                          |
| MW-5  | Dry                    |       |                    |                                                                                     |                                     |
| MW-10 | Barium                 | mg/l  | 0.0314             | 0.24139                                                                             |                                     |
|       | Boron                  | mg/l  | 6.21               | 0.10385                                                                             | 6                                   |
|       | Calcium                | mg/l  | 361                | 120.75                                                                              | None                                |
|       | Lithium                | mg/l  | 0.214              | 0.00931                                                                             | 0.014                               |
|       | Magnesium              | mg/l  | 106                | 35.09                                                                               | None                                |
|       | Manganese              | mg/l  | 0.0786             | 0.45009                                                                             | 0.05 / 0.3                          |
|       | Potassium              | mg/l  | 12.5               | 1.48276                                                                             | None                                |
|       | Sodium                 | mg/l  | 50.7               | 18.50                                                                               | 20                                  |
|       | Sulfate                | mg/l  | 803                | 46.29                                                                               | 250                                 |
|       | Chloride               | mg/l  | 25.7               | 4.38                                                                                | 250                                 |
|       | Bicarbonate Alkalinity | mg/l  | 593                | 448.23                                                                              | None                                |
| MW-15 | Boron                  | mg/l  | 3.51               | 0.10385                                                                             | 6                                   |
|       | Lithium                | mg/l  | 0.0119             | 0.00931                                                                             | 0.014                               |
|       | Magnesium              | mg/l  | 39.1               | 35.09                                                                               | None                                |
|       | Manganese              | mg/l  | 0.294              | 0.45009                                                                             | 0.05 / 0.3                          |

**Table 7**  
**Summary of Ongoing and Newly Identified Control Limit Exceedances 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well                 | Constituent            | Units | Most recent result | Background Standard<br>(MW-2 equals MW-4; MW-3<br>is remaining Well<br>comparisons) | Action Level/ Statewide<br>Standard |
|----------------------|------------------------|-------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------|
| MW-15<br>(Continued) | Potassium              | mg/l  | 1.91               | 1.48276                                                                             | None                                |
|                      | Sodium                 | mg/l  | 62.1               | 18.50                                                                               | 20                                  |
|                      | Chloride               | mg/l  | 12.2               | 4.38                                                                                | 250                                 |
|                      | Bicarbonate Alkalinity | mg/l  | 504                | 448.23                                                                              | None                                |
|                      | Sulfate                | mg/l  | 59.2               | 46.29                                                                               | 250                                 |
| MW-16                | Boron                  | mg/l  | 11                 | 0.10385                                                                             | 6                                   |
|                      | Calcium                | mg/l  | 236                | 120.75                                                                              | None                                |
|                      | Iron                   | mg/l  | 2.17               | 2.60535                                                                             | 0.3                                 |
|                      | Lithium                | mg/l  | 0.5                | 0.00931                                                                             | 0.014                               |
|                      | Magnesium              | mg/l  | 109                | 35.09                                                                               | None                                |
|                      | Manganese              | mg/l  | 0.686              | 0.45009                                                                             | 0.3/0.05                            |
|                      | Potassium              | mg/l  | 6.98               | 1.48276                                                                             | None                                |
|                      | Sodium                 | mg/l  | 179                | 18.50                                                                               | 20                                  |
|                      | Sulfate                | mg/l  | 243                | 46.29                                                                               | 250                                 |
|                      | Chloride               | mg/l  | 135                | 4.38                                                                                | 14.3087                             |
|                      | TSS                    | mg/l  | 19.7               | 12.82                                                                               | None                                |
|                      | Bicarbonate Alkalinity | mg/l  | 939                | 448.23                                                                              | None                                |
| MW-17                | Arsenic                | mg/l  | 0.00243            | 0.00166                                                                             | 0.01                                |
|                      | Boron                  | mg/l  | 0.863              | 0.10385                                                                             | 6                                   |
|                      | Calcium                | mg/l  | 129                | 120.75                                                                              | None                                |
|                      | Iron                   | mg/l  | 7.07               | 2.60535                                                                             | 0.3                                 |
|                      | Magnesium              | mg/l  | 51.8               | 35.09                                                                               | None                                |
|                      | Manganese              | mg/l  | 0.851              | 0.45009                                                                             | 0.3/0.05                            |
|                      | Potassium              | mg/l  | 1.67               | 1.48276                                                                             | None                                |
|                      | Chloride               | mg/l  | 14.2               | 4.38                                                                                | 250                                 |
|                      | Sulfate                | mg/l  | 69.7               | 46.29                                                                               | 250                                 |
|                      | TSS                    | mg/l  | 23.5               | 12.82                                                                               | None                                |
|                      | Bicarbonate Alkalinity | mg/l  | 480                | 448.23                                                                              | None                                |

**Table 7**  
**Summary of Ongoing and Newly Identified Control Limit Exceedances 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well  | Constituent | Units | Most recent result | Background Standard<br>(MW-2 equals MW-4; MW-3<br>is remaining Well<br>comparisons) | Action Level/ Statewide<br>Standard |
|-------|-------------|-------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------|
| MW-18 | Arsenic     | mg/l  | 0.0128             | 0.00166                                                                             | 0.01                                |
|       | Barium      | mg/l  | 0.352              | 0.24139                                                                             | 2                                   |
|       | Boron       | mg/l  | 0.908              | 0.10385                                                                             | 6                                   |
|       | Iron        | mg/l  | 14.6               | 2.60535                                                                             | 0.3                                 |
|       | Lithium     | mg/l  | 0.0444             | 0.00931                                                                             | 0.014                               |
|       | Manganese   | mg/l  | 0.399              | 0.45009                                                                             | 0.3 / 0.05                          |
|       | Sulfate     | mg/l  | 63.6               | 46.29083                                                                            | 250                                 |
|       | TSS         | mg/l  | 33                 | 12.82                                                                               | None                                |
|       | Chloride    | mg/l  | 13.20              | 4.38                                                                                | 250                                 |

**Table 8**  
**Analytical Data Summary (2016-2025) 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Constituent (CAS #)                           | Sample Date           | Units | MW-2          | MW-4            | MW-3          | MW-5           | MW-10         | MW-15           | MW-16           | MW-17          | MW-18           |
|-----------------------------------------------|-----------------------|-------|---------------|-----------------|---------------|----------------|---------------|-----------------|-----------------|----------------|-----------------|
|                                               |                       |       | BG/UG         | DG              | BG/UG         | DG             | DG            | DG              | DG              | DG             | DG              |
| Arsenic (Total) (7440-38-2);<br>MCL = 0.01    | 9/27-29/2016          | mg/l  | < 0.000672    | <b>0.00143</b>  | < 0.000672    | < 0.000672     | < 0.000672    | < 0.000672      | < 0.000672      | <b>0.00302</b> | <b>0.00328</b>  |
|                                               | 5/22-23/2017          | mg/l  | < 0.000505    | <b>0.000863</b> | < 0.000505    | < 0.000505     | < 0.000505    | < 0.000505      | <b>0.000662</b> | <b>0.00261</b> | <b>0.00306</b>  |
|                                               | 8/29/2018 & 9/28/2018 | mg/l  | < 0.00057     | <b>0.00106</b>  | < 0.000570    | < 0.000570     | < 0.000570    | <b>0.000708</b> | <b>0.00582</b>  | <b>0.00305</b> | < 0.000570      |
|                                               | 6/25-26/2019          | mg/l  | < 0.00075     | <b>0.00116</b>  | < 0.000750    | < 0.000750     | < 0.000750    | < 0.000750      | < 0.000750      | <b>0.00287</b> | <b>0.0287</b>   |
|                                               | 9/21-22/2020          | mg/l  | < 0.00088     | < 0.000880      | < 0.000880    | <b>0.00389</b> | < 0.000880    | < 0.000880      | < 0.000880      | <b>0.00285</b> | <b>0.0178</b>   |
|                                               | 4/29-30/2021          | mg/l  | < 0.00075     | < 0.000750      | < 0.000750    | < 0.000750     | < 0.000750    | < 0.000750      | < 0.000750      | <b>0.00196</b> | <b>0.0151</b>   |
|                                               | 9/20-21/2022          | mg/l  | < 0.00075     | <b>0.000841</b> | < 0.000750    | Dry            | < 0.000750    | < 0.000750      | <b>0.00111</b>  | <b>0.00261</b> | <b>0.0238</b>   |
|                                               | 4/3-5/2023            | mg/l  | < 0.00200     | < 0.00200       | < 0.00200     | < 0.00200      | < 0.00200     | < 0.00200       | <b>0.00428</b>  | <b>0.00298</b> | <b>0.0198</b>   |
|                                               | 9/9-10/2024           | mg/l  | < 0.00200     | <b>0.00206</b>  | < 0.00200     | Dry            | < 0.00800     | < 0.00200       | < 0.008         | <b>0.00380</b> | <b>0.0211</b>   |
| Barium (Total) (7440-39-3);<br>MCL = 2        | 4/14-15/2025          | mg/l  | < 0.00200     | < 0.00200       | < 0.00200     | Dry            | < 0.00200     | < 0.00200       | < 0.00200       | <b>0.00243</b> | <b>0.0128</b>   |
|                                               | 9/27-29/2016          | mg/l  | <b>0.0342</b> | <b>0.0844</b>   | <b>0.195</b>  | <b>0.262</b>   | <b>0.0307</b> | <b>0.165</b>    | <b>0.0677</b>   | <b>0.0619</b>  | <b>0.148</b>    |
|                                               | 5/22-23/2017          | mg/l  | <b>0.0335</b> | <b>0.0712</b>   | <b>0.204</b>  | <b>0.254</b>   | <b>0.0344</b> | <b>0.147</b>    | <b>0.0581</b>   | <b>0.0675</b>  | <b>0.15</b>     |
|                                               | 8/29/2018 & 9/28/2018 | mg/l  | <b>0.0366</b> | <b>0.0936</b>   | <b>0.22</b>   | <b>0.243</b>   | <b>0.0355</b> | <b>0.165</b>    | <b>0.174</b>    | <b>0.0654</b>  | <b>0.0715</b>   |
|                                               | 6/25-26/2019          | mg/l  | <b>0.0363</b> | <b>0.125</b>    | <b>0.227</b>  | <b>0.221</b>   | <b>0.0312</b> | <b>0.125</b>    | <b>0.034</b>    | <b>0.0643</b>  | <b>1.67</b>     |
|                                               | 9/21-22/2020          | mg/l  | <b>0.0341</b> | <b>0.078</b>    | <b>0.202</b>  | <b>0.267</b>   | <b>0.0387</b> | <b>0.148</b>    | <b>0.0375</b>   | <b>0.0649</b>  | <b>1.06</b>     |
|                                               | 4/29-30/2021          | mg/l  | <b>0.0346</b> | <b>0.0693</b>   | <b>0.217</b>  | <b>0.231</b>   | <b>0.0364</b> | <b>0.135</b>    | <b>0.0422</b>   | <b>0.0479</b>  | <b>0.67</b>     |
|                                               | 9/20-21/2022          | mg/l  | <b>0.0311</b> | <b>0.071</b>    | <b>0.189</b>  | Dry            | <b>0.0341</b> | <b>0.134</b>    | <b>0.0512</b>   | <b>0.0484</b>  | <b>0.489</b>    |
|                                               | 4/3-5/2023            | mg/l  | <b>0.0392</b> | <b>0.0963</b>   | <b>0.230</b>  | <b>0.261</b>   | <b>0.0391</b> | <b>0.116</b>    | <b>0.0870</b>   | <b>0.0607</b>  | <b>0.543</b>    |
| Beryllium (Total) (7440-41-7);<br>MCL = 0.004 | 9/9-10/2024           | mg/l  | <b>0.038</b>  | <b>0.146</b>    | <b>0.223</b>  | Dry            | <b>0.035</b>  | <b>0.147</b>    | <b>0.0639</b>   | <b>0.055</b>   | <b>1.03</b>     |
|                                               | 4/14-15/2025          | mg/l  | <b>0.0361</b> | <b>0.147</b>    | <b>0.206</b>  | Dry            | <b>0.0314</b> | <b>0.134</b>    | <b>0.0557</b>   | <b>0.0591</b>  | <b>0.352</b>    |
|                                               | 9/27-29/2016          | mg/l  | < 0.000221    | < 0.000221      | < 0.000221    | < 0.000221     | < 0.000221    | < 0.000221      | <b>0.000227</b> | < 0.000221     | <b>0.000241</b> |
|                                               | 5/22-23/2017          | mg/l  | < 0.000125    | < 0.000125      | < 0.000125    | < 0.000125     | < 0.000125    | < 0.000125      | < 0.000125      | < 0.000125     | < 0.000125      |
|                                               | 8/29/2018 & 9/28/2018 | mg/l  | < 0.00019     | < 0.000190      | < 0.000190    | < 0.000190     | < 0.000190    | < 0.000190      | < 0.000190      | < 0.000190     | < 0.000190      |
|                                               | 6/25-26/2019          | mg/l  | < 0.00027     | < 0.000270      | < 0.000270    | < 0.000270     | < 0.000270    | < 0.000270      | < 0.000270      | < 0.000270     | < 0.000270      |
|                                               | 9/21-22/2020          | mg/l  | < 0.00027     | < 0.000270      | < 0.000270    | < 0.000270     | < 0.000270    | < 0.000270      | < 0.000270      | < 0.000270     | < 0.000270      |
|                                               | 4/29-30/2021          | mg/l  | < 0.00027     | < 0.000270      | < 0.000270    | < 0.000270     | < 0.000270    | < 0.000270      | < 0.000270      | < 0.000270     | < 0.000270      |
|                                               | 9/20-21/2022          | mg/l  | < 0.00027     | < 0.000270      | < 0.000270    | Dry            | < 0.000270    | < 0.000270      | < 0.000270      | < 0.000270     | < 0.000270      |
| Boron (7440-42-8);<br>HAL = 6                 | 4/3-5/2023            | mg/l  | < 0.00110     | < 0.00100       | < 0.00100     | < 0.00100      | < 0.00100     | < 0.00100       | < 0.00100       | < 0.00100      | < 0.00100       |
|                                               | 9/9-10/2024           | mg/l  | < 0.00100     | < 0.001000      | < 0.001000    | < 0.001000     | < 0.004000    | < 0.001000      | < 0.004000      | < 0.001000     | < 0.001000      |
|                                               | 4/14-15/2025          | mg/l  | < 0.00100     | < 0.001000      | < 0.001000    | Dry            | < 0.001000    | < 0.001000      | < 0.001000      | < 0.001000     | < 0.001000      |
|                                               | 9/27-29/2016          | mg/l  | < 0.0434      | <b>0.172</b>    | <b>0.069</b>  | <b>5.86</b>    | <b>8.69</b>   | <b>6.01</b>     | <b>4.33</b>     | <b>1.35</b>    | <b>0.766</b>    |
|                                               | 5/22-23/2017          | mg/l  | < 0.104       | <b>0.116</b>    | < 0.104       | <b>4.8</b>     | <b>7.21</b>   | <b>4.9</b>      | <b>7.81</b>     | <b>1.24</b>    | <b>1.09</b>     |
|                                               | 8/29/2018 & 9/28/2018 | mg/l  | < 0.100       | < 0.100         | <b>0.125</b>  | <b>4.6</b>     | <b>7.81</b>   | <b>4.57</b>     | < 0.100         | <b>0.492</b>   | <b>3.4</b>      |
|                                               | 6/25-26/2019          | mg/l  | < 0.110       | <b>0.321</b>    | < 0.110       | <b>3.96</b>    | <b>3.51</b>   | <b>3.24</b>     | <b>3.12</b>     | <b>0.763</b>   | <b>0.391</b>    |
|                                               | 9/21-22/2020          | mg/l  | < 0.0800      | <b>0.1</b>      | < 0.0800      | <b>4.33</b>    | <b>6.05</b>   | <b>4.15</b>     | <b>4.54</b>     | <b>0.947</b>   | <b>1.27</b>     |
|                                               | 4/29-30/2021          | mg/l  | < 0.0580      | <b>0.0828</b>   | < 0.0580      | <b>4.57</b>    | <b>4.61</b>   | <b>3.39</b>     | <b>4.41</b>     | <b>0.285</b>   | <b>0.202</b>    |
| Boron (7440-42-8);<br>HAL = 6                 | 9/20-21/2022          | mg/l  | < 0.0580      | <b>0.0805</b>   | <b>0.0816</b> | Dry            | <b>5.44</b>   | <b>4.12</b>     | <b>7.35</b>     | <b>0.877</b>   | <b>0.92</b>     |
|                                               | 4/3-5/2023            | mg/l  | < 0.100       | < 0.100         | < 0.100       | <b>5.14</b>    | <b>4.77</b>   | <b>2.46</b>     | <b>7.12</b>     | <b>0.833</b>   | <b>0.126</b>    |
|                                               | 9/9-10/2024           | mg/l  | < 0.100       | <b>0.154</b>    | < 0.100       | Dry            | <b>5.56</b>   | <b>3.30</b>     | <b>9.90</b>     | <b>0.611</b>   | <b>0.625</b>    |
|                                               | 4/14-15/2025          | mg/l  | <b>0.211</b>  | <b>0.244</b>    | < 0.100       | Dry            | <b>6.21</b>   | <b>3.51</b>     | <b>11.00</b>    | <b>0.863</b>   | <b>0.908</b>    |

Table 8  
Analytical Data Summary (2016-2025) 2025 Annual Water Quality Report  
Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C

| Constituent (CAS #)                             | Sample Date           | Units | MW-2       | MW-4       | MW-3       | MW-5       | MW-10       | MW-15      | MW-16      | MW-17      | MW-18      |
|-------------------------------------------------|-----------------------|-------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|
|                                                 |                       |       | BG/UG      | DG         | BG/UG      | DG         | DG          | DG         | DG         | DG         | DG         |
| Calcium (7440-70-2)<br>MCL = N/A                | 9/27-29/2016          | mg/l  | 73.1       | 77.6       | 104        | 132        | 379         | 146        | 195        | 113        | 123        |
|                                                 | 5/22-23/2017          | mg/l  | 71.1       | 65.9       | 97.5       | 131        | 354         | 122        | 241        | 116        | 109        |
|                                                 | 8/29/2018 & 9/28/2018 | mg/l  | 74.7       | 88.8       | 102        | 135        | 459         | 115        | 69.7       | 103        | 200        |
|                                                 | 6/25-26/2019          | mg/l  | 79.3       | 107        | 118        | 133        | 247         | 122        | 215        | 133        | 110        |
|                                                 | 9/21-22/2020          | mg/l  | 70.5       | 56.5       | 99.2       | 127        | 378         | 125        | 204        | 122        | 97         |
|                                                 | 4/29-30/2021          | mg/l  | 71.2       | 55.6       | 99.5       | 126        | 338         | 113        | 232        | 116        | 82.2       |
|                                                 | 9/20-21/2022          | mg/l  | 72.7       | 59         | 106        | Dry        | 338         | 122        | 245        | 119        | 102        |
|                                                 | 4/3-5/2023            | mg/l  | 76.0       | 69.0       | 105        | 145        | 350         | 102        | 247        | 120        | 76.6       |
|                                                 | 9/9-10/2024           | mg/l  | 85.7       | 106.0      | 118.0      | Dry        | 409         | 127.0      | 264.0      | 133.0      | 122.0      |
|                                                 | 4/14-15/2025          | mg/l  | 77.8       | 110.0      | 108.0      | Dry        | 361         | 113.0      | 236.0      | 129.0      | 118.0      |
| Cobalt (Total) (7440-48-4);<br>PGW SWS = 0.0021 | 9/27-29/2016          | mg/l  | 0.000102   | 0.0152     | 0.000663   | 0.00369    | 0.000273    | 0.00174    | 0.00301    | 0.00181    | 0.00212    |
|                                                 | 5/22-23/2017          | mg/l  | 0.0000740  | 0.00953    | 0.000757   | 0.00238    | 0.000249    | 0.00104    | 0.00272    | 0.00209    | 0.000663   |
|                                                 | 8/29/2018 & 9/28/2018 | mg/l  | 0.000356   | 0.00902    | 0.000801   | 0.00156    | 0.000416    | 0.00154    | 0.000329   | 0.00259    | 0.000833   |
|                                                 | 6/25-26/2019          | mg/l  | < 0.000091 | 0.00885    | 0.00067    | 0.00143    | < 0.0000910 | 0.00051    | 0.000954   | 0.00322    | 0.00108    |
|                                                 | 9/21-22/2020          | mg/l  | 0.000348   | 0.00297    | 0.000584   | 0.00452    | 0.000364    | 0.00103    | 0.00122    | 0.00269    | 0.000523   |
|                                                 | 4/29-30/2021          | mg/l  | < 0.000091 | 0.00298    | 0.000594   | 0.00175    | 0.000119    | 0.000651   | 0.0011     | 0.00392    | 0.000451   |
|                                                 | 9/20-21/2022          | mg/l  | 0.000257   | 0.00451    | 0.00552    | Dry        | 0.000559    | 0.00116    | 0.00287    | 0.00294    | 0.000461   |
|                                                 | 4/3-5/2023            | mg/l  | 0.00134    | 0.00553    | 0.000855   | 0.00167    | 0.000543    | 0.000620   | 0.00392    | 0.00237    | < 0.000500 |
|                                                 | 9/9-10/2024           | mg/l  | < 0.000500 | 0.00772    | 0.000598   | Dry        | < 0.000500  | 0.000981   | 0.00217    | 0.00447    | < 0.000500 |
|                                                 | 4/14-15/2025          | mg/l  | < 0.000500 | 0.00588    | 0.000604   | Dry        | < 0.000500  | 0.000934   | 0.00172    | 0.00203    | < 0.000500 |
| Copper (Total) (7440-50-8);<br>MCL AL = 1.3     | 9/27-29/2016          | mg/l  | < 0.00122  | < 0.00122  | < 0.00122  | 0.00402    | < 0.00122   | 0.00159    | 0.00193    | < 0.00122  | 0.00252    |
|                                                 | 5/22-23/2017          | mg/l  | < 0.00219  | < 0.00219  | < 0.00219  | 0.00303    | < 0.00219   | < 0.00219  | < 0.00219  | < 0.00219  | < 0.00219  |
|                                                 | 8/29/2018 & 9/28/2018 | mg/l  | < 0.00160  | < 0.00160  | < 0.00160  | 0.00285    | < 0.00160   | < 0.00160  | < 0.00160  | < 0.00160  | < 0.00160  |
|                                                 | 6/25-26/2019          | mg/l  | < 0.00200  | < 0.00200  | < 0.00200  | 0.00254    | < 0.00200   | < 0.00200  | < 0.00200  | < 0.00200  | < 0.00200  |
|                                                 | 9/21-22/2020          | mg/l  | 0.00153    | < 0.00150  | < 0.00150  | < 0.00150  | < 0.00150   | < 0.00150  | < 0.00150  | < 0.00150  | < 0.00150  |
|                                                 | 4/29-30/2021          | mg/l  | < 0.00140  | < 0.00140  | < 0.00140  | 0.00283    | < 0.00140   | < 0.00140  | < 0.00140  | < 0.00140  | < 0.00140  |
|                                                 | 9/20-21/2022          | mg/l  | < 0.0018   | < 0.00180  | < 0.00180  | Dry        | < 0.00180   | < 0.00180  | < 0.00180  | < 0.00180  | < 0.00180  |
|                                                 | 4/3-5/2023            | mg/l  | < 0.00500  | < 0.00500  | < 0.00500  | < 0.00500  | < 0.00500   | < 0.00500  | 0.00590    | < 0.00500  | < 0.00500  |
|                                                 | 9/9-10/2024           | mg/l  | < 0.00500  | < 0.00500  | < 0.00500  | Dry        | < 0.02000   | < 0.00500  | < 0.02000  | < 0.00500  | < 0.00500  |
|                                                 | 4/14-15/2025          | mg/l  | < 0.00500  | < 0.00500  | < 0.00500  | Dry        | < 0.00500   | < 0.00500  | < 0.00500  | < 0.00500  | < 0.00500  |
| Iron (Total) (7439-89-6);<br>SDWR = 0.3         | 9/27-29/2016          | mg/l  | 0.0611     | 25.4       | 1.83       | 0.48       | 0.106       | 0.41       | 1.67       | 4.02       | 9.66       |
|                                                 | 5/22-23/2017          | mg/l  | 0.0553     | 15.7       | 1.79       | 0.31       | 0.0712      | 0.295      | 3.03       | 6.74       | 5.18       |
|                                                 | 8/29/2018 & 9/28/2018 | mg/l  | 0.138      | 9.9        | 2.15       | 0.16       | < 0.0660    | 0.204      | 4.27       | 0.765      | 0.146      |
|                                                 | 6/25-26/2019          | mg/l  | < 0.0660   | 11.5       | 2.42       | 0.143      | < 0.0660    | 0.2        | 0.661      | 1.76       | 44.7       |
|                                                 | 9/21-22/2020          | mg/l  | 0.399      | 2.95       | 2.21       | 3.47       | < 0.0500    | 0.0948     | 1.38       | 7.73       | 25.2       |
|                                                 | 4/29-30/2021          | mg/l  | 0.0466     | 2.51       | 2.34       | 0.191      | 0.0442      | 0.0635     | 1.08       | 0.725      | 21.3       |
|                                                 | 9/20-21/2022          | mg/l  | 0.0514     | 3.28       | 2.38       | Dry        | 0.0602      | 0.155      | 2.92       | 4.37       | 25.2       |
|                                                 | 4/3-5/2023            | mg/l  | 0.597      | 4.72       | 2.08       | 0.254      | 0.907       | 0.424      | 13.8       | 3.11       | 22.3       |
|                                                 | 9/9-10/2024           | mg/l  | < 0.100    | 11.00      | 2.20       | Dry        | < 0.400     | 0.117      | 1.60       | 12.10      | 24.40      |
|                                                 | 4/14-15/2025          | mg/l  | < 0.100    | 7.17       | 2.30       | Dry        | 0.139       | 0.134      | 2.17       | 7.07       | 14.60      |
| Lead (Total) (7439-92-1);<br>MCL AL = 0.015     | 9/27-29/2016          | mg/l  | < 0.000211 | < 0.000211 | < 0.000211 | 0.000637   | < 0.000211  | 0.000515   | 0.00232    | 0.000455   | 0.00247    |
|                                                 | 5/22-23/2017          | mg/l  | < 0.000324 | < 0.000324 | < 0.000324 | < 0.000324 | < 0.000324  | < 0.000324 | 0.00138    | 0.000433   | 0.000595   |
|                                                 | 8/29/2018 & 9/28/2018 | mg/l  | < 0.000250 | < 0.000250 | 0.000364   | 0.000256   | < 0.000250  | 0.000264   | < 0.000250 | < 0.000250 | < 0.000250 |
|                                                 | 6/25-26/2019          | mg/l  | < 0.000270 | < 0.000270 | < 0.000270 | < 0.000270 | < 0.000270  | < 0.000270 | 0.00033    | < 0.000270 | 0.00155    |
|                                                 | 9/21-22/2020          | mg/l  | 0.000595   | < 0.000110 | 0.000136   | 0.000476   | < 0.000110  | 0.000116   | 0.000422   | 0.000517   | 0.000343   |
|                                                 | 4/29-30/2021          | mg/l  | < 0.000210 | < 0.000210 | < 0.000210 | 0.000294   | < 0.000210  | < 0.000210 | 0.000314   | < 0.000210 | 0.000259   |
|                                                 | 9/20-21/2022          | mg/l  | < 0.000240 | < 0.000240 | < 0.000240 | Dry        | < 0.000240  | < 0.000240 | 0.000879   | 0.00038    | < 0.000240 |
|                                                 | 4/3-5/2023            | mg/l  | < 0.000500 | < 0.000500 | < 0.000500 | < 0.000500 | < 0.000500  | < 0.000500 | 0.00223    | 0.000500   | < 0.000500 |
|                                                 | 9/9-10/2024           | mg/l  | < 0.000500 | < 0.000500 | < 0.000500 | Dry        | < 0.000500  | < 0.000500 | < 0.000500 | 0.000954   | < 0.000500 |
|                                                 | 4/14-15/2025          | mg/l  | < 0.000500 | < 0.000500 | < 0.000500 | Dry        | < 0.000500  | < 0.000500 | < 0.000500 | < 0.000500 | < 0.000500 |

**Table 8**  
**Analytical Data Summary (2016-2025) 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Constituent (CAS #)                                  | Sample Date           | Units | MW-2      | MW-4      | MW-3      | MW-5   | MW-10  | MW-15  | MW-16     | MW-17     | MW-18    |
|------------------------------------------------------|-----------------------|-------|-----------|-----------|-----------|--------|--------|--------|-----------|-----------|----------|
|                                                      |                       |       | BG/UG     | DG        | BG/UG     | DG     | DG     | DG     | DG        | DG        | DG       |
| Lithium (7439-93-2);<br>PGW SWS = 0.014              | 9/27-29/2016          | mg/l  | < 0.00655 | < 0.00655 | < 0.00655 | 0.0769 | 0.385  | 0.0169 | 0.194     | < 0.00655 | 0.048    |
|                                                      | 5/22-23/2017          | mg/l  | 0.00452   | 0.00265   | 0.00441   | 0.0786 | 0.324  | 0.0125 | 0.292     | 0.00537   | 0.0392   |
|                                                      | 8/29/2018 & 9/28/2018 | mg/l  | 0.00394   | < 0.00280 | 0.00412   | 0.0744 | 0.29   | 0.0111 | < 0.00280 | 0.00494   | 0.127    |
|                                                      | 6/25-26/2019          | mg/l  | 0.00656   | 0.00384   | 0.00557   | 0.0631 | 0.159  | 0.016  | 0.141     | 0.00715   | 0.0111   |
|                                                      | 9/21-22/2020          | mg/l  | 0.00691   | < 0.00250 | 0.00424   | 0.0635 | 0.28   | 0.0122 | 0.184     | 0.00539   | 0.0339   |
|                                                      | 4/29-30/2021          | mg/l  | 0.00532   | 0.00325   | 0.00507   | 0.0794 | 0.203  | 0.0143 | 0.181     | 0.0072    | 0.00525  |
|                                                      | 9/20-21/2022          | mg/l  | 0.00495   | 0.00422   | 0.0057    | Dry    | 0.251  | 0.0115 | 0.331     | 0.00642   | 0.0347   |
|                                                      | 4/3-5/2023            | mg/l  | < 0.0100  | < 0.0100  | < 0.0100  | 0.0697 | 0.160  | 0.0107 | 0.296     | < 0.0100  | < 0.0100 |
|                                                      | 9/9-10/2024           | mg/l  | < 0.0100  | < 0.0100  | < 0.0100  | Dry    | 0.250  | 0.0129 | 0.495     | < 0.0100  | 0.0394   |
|                                                      | 4/14-15/2025          | mg/l  | < 0.0100  | < 0.0100  | < 0.0100  | Dry    | 0.214  | 0.0119 | 0.500     | < 0.0100  | 0.0444   |
| Magnesium(Total) (7439-95-4); MCL = N/A              | 9/27-29/2016          | mg/l  | 30.8      | 34.8      | 28.8      | 50.4   | 103    | 46     | 58.9      | 39.3      | 32.5     |
|                                                      | 5/22-23/2017          | mg/l  | 31.4      | 31.8      | 30.3      | 55.3   | 104    | 42     | 81        | 42.2      | 31       |
|                                                      | 8/29/2018 & 9/28/2018 | mg/l  | 31.2      | 40.5      | 29.9      | 49.9   | 123    | 44     | 16.2      | 36.3      | 64.3     |
|                                                      | 6/25-26/2019          | mg/l  | 36.9      | 52.3      | 35.2      | 47.5   | 66.6   | 40.2   | 73.7      | 48.5      | 24.1     |
|                                                      | 9/21-22/2020          | mg/l  | 27        | 25.2      | 28.3      | 48.2   | 105    | 38.1   | 66.5      | 41.3      | 22       |
|                                                      | 4/29-30/2021          | mg/l  | 33.2      | 27.3      | 31.6      | 51.9   | 84.8   | 39.9   | 81.9      | 39        | 18.7     |
|                                                      | 9/20-21/2022          | mg/l  | 30.2      | 26.5      | 30.5      | Dry    | 111    | 39.7   | 85.4      | 41.4      | 25.2     |
|                                                      | 4/3-5/2023            | mg/l  | 34.4      | 33.4      | 32.8      | 56.7   | 102    | 35.5   | 89.2      | 44.7      | 17.1     |
|                                                      | 9/9-10/2024           | mg/l  | 33.2      | 44.7      | 30.6      | Dry    | 99.4   | 38.7   | 95.0      | 44.9      | 28.7     |
|                                                      | 4/14-15/2025          | mg/l  | 32.7      | 50.9      | 31.5      | Dry    | 106.0  | 39.1   | 109.0     | 51.8      | 32.2     |
| Manganese(Total) (7439-96-5); HAL = 0.3; SDWR = 0.05 | 9/27-29/2016          | mg/l  | 0.0263    | 1.13      | 0.333     | 1.62   | 0.146  | 0.467  | 0.878     | 0.695     | 0.886    |
|                                                      | 5/22-23/2017          | mg/l  | 0.0559    | 0.846     | 0.417     | 0.662  | 0.125  | 0.15   | 0.839     | 0.799     | 0.529    |
|                                                      | 8/29/2018 & 9/28/2018 | mg/l  | 0.147     | 0.533     | 0.353     | 0.224  | 0.202  | 0.527  | 0.72      | 0.775     | 0.709    |
|                                                      | 6/25-26/2019          | mg/l  | 0.0205    | 0.714     | 0.387     | 0.316  | 0.0104 | 0.104  | 0.635     | 0.735     | 1.3      |
|                                                      | 9/21-22/2020          | mg/l  | 0.138     | 0.386     | 0.365     | 2.1    | 0.144  | 0.116  | 0.608     | 0.922     | 0.67     |
|                                                      | 4/29-30/2021          | mg/l  | 0.0668    | 0.277     | 0.444     | 0.247  | 0.0698 | 0.235  | 0.764     | 0.72      | 0.6      |
|                                                      | 9/20-21/2022          | mg/l  | 0.182     | 0.335     | 0.343     | Dry    | 0.0912 | 0.195  | 0.739     | 0.835     | 0.517    |
|                                                      | 4/3-5/2023            | mg/l  | 0.179     | 0.365     | 0.376     | 0.128  | 0.120  | 0.291  | 0.855     | 0.721     | 0.496    |
|                                                      | 9/9-10/2024           | mg/l  | 0.0966    | 0.635     | 0.326     | Dry    | 0.0771 | 0.301  | 0.817     | 1.19      | 0.560    |
|                                                      | 4/14-15/2025          | mg/l  | 0.0935    | 0.514     | 0.366     | Dry    | 0.0786 | 0.294  | 0.686     | 0.851     | 0.399    |

**Table 8**  
**Analytical Data Summary (2016-2025) 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Constituent (CAS #)                                | Sample Date           | Units | MW-2       | MW-4       | MW-3       | MW-5       | MW-10      | MW-15      | MW-16      | MW-17      | MW-18      |
|----------------------------------------------------|-----------------------|-------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                                                    |                       |       | BG/UG      | DG         | BG/UG      | DG         | DG         | DG         | DG         | DG         | DG         |
| Potassium (7440-09-7);<br>MCL = N/A                | 9/27-29/2016          | mg/l  | 0.373      | 1.49       | 1.36       | 17.9       | 4.92       | 1.92       | 4.45       | 1.76       | 0.893      |
|                                                    | 5/22-23/2017          | mg/l  | 0.414      | 1.11       | 1.28       | 16.8       | 5.19       | 1.76       | 5.19       | 1.95       | 0.876      |
|                                                    | 8/29/2018 & 9/28/2018 | mg/l  | 0.482      | 1.49       | 1.38       | 15.9       | 5.48       | 1.99       | 0.702      | 1.8        | 3.21       |
|                                                    | 6/25-26/2019          | mg/l  | 0.488      | 1.69       | 1.49       | 11.1       | 4.38       | 1.38       | 4.67       | 1.84       | 0.711      |
|                                                    | 9/21-22/2020          | mg/l  | 0.53       | 1.15       | 1.3        | 16.4       | 12.8       | 1.73       | 5.33       | 1.66       | 0.785      |
|                                                    | 4/29-30/2021          | mg/l  | 0.425      | 1.16       | 1.35       | 14.1       | 8.5        | 1.6        | 5.38       | 1.66       | 0.659      |
|                                                    | 9/20-21/2022          | mg/l  | 0.495      | 1.12       | 1.35       | Dry        | 13.1       | 1.78       | 5.23       | 1.62       | 0.788      |
|                                                    | 4/3-5/2023            | mg/l  | < 0.500    | 1.17       | 1.40       | 16.5       | 7.59       | 1.42       | 5.46       | 1.90       | 0.609      |
|                                                    | 9/9-10/2024           | mg/l  | < 0.500    | 1.58       | 1.32       | Dry        | 10.30      | 1.93       | 6.77       | 1.56       | 0.727      |
|                                                    | 4/14-15/2025          | mg/l  | < 0.500    | 1.53       | 1.31       | Dry        | 12.50      | 1.91       | 6.98       | 1.67       | 0.834      |
| Zinc (Total) (7440-66-6);<br>HAL & SS PGW = 2      | 9/27-29/2016          | mg/l  | 0.00649    | < 0.00521  | < 0.00521  | < 0.00521  | < 0.00521  | < 0.00521  | < 0.00521  | < 0.00521  | 0.00739    |
|                                                    | 5/22-23/2017          | mg/l  | < 0.0115   | < 0.0115   | < 0.0115   | < 0.0115   | < 0.0115   | < 0.0115   | < 0.0115   | < 0.0115   | < 0.0115   |
|                                                    | 8/29/2018 & 9/28/2018 | mg/l  | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   |
|                                                    | 6/25-26/2019          | mg/l  | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   |
|                                                    | 9/21-22/2020          | mg/l  | 0.0225     | < 0.0100   | < 0.0100   | 0.0138     | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   |
|                                                    | 4/29-30/2021          | mg/l  | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   |
|                                                    | 9/20-21/2022          | mg/l  | < 0.0100   | < 0.0100   | < 0.0100   | Dry        | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   | < 0.0100   |
|                                                    | 4/3-5/2023            | mg/l  | < 0.0200   | < 0.0200   | < 0.0200   | < 0.0200   | < 0.0200   | < 0.0200   | < 0.0200   | < 0.0200   | < 0.0200   |
|                                                    | 9/9-10/2024           | mg/l  | < 0.0200   | < 0.0200   | < 0.0200   | Dry        | < 0.0800   | < 0.0200   | 0.0800     | < 0.0200   | < 0.0200   |
|                                                    | 4/14-15/2025          | mg/l  | < 0.0200   | < 0.0200   | < 0.0200   | Dry        | < 0.0200   | < 0.0200   | < 0.0200   | < 0.0200   | < 0.0200   |
| Sodium (7440-23-5);<br>HAL (restricted diets) = 20 | 9/27-29/2016          | mg/l  | 12         | 17.8       | 17.4       | 85.5       | 78.2       | 87.1       | 46.1       | 21.3       | 18.6       |
|                                                    | 5/22-23/2017          | mg/l  | 12.8       | 13.5       | 15.8       | 83.3       | 63.3       | 68.9       | 75.1       | 22.4       | 19.5       |
|                                                    | 8/29/2018 & 9/28/2018 | mg/l  | 13.1       | 18.3       | 16.4       | 75.3       | 60.8       | 80.7       | 11.8       | 21         | 48.7       |
|                                                    | 6/25-26/2019          | mg/l  | 11.8       | 25.7       | 18.5       | 76.2       | 26.7       | 52.1       | 34         | 17.8       | 12.7       |
|                                                    | 9/21-22/2020          | mg/l  | 12.3       | 14         | 17.1       | 75.2       | 55         | 74.4       | 57.7       | 17         | 16.7       |
|                                                    | 4/29-30/2021          | mg/l  | 12.5       | 14.1       | 16.2       | 73.6       | 47.8       | 51.6       | 64.5       | 9.16       | 10.4       |
|                                                    | 9/20-21/2022          | mg/l  | 12.2       | 15         | 16.6       | Dry        | 53.9       | 72.1       | 105        | 9.67       | 11.3       |
|                                                    | 4/3-5/2023            | mg/l  | 12.8       | 14.4       | 17.2       | 73.8       | 45.3       | 38.3       | 112        | 11.1       | 8.86       |
|                                                    | 9/9-10/2024           | mg/l  | 11.5       | 20.6       | 15.9       | Dry        | 50.7       | 59.7       | 169.0      | 8.55       | 12.3       |
|                                                    | 4/14-15/2025          | mg/l  | 11.8       | 19.4       | 16.2       | Dry        | 50.7       | 62.1       | 179.0      | 13.2       | 12.4       |
| Selenium (Total) (7782-49-2); MCL = 0.05           | 9/27-29/2016          | mg/l  | < 0.000630 | < 0.000630 | < 0.000630 | < 0.000630 | < 0.000630 | < 0.000630 | < 0.000630 | < 0.00063  | < 0.000630 |
|                                                    | 5/22-23/2017          | mg/l  | < 0.000928 | < 0.000928 | < 0.000928 | < 0.000928 | < 0.000928 | < 0.000928 | < 0.000928 | < 0.000928 | < 0.000928 |
|                                                    | 8/29/2018 & 9/28/2018 | mg/l  | < 0.000900 | < 0.000900 | < 0.000900 | < 0.000900 | < 0.000900 | < 0.000900 | < 0.000900 | < 0.000900 | < 0.000900 |
|                                                    | 6/25-26/2019          | mg/l  | 0.00139    | < 0.00100  | < 0.00100  | < 0.00100  | 0.00245    | < 0.00100  | < 0.00100  | < 0.00100  | < 0.00100  |
|                                                    | 9/21-22/2020          | mg/l  | < 0.00100  | < 0.00100  | < 0.00100  | < 0.00100  | < 0.00100  | < 0.00100  | < 0.00100  | < 0.00100  | < 0.00100  |
|                                                    | 4/29-30/2021          | mg/l  | < 0.000960 | < 0.000960 | < 0.000960 | < 0.000960 | 0.000974   | < 0.000960 | < 0.000960 | < 0.000960 | < 0.000960 |
|                                                    | 9/20-21/2022          | mg/l  | 0.00148    | 0.00189    | < 0.000960 | Dry        | 0.0015     | 0.0011     | 0.00106    | < 0.000960 | 0.00989    |
|                                                    | 4/3-5/2023            | mg/l  | < 0.005    | < 0.005    | < 0.005000 | < 0.005000 | < 0.005000 | < 0.005000 | < 0.005000 | < 0.005000 | < 0.005000 |
|                                                    | 9/9-10/2024           | mg/l  | < 0.00500  | < 0.00500  | < 0.00500  | Dry        | < 0.0200   | < 0.00500  | < 0.0200   | < 0.00500  | < 0.00500  |
|                                                    | 4/14-15/2025          | mg/l  | < 0.00500  | < 0.00500  | < 0.00500  | Dry        | < 0.00500  | < 0.00500  | < 0.00500  | < 0.00500  | < 0.00500  |
| pH (N/A); SDWR = 6.5-8.5                           | 9/27-29/2016          | SU    | 7.23       | 6.88       | 7.36       | 6.96       | 6.62       | 7.05       | 6.81       | 6.97       | 7.11       |
|                                                    | 5/22-23/2017          | SU    | 7.35       | 6.71       | 7.42       | 6.79       | 6.56       | 6.99       | 6.6        | 6.99       | 7.10       |
|                                                    | 8/29/2018 & 9/28/2018 | SU    | 6.81       | 6.15       | 6.62       | 6.22       | 6.2        | 6.51       | 6.32       | 6.78       | 6.94       |
|                                                    | 6/25-26/2019          | SU    | 7.62       | 6.9        | 7.39       | 7.15       | 7.01       | 7.18       | 7.05       | 7.36       | 7.56       |
|                                                    | 9/21-22/2020          | SU    | 7.22       | 6.46       | 6.87       | 6.44       | 6.34       | 6.72       | 6.44       | 6.88       | 7.16       |
|                                                    | 4/29-30/2021          | SU    | 7.06       | 6.64       | 6.81       | 6.56       | 6.38       | 6.73       | 6.36       | 7.05       | 7.14       |
|                                                    | 9/20-21/2022          | SU    | 7.48       | 6.83       | 7.24       | Dry        | 6.87       | 7.17       | 6.79       | 7.35       | 7.23       |
|                                                    | 4/3-5/2023            | SU    | 7.49       | 6.74       | 7.23       | 6.90       | 6.89       | 7.17       | 6.89       | 7.36       | 7.60       |
|                                                    | 9/9-10/2024           | SU    | 7.37       | 6.61       | 7.49       | Dry        | 7.00       | 7.37       | 6.64       | 7.45       | 7.10       |
|                                                    | 4/14-15/2025          | SU    | 7.90       | 6.80       | 7.16       | Dry        | 6.77       | 7.28       | 7.28       | 7.27       | 7.76       |

Table 8  
Analytical Data Summary (2016-2025) 2025 Annual Water Quality Report  
Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C

| Constituent (CAS #)                                     | Sample Date           | Units | MW-2  | MW-4  | MW-3   | MW-5 | MW-10  | MW-15 | MW-16 | MW-17 | MW-18  |
|---------------------------------------------------------|-----------------------|-------|-------|-------|--------|------|--------|-------|-------|-------|--------|
|                                                         |                       |       | BG/UG | DG    | BG/UG  | DG   | DG     | DG    | DG    | DG    | DG     |
| Bicarbonate Alkalinity<br>(STL00138); MCL = N/A         | 9/27-29/2016          | mg/l  | 257   | 296   | 385    | 587  | 602    | 597   | 528   | 405   | 370    |
|                                                         | 5/22-23/2017          | mg/l  | 268   | 278   | 397    | 587  | 608    | 551   | 736   | 438   | 397    |
|                                                         | 8/29/2018 & 9/28/2018 | mg/l  | 252   | 330   | 386    | 577  | 592    | 567   | 268   | 402   | 633    |
|                                                         | 6/25-26/2019          | mg/l  | 260   | 383   | 359    | 545  | 535    | 475   | 594   | 416   | 307    |
|                                                         | 9/21-22/2020          | mg/l  | 270   | 232   | 400    | 626  | 623    | 562   | 721   | 448   | 345    |
|                                                         | 4/29-30/2021          | mg/l  | 266   | 217   | 380    | 592  | 582    | 464   | 760   | 395   | 257    |
|                                                         | 9/20-21/2022          | mg/l  | 273   | 238   | 396    | Dry  | 581    | 528   | 792   | 431   | 326    |
|                                                         | 4/3-5/2023            | mg/l  | 300   | 275   | 442    | 722  | 660    | 482   | 986   | 472   | 301    |
|                                                         | 9/9-10/2024           | mg/l  | 269   | 339   | 327    | Dry  | 542    | 459   | 872   | 403   | 310    |
|                                                         | 4/14-15/2025          | mg/l  | 283   | 442   | 400    | Dry  | 593    | 504   | 939   | 480   | 387    |
| Chloride (16887-00-6);<br>SDWR = 250                    | 9/27-29/2016          | mg/l  | 13.5  | 10.4  | < 1.91 | 22.4 | 36     | 29.8  | 27    | 19.8  | 13     |
|                                                         | 5/22-23/2017          | mg/l  | 12.9  | 12.8  | 1.89   | 17.2 | 32.4   | 19.7  | 84.3  | 18.4  | 12.7   |
|                                                         | 8/29/2018 & 9/28/2018 | mg/l  | 10.6  | 10.9  | < 1.60 | 14.4 | 27.9   | 18.1  | 4.34  | 11.8  | 40.3   |
|                                                         | 6/25-26/2019          | mg/l  | 9.96  | 14.5  | 1.68   | 11.2 | 9.44   | 8.81  | 33.4  | 12.3  | 8.81   |
|                                                         | 9/21-22/2020          | mg/l  | 11.4  | 7.65  | < 2.00 | 20.5 | 21.7   | 17.5  | 68.3  | 13.3  | 4.2    |
|                                                         | 4/29-30/2021          | mg/l  | 10.7  | 8.21  | < 2.15 | 17.5 | 14.8   | 12    | 95.6  | 6.2   | 3.84   |
|                                                         | 9/20-21/2022          | mg/l  | 21.7  | 10.8  | 2.42   | Dry  | 24.3   | 16.7  | 96.2  | 9.65  | 9.9    |
|                                                         | 4/3-5/2023            | mg/l  | 11.4  | 12.8  | < 5.00 | 29.1 | 21.9   | 8.65  | 127   | 15.3  | < 5.00 |
|                                                         | 9/9-10/2024           | mg/l  | 10.1  | 13.5  | < 5.00 | Dry  | 23.0   | 13.8  | 159   | 9.4   | 10.8   |
|                                                         | 4/14-15/2025          | mg/l  | 11.0  | 12.8  | < 2.00 | Dry  | 25.7   | 12.2  | 135   | 14.2  | 13.20  |
| Sulfate (14808-79-8);<br>SDWR = 250                     | 9/27-29/2016          | mg/l  | 36.3  | 53.3  | 26.8   | 101  | 808    | 64.6  | 211   | 56.3  | 48.5   |
|                                                         | 5/22-23/2017          | mg/l  | 45.3  | 62.4  | 34.5   | 106  | 1630   | 61.7  | 266   | 58    | 45.9   |
|                                                         | 8/29/2018 & 9/28/2018 | mg/l  | 48.1  | 80.4  | 32.2   | 106  | 927    | 75.9  | 5.48  | 64.9  | 205    |
|                                                         | 6/25-26/2019          | mg/l  | 38.8  | 90.7  | 40.8   | 101  | 328    | 42.5  | 184   | 83.2  | 28.7   |
|                                                         | 9/21-22/2020          | mg/l  | 44.2  | 56.8  | 40     | 114  | 861    | 70.8  | 191   | 84.1  | 19.3   |
|                                                         | 4/29-30/2021          | mg/l  | 39.8  | 60.5  | 39.2   | 101  | 684    | 43.6  | 182   | 57.5  | 7.41   |
|                                                         | 9/20-21/2022          | mg/l  | 47.7  | 55.2  | 42.8   | Dry  | 898    | 75.9  | 221   | 77.7  | 32.6   |
|                                                         | 4/3-5/2023            | mg/l  | 41.5  | 80.1  | 31.4   | 101  | 795    | 34.0  | 207   | 70.9  | < 5.00 |
|                                                         | 9/9-10/2024           | mg/l  | 39.8  | 78.5  | 34.6   | Dry  | 876    | 62.7  | 224   | 62.3  | 46.2   |
|                                                         | 4/14-15/2025          | mg/l  | 43.5  | 66.0  | 38.8   | Dry  | 803    | 59.2  | 243   | 69.7  | 63.6   |
| Total Suspended Solids<br>(TSS) (STL00161) MCL =<br>N/A | 9/27-29/2016          | mg/l  | 5.75  | 28.9  | 7      | 38   | 7.62   | 37.4  | 199   | 21.6  | 179    |
|                                                         | 5/22-23/2017          | mg/l  | 4.13  | 27.3  | 10.4   | 20.4 | 4      | 14.1  | 164   | 58    | 65     |
|                                                         | 8/29/2018 & 9/28/2018 | mg/l  | 4.62  | 18.1  | 11.3   | 14.4 | 2.63   | 17.8  | 10    | 3.13  | 12.1   |
|                                                         | 6/25-26/2019          | mg/l  | 4.13  | 14    | 6.63   | 9.12 | 3.13   | 3.63  | 56.3  | 5.25  | 160    |
|                                                         | 9/21-22/2020          | mg/l  | 27.5  | 5.75  | 9.5    | 17.5 | 3.38   | 8.13  | 38.7  | 95.1  | 317    |
|                                                         | 4/29-30/2021          | mg/l  | 1.5   | 2.63  | 11.8   | 13.6 | 3.13   | 6.75  | 27.9  | 3     | 66     |
|                                                         | 9/20-21/2022          | mg/l  | 4.75  | 2.25  | 7      | Dry  | 12.8   | 6.38  | 104   | 43.5  | 104    |
|                                                         | 4/3-5/2023            | mg/l  | 4.13  | 5.88  | 8.50   | 7.50 | 5.50   | 4.00  | 86.0  | 21.3  | 70.0   |
|                                                         | 9/9-10/2024           | mg/l  | 2.38  | 11.00 | 8.88   | Dry  | < 1.88 | 11.80 | 24.6  | 85.0  | 77.0   |
|                                                         | 4/14-15/2025          | mg/l  | 2.25  | 8.25  | 10.00  | Dry  | 7.00   | 7.62  | 19.7  | 23.5  | 33.0   |

Key:  
AL = Action Level  
BG = Background  
CL = Control Limit  
DG = Downgradient  
HAL = Health Advisory Level  
MCL = Maximum Control Level  
SDWR = Secondary Drinking Water Standards SS = Iowa Statewide Standards  
UG = Upgradient  
**Bold = detected above laboratory reporting**  
**Red Bold = detected above Action Level**

**Table 9**  
**Historic Control Limit Action Level Exceedances 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well | Constituent            | Sep-2016 | May-2017 | Aug-2018 | Jun-2019 | Sep-2020 | Apr-2021 | Sep-2022 | Apr-2023 | Sep-2024 | Apr-2025 |
|------|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| MW-2 | Arsenic                |          |          |          |          |          |          |          |          |          |          |
|      | Barium                 |          |          |          |          |          |          |          |          |          |          |
|      | Beryllium              |          |          |          |          |          |          |          |          |          |          |
|      | Boron                  |          |          |          |          |          |          |          |          |          |          |
|      | Calcium                |          |          |          |          |          |          |          |          |          |          |
|      | Cobalt                 |          |          |          |          |          |          |          |          |          |          |
|      | Copper                 |          |          |          |          |          |          |          |          |          |          |
|      | Iron                   |          |          |          |          | X        |          |          | X        |          |          |
|      | Lithium                |          |          |          |          |          |          |          |          |          |          |
|      | Manganese              |          | X        | X        |          | X        | X        | X        | X        | X        | X        |
|      | Selenium               |          |          |          |          |          |          |          |          |          |          |
|      | Bicarbonate Alkalinity |          |          |          |          |          |          |          |          |          |          |
|      | Chloride               |          |          |          |          |          |          |          |          |          |          |
|      | Total Suspended Solids |          |          |          |          |          |          |          |          |          |          |
|      | pH                     |          |          |          |          |          |          |          |          |          |          |
| MW-4 | Arsenic                |          |          |          |          |          |          |          |          |          |          |
|      | Barium                 |          |          |          |          |          |          |          |          |          |          |
|      | Beryllium              |          |          |          |          |          |          |          |          |          |          |
|      | Boron                  |          |          |          |          |          |          |          |          |          |          |
|      | Cobalt                 | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|      | Copper                 |          |          |          |          |          |          |          |          |          |          |
|      | Iron                   | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|      | Lithium                |          |          |          |          |          |          |          |          |          |          |
|      | Magnesium              |          |          |          |          |          |          |          |          |          |          |
|      | Manganese              | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|      | Potassium              |          |          |          |          |          |          |          |          |          |          |
|      | Selenium               |          |          |          |          |          |          |          |          |          |          |
|      | Sodium                 |          |          |          | X        |          |          |          |          | X        |          |
|      | pH                     |          |          | X        |          | X        |          |          |          |          |          |
|      | Sulfate                |          |          |          |          |          |          |          |          |          |          |
|      | Bicarbonate Alkalinity |          |          |          |          |          |          |          |          |          |          |
| MW-3 | Arsenic                |          |          |          |          |          |          |          |          |          |          |
|      | Beryllium              |          |          |          |          |          |          |          |          |          |          |
|      | Iron                   | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|      | Cobalt                 |          |          |          |          |          |          | X        |          |          |          |
|      | Copper                 |          |          |          |          |          |          |          |          |          |          |
|      | Lead                   |          |          |          |          |          |          |          |          |          |          |
|      | Lithium                |          |          |          |          |          |          |          |          |          |          |
|      | Manganese              | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|      | Selenium               |          |          |          |          |          |          |          |          |          |          |
|      | Chloride               |          |          |          |          |          |          |          |          |          |          |
|      | Bicarbonate Alkalinity |          |          |          |          |          |          |          |          |          |          |
|      | Zinc                   |          |          |          |          |          |          |          |          |          |          |
|      |                        |          |          |          |          |          |          |          |          |          |          |
| MW-5 | Arsenic                |          |          |          |          |          |          |          |          |          |          |
|      | Barium                 |          |          |          |          |          |          |          |          |          |          |
|      | Beryllium              |          |          |          |          |          |          |          |          |          |          |
|      | Boron                  |          |          |          |          |          |          |          |          |          |          |
|      | Calcium                |          |          |          |          |          |          |          |          |          |          |
|      | Cobalt                 | X        | X        |          |          | X        |          |          |          |          |          |
|      | Copper                 |          |          |          |          |          |          |          |          |          |          |
|      | Iron                   | X        | X        |          |          | X        |          |          |          |          |          |
|      | Lead                   |          |          |          |          |          |          |          |          |          |          |
|      | Lithium                | X        | X        | X        | X        | X        | X        |          | X        |          |          |
|      | Magnesium              |          |          |          |          |          |          |          |          |          |          |
|      | Manganese              | X        | X        | X        | X        | X        | X        |          | X        |          |          |
|      | Potassium              |          |          |          |          |          |          |          |          |          |          |
|      | Zinc                   |          |          |          |          |          |          |          |          |          |          |
|      | pH                     |          |          | X        |          | X        |          |          |          |          |          |
|      | Selenium               |          |          |          |          |          |          |          |          |          |          |
|      | Sodium                 | X        | X        | X        | X        | X        | X        |          | X        |          |          |
|      | Bicarbonate Alkalinity |          |          |          |          |          |          |          |          |          |          |
|      | Chloride               |          |          |          |          |          |          |          |          |          |          |
|      | Sulfate                |          |          |          |          |          |          |          |          |          |          |
|      | Total Suspended Solids |          |          |          |          |          |          |          |          |          |          |

**Table 9**  
**Historic Control Limit Action Level Exceedances 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well  | Constituent            | Sep-2016 | May-2017 | Aug-2018 | Jun-2019 | Sep-2020 | Apr-2021 | Sep-2022 | Apr-2023 | Sep-2024 | Apr-2025 |
|-------|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| MW-10 | Arsenic                |          |          |          |          |          |          |          |          |          |          |
|       | Beryllium              |          |          |          |          |          |          |          |          |          |          |
|       | Boron                  | X        | X        | X        |          | X        |          |          |          |          | X        |
|       | Calcium                |          |          |          |          |          |          |          |          |          |          |
|       | Copper                 |          |          |          |          |          |          |          |          |          |          |
|       | Iron                   |          |          |          |          |          |          |          | X        | X        |          |
|       | Lead                   |          |          |          |          |          |          |          |          |          |          |
|       | Lithium                | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Magnesium              |          |          |          |          |          |          |          |          |          |          |
|       | Manganese              | X        | X        | X        |          | X        | X        | X        | X        | X        | X        |
|       | Potassium              |          |          |          |          |          |          |          |          |          |          |
|       | Zinc                   |          |          |          |          |          |          |          |          |          |          |
|       | Sodium                 | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Selenium               |          |          |          |          |          |          |          |          |          |          |
|       | pH                     |          |          | X        |          | X        | X        |          |          |          |          |
|       | Bicarbonate Alkalinity |          |          |          |          |          |          |          |          |          |          |
|       | Chloride               |          |          |          |          |          |          |          |          |          |          |
|       | Sulfate                | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
| MW-15 | Arsenic                |          |          |          |          |          |          |          |          |          |          |
|       | Beryllium              |          |          |          |          |          |          |          |          |          |          |
|       | Boron                  | X        |          |          |          |          |          |          |          |          |          |
|       | Calcium                |          |          |          |          |          |          |          |          |          |          |
|       | Cobalt                 |          |          |          |          |          |          |          |          |          |          |
|       | Copper                 |          |          |          |          |          |          |          |          |          |          |
|       | Iron                   | X        |          |          |          |          |          |          | X        |          |          |
|       | Lithium                | X        |          |          | X        |          | X        |          |          |          |          |
|       | Lead                   |          |          |          |          |          |          |          |          |          |          |
|       | Magnesium              |          |          |          |          |          |          |          |          |          |          |
|       | Manganese              | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Potassium              |          |          |          |          |          |          |          |          |          |          |
|       | Sodium                 | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Selenium               |          |          |          |          |          |          |          |          |          |          |
|       | Zinc                   |          |          |          |          |          |          |          |          |          |          |
|       | Bicarbonate Alkalinity |          |          |          |          |          |          |          |          |          |          |
|       | Chloride               |          |          |          |          |          |          |          |          |          |          |
|       | Sulfate                |          |          |          |          |          |          |          |          |          |          |

**Table 9**  
**Historic Control Limit Action Level Exceedances 2025 Annual Water Quality Report**  
**Grain Processing Corporation Coal Combustion Residue Landfill Permit No. 58-SDP-03-92C**

| Well  | Constituent                                                           | Sep-2016 | May-2017 | Aug-2018 | Jun-2019 | Sep-2020 | Apr-2021 | Sep-2022 | Apr-2023 | Sep-2024 | Apr-2025 |
|-------|-----------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| MW-16 | Arsenic                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Beryllium                                                             |          |          |          |          |          |          |          |          |          |          |
|       | Boron                                                                 |          | X        |          |          |          |          | X        | X        | X        | X        |
|       | Calcium                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Cobalt                                                                | X        |          |          |          |          |          | X        | X        | X        |          |
|       | Copper                                                                |          |          |          |          |          |          |          |          |          |          |
|       | Iron                                                                  | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Lead                                                                  |          |          |          |          |          |          |          |          |          |          |
|       | Lithium                                                               | X        | X        |          | X        | X        | X        | X        | X        | X        | X        |
|       | Magnesium                                                             |          |          |          |          |          |          |          |          |          |          |
|       | Manganese                                                             | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Potassium                                                             |          |          |          |          |          |          |          |          |          |          |
|       | Zinc                                                                  |          |          |          |          |          |          |          |          |          |          |
|       | Sodium                                                                | X        | X        |          | X        | X        | X        | X        | X        | X        | X        |
|       | Selenium                                                              |          |          |          |          |          |          |          |          |          |          |
|       | pH                                                                    |          |          | X        |          | X        | X        |          |          |          |          |
|       | Bicarbonate Alkalinity                                                |          |          |          |          |          |          |          |          |          |          |
|       | Chloride                                                              |          |          |          |          |          |          |          |          |          |          |
|       | Sulfate                                                               |          | X        |          |          |          |          |          |          |          |          |
|       | Total Suspended Solids                                                |          |          |          |          |          |          |          |          |          |          |
| MW-17 | Arsenic                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Boron                                                                 |          |          |          |          |          |          |          |          |          |          |
|       | Beryllium                                                             |          |          |          |          |          |          |          |          |          |          |
|       | Calcium                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Cobalt                                                                |          |          | X        | X        | X        | X        | X        | X        | X        |          |
|       | Copper                                                                |          |          |          |          |          |          |          |          |          |          |
|       | Iron                                                                  | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Lead                                                                  |          |          |          |          |          |          |          |          |          |          |
|       | Lithium                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Magnesium                                                             |          |          |          |          |          |          |          |          |          |          |
|       | Manganese                                                             | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Potassium                                                             |          |          |          |          |          |          |          |          |          |          |
|       | Zinc                                                                  |          |          |          |          |          |          |          |          |          |          |
|       | Sodium                                                                | X        | X        | X        |          |          |          |          |          |          |          |
|       | Selenium                                                              |          |          |          |          |          |          |          |          |          |          |
|       | Bicarbonate Alkalinity                                                |          |          |          |          |          |          |          |          |          |          |
|       | Chloride                                                              |          |          |          |          |          |          |          |          |          |          |
|       | Sulfate                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Total Suspended Solids                                                |          |          |          |          |          |          |          |          |          |          |
| MW-18 | Arsenic                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Barium                                                                |          |          |          |          |          |          |          |          |          |          |
|       | Beryllium                                                             |          |          |          |          |          |          |          |          |          |          |
|       | Boron                                                                 |          |          |          |          |          |          |          |          |          |          |
|       | Calcium                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Cobalt                                                                | X        |          |          |          |          |          |          |          |          |          |
|       | Copper                                                                |          |          |          |          |          |          |          |          |          |          |
|       | Iron                                                                  | X        | X        |          | X        | X        | X        | X        | X        | X        | X        |
|       | Lead                                                                  |          |          |          |          |          |          |          |          |          |          |
|       | Lithium                                                               | X        | X        | X        |          | X        |          | X        |          | X        | X        |
|       | Manganese                                                             | X        | X        | X        | X        | X        | X        | X        | X        | X        | X        |
|       | Zinc                                                                  |          |          |          |          |          |          |          |          |          |          |
|       | Selenium                                                              |          |          |          |          |          |          |          |          |          |          |
|       | Sodium                                                                |          |          | X        |          |          |          |          |          |          |          |
|       | Chloride                                                              |          |          |          |          |          |          |          |          |          |          |
|       | Sulfate                                                               |          |          |          |          |          |          |          |          |          |          |
|       | Total Suspended Solids                                                |          |          |          |          |          |          |          |          |          |          |
|       | Exceeds MCL                                                           |          |          |          |          |          |          |          |          |          |          |
|       | Exceeds Background (M+2SD) - Starting in 2020 and compared to 2024 CL |          |          |          |          |          |          |          |          |          |          |
| X     | Exceeds a SDWR, HAL, or NPGW SWS when no MCL                          |          |          |          |          |          |          |          |          |          |          |

## Appendix C    Laboratory Analytical Reports

Laboratory Analytical Report 2025

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Melissa Tiedemann  
Stanley Consultants Inc  
U of I Oakdale Res.  
2658 Crosspark Road, Suite 100  
Coralville, Iowa 52241

Generated 4/23/2025 2:09:46 PM

## JOB DESCRIPTION

GPC Landfill Sampling

## JOB NUMBER

310-304355-1

# Eurofins Cedar Falls

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

## Authorization



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Authorized for release by  
Zach Bindert, Senior Project Manager  
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# Table of Contents

|                                 |    |
|---------------------------------|----|
| Cover Page . . . . .            | 1  |
| Table of Contents . . . . .     | 3  |
| Case Narrative . . . . .        | 4  |
| Sample Summary . . . . .        | 5  |
| Detection Summary . . . . .     | 6  |
| Client Sample Results . . . . . | 9  |
| Definitions . . . . .           | 17 |
| QC Sample Results . . . . .     | 18 |
| QC Association . . . . .        | 23 |
| Chronicle . . . . .             | 26 |
| Certification Summary . . . . . | 29 |
| Method Summary . . . . .        | 30 |
| Chain of Custody . . . . .      | 31 |
| Receipt Checklists . . . . .    | 35 |



## Case Narrative

Client: Stanley Consultants Inc  
Project: GPC Landfill Sampling

Job ID: 310-304355-1

**Job ID: 310-304355-1**

**Eurofins Cedar Falls**

### **Job Narrative 310-304355-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### **Receipt**

The samples were received on 4/16/2025 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3°C and 2.6°C.

#### **Metals**

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

#### **General Chemistry**

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

Eurofins Cedar Falls

## Sample Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 310-304355-1  | MW-02            | Water  | 04/14/25 12:25 | 04/16/25 15:15 |
| 310-304355-2  | MW-03            | Water  | 04/14/25 11:00 | 04/16/25 15:15 |
| 310-304355-3  | MW-04            | Water  | 04/14/25 13:55 | 04/16/25 15:15 |
| 310-304355-4  | MW-10            | Water  | 04/15/25 11:00 | 04/16/25 15:15 |
| 310-304355-5  | MW-15            | Water  | 04/14/25 15:15 | 04/16/25 15:15 |
| 310-304355-6  | MW-16            | Water  | 04/15/25 09:25 | 04/16/25 15:15 |
| 310-304355-7  | MW-17            | Water  | 04/15/25 13:40 | 04/16/25 15:15 |
| 310-304355-8  | MW-18            | Water  | 04/15/25 12:30 | 04/16/25 15:15 |

## Detection Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

### Client Sample ID: MW-02

### Lab Sample ID: 310-304355-1

| Analyte                         | Result | Qualifier | RL      | MDL | Unit | Dil Fac | D | Method    | Prep Type |
|---------------------------------|--------|-----------|---------|-----|------|---------|---|-----------|-----------|
| Barium                          | 0.0361 |           | 0.00200 |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Boron                           | 0.211  |           | 0.100   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Calcium                         | 77.8   |           | 0.500   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Magnesium                       | 32.7   |           | 0.500   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Manganese                       | 0.0935 |           | 0.0100  |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sodium                          | 11.8   |           | 1.00    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sulfate                         | 43.5   |           | 10.0    |     | mg/L | 2       |   | 9038      | Total/NA  |
| pH                              | 7.90   | HF        | 1.00    |     | SU   | 1       |   | 9040C     | Total/NA  |
| Chloride                        | 11.0   |           | 2.00    |     | mg/L | 1       |   | 9251      | Total/NA  |
| Total Suspended Solids          | 2.25   |           | 1.88    |     | mg/L | 1       |   | I-3765-85 | Total/NA  |
| Bicarbonate Alkalinity as CaCO3 | 283    |           | 5.00    |     | mg/L | 1       |   | SM 2320B  | Total/NA  |

### Client Sample ID: MW-03

### Lab Sample ID: 310-304355-2

| Analyte                         | Result   | Qualifier | RL       | MDL | Unit | Dil Fac | D | Method    | Prep Type |
|---------------------------------|----------|-----------|----------|-----|------|---------|---|-----------|-----------|
| Barium                          | 0.206    |           | 0.00200  |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Calcium                         | 108      |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Cobalt                          | 0.000604 |           | 0.000500 |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Iron                            | 2.30     |           | 0.100    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Magnesium                       | 31.5     |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Manganese                       | 0.366    |           | 0.0100   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Potassium                       | 1.31     |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sodium                          | 16.2     |           | 1.00     |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sulfate                         | 38.8     |           | 10.0     |     | mg/L | 2       |   | 9038      | Total/NA  |
| pH                              | 7.16     | HF        | 1.00     |     | SU   | 1       |   | 9040C     | Total/NA  |
| Total Suspended Solids          | 10.0     |           | 3.00     |     | mg/L | 1       |   | I-3765-85 | Total/NA  |
| Bicarbonate Alkalinity as CaCO3 | 400      |           | 5.00     |     | mg/L | 1       |   | SM 2320B  | Total/NA  |

### Client Sample ID: MW-04

### Lab Sample ID: 310-304355-3

| Analyte                         | Result  | Qualifier | RL       | MDL | Unit | Dil Fac | D | Method    | Prep Type |
|---------------------------------|---------|-----------|----------|-----|------|---------|---|-----------|-----------|
| Barium                          | 0.147   |           | 0.00200  |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Boron                           | 0.244   |           | 0.100    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Calcium                         | 110     |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Cobalt                          | 0.00588 |           | 0.000500 |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Iron                            | 7.17    |           | 0.100    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Magnesium                       | 50.9    |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Manganese                       | 0.514   |           | 0.0100   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Potassium                       | 1.53    |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sodium                          | 19.4    |           | 1.00     |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sulfate                         | 66.0    |           | 25.0     |     | mg/L | 5       |   | 9038      | Total/NA  |
| pH                              | 6.80    | HF        | 1.00     |     | SU   | 1       |   | 9040C     | Total/NA  |
| Chloride                        | 12.8    |           | 2.00     |     | mg/L | 1       |   | 9251      | Total/NA  |
| Total Suspended Solids          | 8.25    |           | 1.88     |     | mg/L | 1       |   | I-3765-85 | Total/NA  |
| Bicarbonate Alkalinity as CaCO3 | 442     |           | 5.00     |     | mg/L | 1       |   | SM 2320B  | Total/NA  |

### Client Sample ID: MW-10

### Lab Sample ID: 310-304355-4

| Analyte | Result | Qualifier | RL      | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|---------|-----|------|---------|---|--------|-----------|
| Barium  | 0.0314 |           | 0.00200 |     | mg/L | 1       |   | 6020B  | Total/NA  |
| Boron   | 6.21   |           | 0.400   |     | mg/L | 4       |   | 6020B  | Total/NA  |
| Calcium | 361    |           | 0.500   |     | mg/L | 1       |   | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

## Detection Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

### Client Sample ID: MW-10 (Continued)

Lab Sample ID: 310-304355-4

| Analyte                         | Result | Qualifier | RL     | MDL | Unit | Dil | Fac | D | Method    | Prep Type |
|---------------------------------|--------|-----------|--------|-----|------|-----|-----|---|-----------|-----------|
| Iron                            | 0.139  |           | 0.100  |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Lithium                         | 0.214  |           | 0.0100 |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Magnesium                       | 106    |           | 2.00   |     | mg/L |     | 4   |   | 6020B     | Total/NA  |
| Manganese                       | 0.0786 |           | 0.0100 |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Potassium                       | 12.5   |           | 0.500  |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Sodium                          | 50.7   |           | 1.00   |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Sulfate                         | 803    |           | 250    |     | mg/L |     | 50  |   | 9038      | Total/NA  |
| pH                              | 6.77   | HF        | 1.00   |     | SU   |     | 1   |   | 9040C     | Total/NA  |
| Chloride                        | 25.7   |           | 2.00   |     | mg/L |     | 1   |   | 9251      | Total/NA  |
| Total Suspended Solids          | 7.00   |           | 5.00   |     | mg/L |     | 1   |   | I-3765-85 | Total/NA  |
| Bicarbonate Alkalinity as CaCO3 | 593    |           | 5.00   |     | mg/L |     | 1   |   | SM 2320B  | Total/NA  |

### Client Sample ID: MW-15

Lab Sample ID: 310-304355-5

| Analyte                         | Result   | Qualifier | RL       | MDL | Unit | Dil | Fac | D | Method    | Prep Type |
|---------------------------------|----------|-----------|----------|-----|------|-----|-----|---|-----------|-----------|
| Barium                          | 0.134    |           | 0.00200  |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Boron                           | 3.51     |           | 0.100    |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Calcium                         | 113      |           | 0.500    |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Cobalt                          | 0.000934 |           | 0.000500 |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Iron                            | 0.134    |           | 0.100    |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Lithium                         | 0.0119   |           | 0.0100   |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Magnesium                       | 39.1     |           | 0.500    |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Manganese                       | 0.294    |           | 0.0100   |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Potassium                       | 1.91     |           | 0.500    |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Sodium                          | 62.1     |           | 1.00     |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Sulfate                         | 59.2     |           | 25.0     |     | mg/L |     | 5   |   | 9038      | Total/NA  |
| pH                              | 7.28     | HF        | 1.00     |     | SU   |     | 1   |   | 9040C     | Total/NA  |
| Chloride                        | 12.2     |           | 2.00     |     | mg/L |     | 1   |   | 9251      | Total/NA  |
| Total Suspended Solids          | 7.62     |           | 1.88     |     | mg/L |     | 1   |   | I-3765-85 | Total/NA  |
| Bicarbonate Alkalinity as CaCO3 | 504      |           | 5.00     |     | mg/L |     | 1   |   | SM 2320B  | Total/NA  |

### Client Sample ID: MW-16

Lab Sample ID: 310-304355-6

| Analyte                         | Result  | Qualifier | RL       | MDL | Unit | Dil | Fac | D | Method    | Prep Type |
|---------------------------------|---------|-----------|----------|-----|------|-----|-----|---|-----------|-----------|
| Barium                          | 0.0557  |           | 0.00200  |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Boron                           | 11.0    |           | 0.400    |     | mg/L |     | 4   |   | 6020B     | Total/NA  |
| Calcium                         | 236     |           | 0.500    |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Cobalt                          | 0.00172 |           | 0.000500 |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Iron                            | 2.17    |           | 0.100    |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Lithium                         | 0.500   |           | 0.0100   |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Magnesium                       | 109     |           | 2.00     |     | mg/L |     | 4   |   | 6020B     | Total/NA  |
| Manganese                       | 0.686   |           | 0.0100   |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Potassium                       | 6.98    |           | 0.500    |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Sodium                          | 179     |           | 1.00     |     | mg/L |     | 1   |   | 6020B     | Total/NA  |
| Sulfate                         | 243     |           | 50.0     |     | mg/L |     | 10  |   | 9038      | Total/NA  |
| pH                              | 7.28    | HF        | 1.00     |     | SU   |     | 1   |   | 9040C     | Total/NA  |
| Chloride                        | 135     |           | 20.0     |     | mg/L |     | 10  |   | 9251      | Total/NA  |
| Total Suspended Solids          | 19.7    |           | 5.00     |     | mg/L |     | 1   |   | I-3765-85 | Total/NA  |
| Bicarbonate Alkalinity as CaCO3 | 939     |           | 5.00     |     | mg/L |     | 1   |   | SM 2320B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

## Detection Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

### Client Sample ID: MW-17

Lab Sample ID: 310-304355-7

| Analyte                         | Result  | Qualifier | RL       | MDL | Unit | Dil Fac | D | Method    | Prep Type |
|---------------------------------|---------|-----------|----------|-----|------|---------|---|-----------|-----------|
| Arsenic                         | 0.00243 |           | 0.00200  |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Barium                          | 0.0591  |           | 0.00200  |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Boron                           | 0.863   |           | 0.100    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Calcium                         | 129     |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Cobalt                          | 0.00203 |           | 0.000500 |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Iron                            | 7.07    |           | 0.100    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Magnesium                       | 51.8    |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Manganese                       | 0.851   |           | 0.0100   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Potassium                       | 1.67    |           | 0.500    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sodium                          | 13.2    |           | 1.00     |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sulfate                         | 69.7    |           | 25.0     |     | mg/L | 5       |   | 9038      | Total/NA  |
| pH                              | 7.27    | HF        | 1.00     |     | SU   | 1       |   | 9040C     | Total/NA  |
| Chloride                        | 14.2    |           | 2.00     |     | mg/L | 1       |   | 9251      | Total/NA  |
| Total Suspended Solids          | 23.5    |           | 1.88     |     | mg/L | 1       |   | I-3765-85 | Total/NA  |
| Bicarbonate Alkalinity as CaCO3 | 480     |           | 5.00     |     | mg/L | 1       |   | SM 2320B  | Total/NA  |

### Client Sample ID: MW-18

Lab Sample ID: 310-304355-8

| Analyte                         | Result | Qualifier | RL      | MDL | Unit | Dil Fac | D | Method    | Prep Type |
|---------------------------------|--------|-----------|---------|-----|------|---------|---|-----------|-----------|
| Arsenic                         | 0.0128 |           | 0.00200 |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Barium                          | 0.352  |           | 0.00200 |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Boron                           | 0.908  |           | 0.100   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Calcium                         | 118    |           | 0.500   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Iron                            | 14.6   |           | 0.100   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Lithium                         | 0.0444 |           | 0.0100  |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Magnesium                       | 32.2   |           | 0.500   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Manganese                       | 0.399  |           | 0.0100  |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Potassium                       | 0.834  |           | 0.500   |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sodium                          | 12.4   |           | 1.00    |     | mg/L | 1       |   | 6020B     | Total/NA  |
| Sulfate                         | 63.6   |           | 25.0    |     | mg/L | 5       |   | 9038      | Total/NA  |
| pH                              | 7.76   | HF        | 1.00    |     | SU   | 1       |   | 9040C     | Total/NA  |
| Chloride                        | 13.2   |           | 2.00    |     | mg/L | 1       |   | 9251      | Total/NA  |
| Total Suspended Solids          | 33.0   |           | 7.50    |     | mg/L | 1       |   | I-3765-85 | Total/NA  |
| Bicarbonate Alkalinity as CaCO3 | 387    |           | 5.00    |     | mg/L | 1       |   | SM 2320B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

# Client Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Client Sample ID: MW-02

Lab Sample ID: 310-304355-1

Date Collected: 04/14/25 12:25

Matrix: Water

Date Received: 04/16/25 15:15

## Method: SW846 6020B - Metals (ICP/MS)

| Analyte   | Result    | Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic   | <0.00200  |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Barium    | 0.0361    |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Beryllium | <0.00100  |           | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Boron     | 0.211     |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Calcium   | 77.8      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Cobalt    | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Copper    | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Iron      | <0.100    |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Lead      | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Lithium   | <0.0100   |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Magnesium | 32.7      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Manganese | 0.0935    |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Potassium | <0.500    |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Selenium  | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Sodium    | 11.8      |           | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |
| Zinc      | <0.0200   |           | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:56 | 1       |

## General Chemistry

| Analyte                                    | Result | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Sulfate (SW846 9038)                       | 43.5   |           | 10.0 |     | mg/L |   |          | 04/21/25 11:15 | 2       |
| Chloride (SW846 9251)                      | 11.0   |           | 2.00 |     | mg/L |   |          | 04/21/25 16:49 | 1       |
| Total Suspended Solids (USGS I-3765-85)    | 2.25   |           | 1.88 |     | mg/L |   |          | 04/17/25 14:49 | 1       |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 283    |           | 5.00 |     | mg/L |   |          | 04/18/25 19:39 | 1       |
| Analyte                                    | Result | Qualifier | RL   | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| pH (SW846 9040C)                           | 7.90   | HF        | 1.00 |     | SU   |   |          | 04/16/25 17:21 | 1       |

# Client Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Client Sample ID: MW-03

Lab Sample ID: 310-304355-2

Date Collected: 04/14/25 11:00

Matrix: Water

Date Received: 04/16/25 15:15

## Method: SW846 6020B - Metals (ICP/MS)

| Analyte          | Result          | Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic          | <0.00200        |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| <b>Barium</b>    | <b>0.206</b>    |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| Beryllium        | <0.00100        |           | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| Boron            | <0.100          |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| <b>Calcium</b>   | <b>108</b>      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| <b>Cobalt</b>    | <b>0.000604</b> |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| Copper           | <0.00500        |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| <b>Iron</b>      | <b>2.30</b>     |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| Lead             | <0.000500       |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| Lithium          | <0.0100         |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| <b>Magnesium</b> | <b>31.5</b>     |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| <b>Manganese</b> | <b>0.366</b>    |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| <b>Potassium</b> | <b>1.31</b>     |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| Selenium         | <0.00500        |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| <b>Sodium</b>    | <b>16.2</b>     |           | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |
| Zinc             | <0.0200         |           | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:17 | 1       |

## General Chemistry

| Analyte                                           | Result      | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------------------|-------------|-----------|------|-----|------|---|----------|----------------|---------|
| <b>Sulfate (SW846 9038)</b>                       | <b>38.8</b> |           | 10.0 |     | mg/L |   |          | 04/21/25 11:16 | 2       |
| Chloride (SW846 9251)                             | <2.00       |           | 2.00 |     | mg/L |   |          | 04/21/25 16:50 | 1       |
| <b>Total Suspended Solids (USGS I-3765-85)</b>    | <b>10.0</b> |           | 3.00 |     | mg/L |   |          | 04/17/25 14:49 | 1       |
| <b>Bicarbonate Alkalinity as CaCO3 (SM 2320B)</b> | <b>400</b>  |           | 5.00 |     | mg/L |   |          | 04/18/25 19:49 | 1       |
| Analyte                                           | Result      | Qualifier | RL   | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| <b>pH (SW846 9040C)</b>                           | <b>7.16</b> | <b>HF</b> | 1.00 |     | SU   |   |          | 04/16/25 17:20 | 1       |

# Client Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Client Sample ID: MW-04

Lab Sample ID: 310-304355-3

Date Collected: 04/14/25 13:55

Matrix: Water

Date Received: 04/16/25 15:15

## Method: SW846 6020B - Metals (ICP/MS)

| Analyte   | Result    | Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic   | <0.00200  |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Barium    | 0.147     |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Beryllium | <0.00100  |           | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Boron     | 0.244     |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Calcium   | 110       |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Cobalt    | 0.00588   |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Copper    | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Iron      | 7.17      |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Lead      | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Lithium   | <0.0100   |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Magnesium | 50.9      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Manganese | 0.514     |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Potassium | 1.53      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Selenium  | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Sodium    | 19.4      |           | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |
| Zinc      | <0.0200   |           | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:58 | 1       |

## General Chemistry

| Analyte                                    | Result | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Sulfate (SW846 9038)                       | 66.0   |           | 25.0 |     | mg/L |   |          | 04/22/25 12:35 | 5       |
| Chloride (SW846 9251)                      | 12.8   |           | 2.00 |     | mg/L |   |          | 04/21/25 16:50 | 1       |
| Total Suspended Solids (USGS I-3765-85)    | 8.25   |           | 1.88 |     | mg/L |   |          | 04/17/25 14:49 | 1       |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 442    |           | 5.00 |     | mg/L |   |          | 04/18/25 20:00 | 1       |
| Analyte                                    | Result | Qualifier | RL   | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| pH (SW846 9040C)                           | 6.80   | HF        | 1.00 |     | SU   |   |          | 04/16/25 17:22 | 1       |

# Client Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Client Sample ID: MW-10

Lab Sample ID: 310-304355-4

Date Collected: 04/15/25 11:00

Matrix: Water

Date Received: 04/16/25 15:15

## Method: SW846 6020B - Metals (ICP/MS)

| Analyte   | Result    | Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic   | <0.00200  |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Barium    | 0.0314    |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Beryllium | <0.00100  |           | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Boron     | 6.21      |           | 0.400    |     | mg/L |   | 04/18/25 09:30 | 04/23/25 13:08 | 4       |
| Calcium   | 361       |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Cobalt    | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Copper    | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Iron      | 0.139     |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Lead      | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Lithium   | 0.214     |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Magnesium | 106       |           | 2.00     |     | mg/L |   | 04/18/25 09:30 | 04/23/25 13:08 | 4       |
| Manganese | 0.0786    |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Potassium | 12.5      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Selenium  | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Sodium    | 50.7      |           | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |
| Zinc      | <0.0200   |           | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:39 | 1       |

## General Chemistry

| Analyte                                    | Result | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Sulfate (SW846 9038)                       | 803    |           | 250  |     | mg/L |   |          | 04/22/25 14:00 | 50      |
| Chloride (SW846 9251)                      | 25.7   |           | 2.00 |     | mg/L |   |          | 04/21/25 16:50 | 1       |
| Total Suspended Solids (USGS I-3765-85)    | 7.00   |           | 5.00 |     | mg/L |   |          | 04/18/25 11:51 | 1       |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 593    |           | 5.00 |     | mg/L |   |          | 04/18/25 23:56 | 1       |
| Analyte                                    | Result | Qualifier | RL   | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| pH (SW846 9040C)                           | 6.77   | HF        | 1.00 |     | SU   |   |          | 04/16/25 17:25 | 1       |

# Client Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Client Sample ID: MW-15

Lab Sample ID: 310-304355-5

Date Collected: 04/14/25 15:15

Matrix: Water

Date Received: 04/16/25 15:15

## Method: SW846 6020B - Metals (ICP/MS)

| Analyte   | Result    | Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic   | <0.00200  |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Barium    | 0.134     |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Beryllium | <0.00100  |           | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Boron     | 3.51      |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/23/25 13:11 | 1       |
| Calcium   | 113       |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Cobalt    | 0.000934  |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Copper    | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Iron      | 0.134     |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Lead      | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Lithium   | 0.0119    |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Magnesium | 39.1      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Manganese | 0.294     |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Potassium | 1.91      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Selenium  | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Sodium    | 62.1      |           | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |
| Zinc      | <0.0200   |           | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:41 | 1       |

## General Chemistry

| Analyte                                    | Result | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Sulfate (SW846 9038)                       | 59.2   |           | 25.0 |     | mg/L |   |          | 04/22/25 14:01 | 5       |
| Chloride (SW846 9251)                      | 12.2   |           | 2.00 |     | mg/L |   |          | 04/21/25 16:51 | 1       |
| Total Suspended Solids (USGS I-3765-85)    | 7.62   |           | 1.88 |     | mg/L |   |          | 04/17/25 14:49 | 1       |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 504    |           | 5.00 |     | mg/L |   |          | 04/19/25 00:10 | 1       |
| Analyte                                    | Result | Qualifier | RL   | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| pH (SW846 9040C)                           | 7.28   | HF        | 1.00 |     | SU   |   |          | 04/16/25 17:18 | 1       |

# Client Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Client Sample ID: MW-16

Lab Sample ID: 310-304355-6

Date Collected: 04/15/25 09:25

Matrix: Water

Date Received: 04/16/25 15:15

## Method: SW846 6020B - Metals (ICP/MS)

| Analyte   | Result    | Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic   | <0.00200  |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Barium    | 0.0557    |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Beryllium | <0.00100  |           | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Boron     | 11.0      |           | 0.400    |     | mg/L |   | 04/18/25 09:30 | 04/23/25 13:16 | 4       |
| Calcium   | 236       |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Cobalt    | 0.00172   |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Copper    | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Iron      | 2.17      |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Lead      | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Lithium   | 0.500     |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Magnesium | 109       |           | 2.00     |     | mg/L |   | 04/18/25 09:30 | 04/23/25 13:16 | 4       |
| Manganese | 0.686     |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Potassium | 6.98      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Selenium  | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Sodium    | 179       |           | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |
| Zinc      | <0.0200   |           | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 18:53 | 1       |

## General Chemistry

| Analyte                                    | Result | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Sulfate (SW846 9038)                       | 243    |           | 50.0 |     | mg/L |   |          | 04/22/25 14:01 | 10      |
| Chloride (SW846 9251)                      | 135    |           | 20.0 |     | mg/L |   |          | 04/21/25 16:51 | 10      |
| Total Suspended Solids (USGS I-3765-85)    | 19.7   |           | 5.00 |     | mg/L |   |          | 04/18/25 13:43 | 1       |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 939    |           | 5.00 |     | mg/L |   |          | 04/19/25 00:21 | 1       |
| Analyte                                    | Result | Qualifier | RL   | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| pH (SW846 9040C)                           | 7.28   | HF        | 1.00 |     | SU   |   |          | 04/16/25 17:24 | 1       |

# Client Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Client Sample ID: MW-17

Lab Sample ID: 310-304355-7

Date Collected: 04/15/25 13:40

Matrix: Water

Date Received: 04/16/25 15:15

## Method: SW846 6020B - Metals (ICP/MS)

| Analyte   | Result    | Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic   | 0.00243   |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Barium    | 0.0591    |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Beryllium | <0.00100  |           | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Boron     | 0.863     |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/23/25 13:25 | 1       |
| Calcium   | 129       |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Cobalt    | 0.00203   |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Copper    | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Iron      | 7.07      |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Lead      | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Lithium   | <0.0100   |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Magnesium | 51.8      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Manganese | 0.851     |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Potassium | 1.67      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Selenium  | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Sodium    | 13.2      |           | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |
| Zinc      | <0.0200   |           | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:56 | 1       |

## General Chemistry

| Analyte                                    | Result | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Sulfate (SW846 9038)                       | 69.7   |           | 25.0 |     | mg/L |   |          | 04/22/25 14:02 | 5       |
| Chloride (SW846 9251)                      | 14.2   |           | 2.00 |     | mg/L |   |          | 04/21/25 16:52 | 1       |
| Total Suspended Solids (USGS I-3765-85)    | 23.5   |           | 1.88 |     | mg/L |   |          | 04/17/25 20:08 | 1       |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 480    |           | 5.00 |     | mg/L |   |          | 04/19/25 00:37 | 1       |
| Analyte                                    | Result | Qualifier | RL   | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| pH (SW846 9040C)                           | 7.27   | HF        | 1.00 |     | SU   |   |          | 04/16/25 17:26 | 1       |

# Client Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Client Sample ID: MW-18

Lab Sample ID: 310-304355-8

Date Collected: 04/15/25 12:30

Matrix: Water

Date Received: 04/16/25 15:15

## Method: SW846 6020B - Metals (ICP/MS)

| Analyte   | Result    | Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic   | 0.0128    |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Barium    | 0.352     |           | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Beryllium | <0.00100  |           | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Boron     | 0.908     |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Calcium   | 118       |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Cobalt    | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Copper    | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Iron      | 14.6      |           | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Lead      | <0.000500 |           | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Lithium   | 0.0444    |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Magnesium | 32.2      |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Manganese | 0.399     |           | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Potassium | 0.834     |           | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Selenium  | <0.00500  |           | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Sodium    | 12.4      |           | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |
| Zinc      | <0.0200   |           | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:41 | 1       |

## General Chemistry

| Analyte                                    | Result | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| Sulfate (SW846 9038)                       | 63.6   |           | 25.0 |     | mg/L |   |          | 04/22/25 14:02 | 5       |
| Chloride (SW846 9251)                      | 13.2   |           | 2.00 |     | mg/L |   |          | 04/21/25 16:52 | 1       |
| Total Suspended Solids (USGS I-3765-85)    | 33.0   |           | 7.50 |     | mg/L |   |          | 04/18/25 11:51 | 1       |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 387    |           | 5.00 |     | mg/L |   |          | 04/19/25 00:48 | 1       |
| Analyte                                    | Result | Qualifier | RL   | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| pH (SW846 9040C)                           | 7.76   | HF        | 1.00 |     | SU   |   |          | 04/16/25 17:23 | 1       |

## Definitions/Glossary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

### Qualifiers

#### General Chemistry

| Qualifier | Qualifier Description                                                                                                                    |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------|
| HF        | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |

### Glossary

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

# QC Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-451923/1-A  
Matrix: Water  
Analysis Batch: 452401

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 451923

| Analyte   | MB Result | MB Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|----------|-----|------|---|----------------|----------------|---------|
| Arsenic   | <0.00200  |              | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Barium    | <0.00200  |              | 0.00200  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Beryllium | <0.00100  |              | 0.00100  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Boron     | <0.100    |              | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Calcium   | <0.500    |              | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Cobalt    | <0.000500 |              | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Copper    | <0.00500  |              | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Iron      | <0.100    |              | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Lead      | <0.000500 |              | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Lithium   | <0.0100   |              | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Magnesium | <0.500    |              | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Manganese | <0.0100   |              | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Potassium | <0.500    |              | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Selenium  | <0.00500  |              | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Sodium    | <1.00     |              | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |
| Zinc      | <0.0200   |              | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 19:03 | 1       |

Lab Sample ID: LCS 310-451923/2-A  
Matrix: Water  
Analysis Batch: 452401

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 451923

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| Arsenic   | 0.200       | 0.2029     |               | mg/L |   | 101  | 80 - 120    |
| Barium    | 0.100       | 0.1010     |               | mg/L |   | 101  | 80 - 120    |
| Beryllium | 0.100       | 0.09795    |               | mg/L |   | 98   | 80 - 120    |
| Boron     | 0.200       | 0.2254     |               | mg/L |   | 113  | 80 - 120    |
| Calcium   | 2.00        | 1.716      |               | mg/L |   | 86   | 80 - 120    |
| Cobalt    | 0.100       | 0.1009     |               | mg/L |   | 101  | 80 - 120    |
| Copper    | 0.200       | 0.2009     |               | mg/L |   | 100  | 80 - 120    |
| Iron      | 0.200       | 0.2040     |               | mg/L |   | 102  | 80 - 120    |
| Lead      | 0.200       | 0.2102     |               | mg/L |   | 105  | 80 - 120    |
| Lithium   | 0.200       | 0.1927     |               | mg/L |   | 96   | 80 - 120    |
| Magnesium | 2.00        | 1.881      |               | mg/L |   | 94   | 80 - 120    |
| Manganese | 0.100       | 0.09618    |               | mg/L |   | 96   | 80 - 120    |
| Potassium | 2.00        | 1.922      |               | mg/L |   | 96   | 80 - 120    |
| Selenium  | 0.400       | 0.3822     |               | mg/L |   | 96   | 80 - 120    |
| Sodium    | 2.00        | 2.087      |               | mg/L |   | 104  | 80 - 120    |
| Zinc      | 0.200       | 0.1992     |               | mg/L |   | 100  | 80 - 120    |

Lab Sample ID: MB 310-451925/1-A  
Matrix: Water  
Analysis Batch: 452401

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 451925

| Analyte   | MB Result | MB Qualifier | RL      | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|---------|-----|------|---|----------------|----------------|---------|
| Arsenic   | <0.00200  |              | 0.00200 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Barium    | <0.00200  |              | 0.00200 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Beryllium | <0.00100  |              | 0.00100 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Boron     | <0.100    |              | 0.100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Calcium   | <0.500    |              | 0.500   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |

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# QC Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-451925/1-A

Matrix: Water

Analysis Batch: 452401

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 451925

| Analyte   | MB Result | MB Qualifier | RL       | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|----------|-----|------|---|----------------|----------------|---------|
| Cobalt    | <0.000500 |              | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Copper    | <0.00500  |              | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Iron      | <0.100    |              | 0.100    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Lead      | <0.000500 |              | 0.000500 |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Lithium   | <0.0100   |              | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Magnesium | <0.500    |              | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Manganese | <0.0100   |              | 0.0100   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Potassium | <0.500    |              | 0.500    |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Selenium  | <0.00500  |              | 0.00500  |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Sodium    | <1.00     |              | 1.00     |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |
| Zinc      | <0.0200   |              | 0.0200   |     | mg/L |   | 04/18/25 09:30 | 04/22/25 17:46 | 1       |

Lab Sample ID: LCS 310-451925/2-A

Matrix: Water

Analysis Batch: 452401

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 451925

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------|-------------|------------|---------------|------|---|------|-------------|
| Arsenic   | 0.200       | 0.2093     |               | mg/L |   | 105  | 80 - 120    |
| Barium    | 0.100       | 0.1051     |               | mg/L |   | 105  | 80 - 120    |
| Beryllium | 0.100       | 0.09774    |               | mg/L |   | 98   | 80 - 120    |
| Boron     | 0.200       | 0.1911     |               | mg/L |   | 96   | 80 - 120    |
| Calcium   | 2.00        | 1.785      |               | mg/L |   | 89   | 80 - 120    |
| Cobalt    | 0.100       | 0.1053     |               | mg/L |   | 105  | 80 - 120    |
| Copper    | 0.200       | 0.2043     |               | mg/L |   | 102  | 80 - 120    |
| Iron      | 0.200       | 0.2113     |               | mg/L |   | 106  | 80 - 120    |
| Lead      | 0.200       | 0.2149     |               | mg/L |   | 107  | 80 - 120    |
| Lithium   | 0.200       | 0.1987     |               | mg/L |   | 99   | 80 - 120    |
| Magnesium | 2.00        | 1.983      |               | mg/L |   | 99   | 80 - 120    |
| Manganese | 0.100       | 0.1003     |               | mg/L |   | 100  | 80 - 120    |
| Potassium | 2.00        | 2.044      |               | mg/L |   | 102  | 80 - 120    |
| Selenium  | 0.400       | 0.3965     |               | mg/L |   | 99   | 80 - 120    |
| Sodium    | 2.00        | 2.171      |               | mg/L |   | 109  | 80 - 120    |
| Zinc      | 0.200       | 0.2062     |               | mg/L |   | 103  | 80 - 120    |

## Method: 9038 - Sulfate (Turbidimetric)

Lab Sample ID: MB 310-452218/16

Matrix: Water

Analysis Batch: 452218

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-----|------|---|----------|----------------|---------|
| Sulfate | <5.00     |              | 5.00 |     | mg/L |   |          | 04/21/25 11:05 | 1       |

Lab Sample ID: LCS 310-452218/14

Matrix: Water

Analysis Batch: 452218

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------|-------------|------------|---------------|------|---|------|-------------|
| Sulfate | 10.0        | 9.538      |               | mg/L |   | 95   | 85 - 115    |

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# QC Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

## Method: 9038 - Sulfate (Turbidimetric) (Continued)

Lab Sample ID: MB 310-452363/16

Matrix: Water

Analysis Batch: 452363

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-----|------|---|----------|----------------|---------|
| Sulfate | <5.00        |                 | 5.00 |     | mg/L |   |          | 04/22/25 12:32 | 1       |

Lab Sample ID: LCS 310-452363/14

Matrix: Water

Analysis Batch: 452363

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|----------------|
| Sulfate | 10.0           | 9.327         |                  | mg/L |   | 93   | 85 - 115       |

Lab Sample ID: MB 310-452364/16

Matrix: Water

Analysis Batch: 452364

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-----|------|---|----------|----------------|---------|
| Sulfate | <5.00        |                 | 5.00 |     | mg/L |   |          | 04/22/25 13:59 | 1       |

Lab Sample ID: LCS 310-452364/14

Matrix: Water

Analysis Batch: 452364

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|----------------|
| Sulfate | 10.0           | 9.392         |                  | mg/L |   | 94   | 85 - 115       |

Lab Sample ID: 310-304355-4 MS

Matrix: Water

Analysis Batch: 452364

Client Sample ID: MW-10

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|----------------|
| Sulfate | 803              |                     | 500            | 1299         |                 | mg/L |   | 99   | 70 - 130       |

Lab Sample ID: 310-304355-4 MSD

Matrix: Water

Analysis Batch: 452364

Client Sample ID: MW-10

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits | RPD | RPD<br>Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|------|---|------|----------------|-----|--------------|
| Sulfate | 803              |                     | 500            | 1268          |                  | mg/L |   | 93   | 70 - 130       | 2   | 20           |

## Method: 9040C - pH

Lab Sample ID: LCS 310-451722/18

Matrix: Water

Analysis Batch: 451722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|----------------|
| pH      | 7.00           | 6.990         |                  | SU   |   | 100  | 98 - 102       |

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# QC Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

## Method: 9040C - pH (Continued)

Lab Sample ID: 310-304355-5 DU  
Matrix: Water  
Analysis Batch: 451722

Client Sample ID: MW-15  
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| pH      | 7.28          | HF               | 7.280     |              | SU   |   | 0   | 20        |

## Method: 9251 - Chloride (Colormetric, Automated Ferricyanide)

Lab Sample ID: MB 310-452243/16  
Matrix: Water  
Analysis Batch: 452243

Client Sample ID: Method Blank  
Prep Type: Total/NA

| Analyte  | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-----|------|---|----------|----------------|---------|
| Chloride | <2.00     |              | 2.00 |     | mg/L |   |          | 04/21/25 16:44 | 1       |

Lab Sample ID: LCS 310-452243/14  
Matrix: Water  
Analysis Batch: 452243

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------|-------------|------------|---------------|------|---|------|-------------|
| Chloride | 10.0        | 10.80      |               | mg/L |   | 108  | 90 - 110    |

## Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-451943/1  
Matrix: Water  
Analysis Batch: 451943

Client Sample ID: Method Blank  
Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|------|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <5.00     |              | 5.00 |     | mg/L |   |          | 04/17/25 14:49 | 1       |

Lab Sample ID: LCS 310-451943/2  
Matrix: Water  
Analysis Batch: 451943

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Suspended Solids | 100         | 95.00      |               | mg/L |   | 95   | 81 - 116    |

Lab Sample ID: MB 310-451961/1  
Matrix: Water  
Analysis Batch: 451961

Client Sample ID: Method Blank  
Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|------|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <5.00     |              | 5.00 |     | mg/L |   |          | 04/17/25 20:08 | 1       |

Lab Sample ID: LCS 310-451961/2  
Matrix: Water  
Analysis Batch: 451961

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|------------------------|-------------|------------|---------------|------|---|------|-------------|
| Total Suspended Solids | 100         | 105.0      |               | mg/L |   | 105  | 81 - 116    |

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# QC Sample Results

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

## Method: I-3765-85 - Residue, Non-filterable (TSS) (Continued)

Lab Sample ID: MB 310-452041/1  
Matrix: Water  
Analysis Batch: 452041

Client Sample ID: Method Blank  
Prep Type: Total/NA

| Analyte                | MB<br>Result | MB<br>Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------------|-----------------|------|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <5.00        |                 | 5.00 |     | mg/L |   |          | 04/18/25 11:51 | 1       |

Lab Sample ID: LCS 310-452041/2  
Matrix: Water  
Analysis Batch: 452041

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|------------------------|----------------|---------------|------------------|------|---|------|----------------|
| Total Suspended Solids | 100            | 108.0         |                  | mg/L |   | 108  | 81 - 116       |

Lab Sample ID: MB 310-452073/1  
Matrix: Water  
Analysis Batch: 452073

Client Sample ID: Method Blank  
Prep Type: Total/NA

| Analyte                | MB<br>Result | MB<br>Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------------|-----------------|------|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <5.00        |                 | 5.00 |     | mg/L |   |          | 04/18/25 13:43 | 1       |

Lab Sample ID: LCS 310-452073/2  
Matrix: Water  
Analysis Batch: 452073

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|------------------------|----------------|---------------|------------------|------|---|------|----------------|
| Total Suspended Solids | 100            | 97.00         |                  | mg/L |   | 97   | 81 - 116       |

# QC Association Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

## Metals

### Prep Batch: 451923

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 310-304355-2       | MW-03              | Total/NA  | Water  | 3005A  |            |
| 310-304355-7       | MW-17              | Total/NA  | Water  | 3005A  |            |
| 310-304355-8       | MW-18              | Total/NA  | Water  | 3005A  |            |
| MB 310-451923/1-A  | Method Blank       | Total/NA  | Water  | 3005A  |            |
| LCS 310-451923/2-A | Lab Control Sample | Total/NA  | Water  | 3005A  |            |

### Prep Batch: 451925

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 310-304355-1       | MW-02              | Total/NA  | Water  | 3005A  |            |
| 310-304355-3       | MW-04              | Total/NA  | Water  | 3005A  |            |
| 310-304355-4       | MW-10              | Total/NA  | Water  | 3005A  |            |
| 310-304355-5       | MW-15              | Total/NA  | Water  | 3005A  |            |
| 310-304355-6       | MW-16              | Total/NA  | Water  | 3005A  |            |
| MB 310-451925/1-A  | Method Blank       | Total/NA  | Water  | 3005A  |            |
| LCS 310-451925/2-A | Lab Control Sample | Total/NA  | Water  | 3005A  |            |

### Analysis Batch: 452401

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 310-304355-1       | MW-02              | Total/NA  | Water  | 6020B  | 451925     |
| 310-304355-2       | MW-03              | Total/NA  | Water  | 6020B  | 451923     |
| 310-304355-3       | MW-04              | Total/NA  | Water  | 6020B  | 451925     |
| 310-304355-4       | MW-10              | Total/NA  | Water  | 6020B  | 451925     |
| 310-304355-5       | MW-15              | Total/NA  | Water  | 6020B  | 451925     |
| 310-304355-6       | MW-16              | Total/NA  | Water  | 6020B  | 451925     |
| 310-304355-7       | MW-17              | Total/NA  | Water  | 6020B  | 451923     |
| 310-304355-8       | MW-18              | Total/NA  | Water  | 6020B  | 451923     |
| MB 310-451923/1-A  | Method Blank       | Total/NA  | Water  | 6020B  | 451923     |
| MB 310-451925/1-A  | Method Blank       | Total/NA  | Water  | 6020B  | 451925     |
| LCS 310-451923/2-A | Lab Control Sample | Total/NA  | Water  | 6020B  | 451923     |
| LCS 310-451925/2-A | Lab Control Sample | Total/NA  | Water  | 6020B  | 451925     |

### Analysis Batch: 452481

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 310-304355-4  | MW-10            | Total/NA  | Water  | 6020B  | 451925     |
| 310-304355-5  | MW-15            | Total/NA  | Water  | 6020B  | 451925     |
| 310-304355-6  | MW-16            | Total/NA  | Water  | 6020B  | 451925     |
| 310-304355-7  | MW-17            | Total/NA  | Water  | 6020B  | 451923     |

## General Chemistry

### Analysis Batch: 451722

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 310-304355-1      | MW-02              | Total/NA  | Water  | 9040C  |            |
| 310-304355-2      | MW-03              | Total/NA  | Water  | 9040C  |            |
| 310-304355-3      | MW-04              | Total/NA  | Water  | 9040C  |            |
| 310-304355-4      | MW-10              | Total/NA  | Water  | 9040C  |            |
| 310-304355-5      | MW-15              | Total/NA  | Water  | 9040C  |            |
| 310-304355-6      | MW-16              | Total/NA  | Water  | 9040C  |            |
| 310-304355-7      | MW-17              | Total/NA  | Water  | 9040C  |            |
| 310-304355-8      | MW-18              | Total/NA  | Water  | 9040C  |            |
| LCS 310-451722/18 | Lab Control Sample | Total/NA  | Water  | 9040C  |            |

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# QC Association Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

## General Chemistry (Continued)

### Analysis Batch: 451722 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 310-304355-5 DU | MW-15            | Total/NA  | Water  | 9040C  |            |

### Analysis Batch: 451943

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|------------------|--------------------|-----------|--------|-----------|------------|
| 310-304355-1     | MW-02              | Total/NA  | Water  | I-3765-85 |            |
| 310-304355-2     | MW-03              | Total/NA  | Water  | I-3765-85 |            |
| 310-304355-3     | MW-04              | Total/NA  | Water  | I-3765-85 |            |
| 310-304355-5     | MW-15              | Total/NA  | Water  | I-3765-85 |            |
| MB 310-451943/1  | Method Blank       | Total/NA  | Water  | I-3765-85 |            |
| LCS 310-451943/2 | Lab Control Sample | Total/NA  | Water  | I-3765-85 |            |

### Analysis Batch: 451961

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|------------------|--------------------|-----------|--------|-----------|------------|
| 310-304355-7     | MW-17              | Total/NA  | Water  | I-3765-85 |            |
| MB 310-451961/1  | Method Blank       | Total/NA  | Water  | I-3765-85 |            |
| LCS 310-451961/2 | Lab Control Sample | Total/NA  | Water  | I-3765-85 |            |

### Analysis Batch: 452041

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|------------------|--------------------|-----------|--------|-----------|------------|
| 310-304355-4     | MW-10              | Total/NA  | Water  | I-3765-85 |            |
| 310-304355-8     | MW-18              | Total/NA  | Water  | I-3765-85 |            |
| MB 310-452041/1  | Method Blank       | Total/NA  | Water  | I-3765-85 |            |
| LCS 310-452041/2 | Lab Control Sample | Total/NA  | Water  | I-3765-85 |            |

### Analysis Batch: 452073

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|------------------|--------------------|-----------|--------|-----------|------------|
| 310-304355-6     | MW-16              | Total/NA  | Water  | I-3765-85 |            |
| MB 310-452073/1  | Method Blank       | Total/NA  | Water  | I-3765-85 |            |
| LCS 310-452073/2 | Lab Control Sample | Total/NA  | Water  | I-3765-85 |            |

### Analysis Batch: 452099

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|-------------------|--------------------|-----------|--------|----------|------------|
| 310-304355-1      | MW-02              | Total/NA  | Water  | SM 2320B |            |
| 310-304355-2      | MW-03              | Total/NA  | Water  | SM 2320B |            |
| 310-304355-3      | MW-04              | Total/NA  | Water  | SM 2320B |            |
| 310-304355-4      | MW-10              | Total/NA  | Water  | SM 2320B |            |
| 310-304355-5      | MW-15              | Total/NA  | Water  | SM 2320B |            |
| 310-304355-6      | MW-16              | Total/NA  | Water  | SM 2320B |            |
| 310-304355-7      | MW-17              | Total/NA  | Water  | SM 2320B |            |
| 310-304355-8      | MW-18              | Total/NA  | Water  | SM 2320B |            |
| LCS 310-452099/2  | Lab Control Sample | Total/NA  | Water  | SM 2320B |            |
| LCS 310-452099/25 | Lab Control Sample | Total/NA  | Water  | SM 2320B |            |

### Analysis Batch: 452218

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 310-304355-1      | MW-02              | Total/NA  | Water  | 9038   |            |
| 310-304355-2      | MW-03              | Total/NA  | Water  | 9038   |            |
| MB 310-452218/16  | Method Blank       | Total/NA  | Water  | 9038   |            |
| LCS 310-452218/14 | Lab Control Sample | Total/NA  | Water  | 9038   |            |

Eurofins Cedar Falls

# QC Association Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

## General Chemistry

### Analysis Batch: 452243

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 310-304355-1      | MW-02              | Total/NA  | Water  | 9251   |            |
| 310-304355-2      | MW-03              | Total/NA  | Water  | 9251   |            |
| 310-304355-3      | MW-04              | Total/NA  | Water  | 9251   |            |
| 310-304355-4      | MW-10              | Total/NA  | Water  | 9251   |            |
| 310-304355-5      | MW-15              | Total/NA  | Water  | 9251   |            |
| 310-304355-6      | MW-16              | Total/NA  | Water  | 9251   |            |
| 310-304355-7      | MW-17              | Total/NA  | Water  | 9251   |            |
| 310-304355-8      | MW-18              | Total/NA  | Water  | 9251   |            |
| MB 310-452243/16  | Method Blank       | Total/NA  | Water  | 9251   |            |
| LCS 310-452243/14 | Lab Control Sample | Total/NA  | Water  | 9251   |            |

### Analysis Batch: 452363

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 310-304355-3      | MW-04              | Total/NA  | Water  | 9038   |            |
| MB 310-452363/16  | Method Blank       | Total/NA  | Water  | 9038   |            |
| LCS 310-452363/14 | Lab Control Sample | Total/NA  | Water  | 9038   |            |

### Analysis Batch: 452364

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 310-304355-4      | MW-10              | Total/NA  | Water  | 9038   |            |
| 310-304355-5      | MW-15              | Total/NA  | Water  | 9038   |            |
| 310-304355-6      | MW-16              | Total/NA  | Water  | 9038   |            |
| 310-304355-7      | MW-17              | Total/NA  | Water  | 9038   |            |
| 310-304355-8      | MW-18              | Total/NA  | Water  | 9038   |            |
| MB 310-452364/16  | Method Blank       | Total/NA  | Water  | 9038   |            |
| LCS 310-452364/14 | Lab Control Sample | Total/NA  | Water  | 9038   |            |
| 310-304355-4 MS   | MW-10              | Total/NA  | Water  | 9038   |            |
| 310-304355-4 MSD  | MW-10              | Total/NA  | Water  | 9038   |            |

# Lab Chronicle

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

**Client Sample ID: MW-02**

**Lab Sample ID: 310-304355-1**

**Date Collected: 04/14/25 12:25**

**Matrix: Water**

**Date Received: 04/16/25 15:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Prep       | 3005A        |     |                 | 451925       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452401       | NFT2    | EET CF | 04/22/25 18:56       |
| Total/NA  | Analysis   | 9038         |     | 2               | 452218       | ENB7    | EET CF | 04/21/25 11:15       |
| Total/NA  | Analysis   | 9040C        |     | 1               | 451722       | W9YR    | EET CF | 04/16/25 17:21       |
| Total/NA  | Analysis   | 9251         |     | 1               | 452243       | ENB7    | EET CF | 04/21/25 16:49       |
| Total/NA  | Analysis   | I-3765-85    |     | 1               | 451943       | XJ7V    | EET CF | 04/17/25 14:49       |
| Total/NA  | Analysis   | SM 2320B     |     | 1               | 452099       | WZC8    | EET CF | 04/18/25 19:39       |

**Client Sample ID: MW-03**

**Lab Sample ID: 310-304355-2**

**Date Collected: 04/14/25 11:00**

**Matrix: Water**

**Date Received: 04/16/25 15:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Prep       | 3005A        |     |                 | 451923       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452401       | NFT2    | EET CF | 04/22/25 19:17       |
| Total/NA  | Analysis   | 9038         |     | 2               | 452218       | ENB7    | EET CF | 04/21/25 11:16       |
| Total/NA  | Analysis   | 9040C        |     | 1               | 451722       | W9YR    | EET CF | 04/16/25 17:20       |
| Total/NA  | Analysis   | 9251         |     | 1               | 452243       | ENB7    | EET CF | 04/21/25 16:50       |
| Total/NA  | Analysis   | I-3765-85    |     | 1               | 451943       | XJ7V    | EET CF | 04/17/25 14:49       |
| Total/NA  | Analysis   | SM 2320B     |     | 1               | 452099       | WZC8    | EET CF | 04/18/25 19:49       |

**Client Sample ID: MW-04**

**Lab Sample ID: 310-304355-3**

**Date Collected: 04/14/25 13:55**

**Matrix: Water**

**Date Received: 04/16/25 15:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Prep       | 3005A        |     |                 | 451925       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452401       | NFT2    | EET CF | 04/22/25 18:58       |
| Total/NA  | Analysis   | 9038         |     | 5               | 452363       | ENB7    | EET CF | 04/22/25 12:35       |
| Total/NA  | Analysis   | 9040C        |     | 1               | 451722       | W9YR    | EET CF | 04/16/25 17:22       |
| Total/NA  | Analysis   | 9251         |     | 1               | 452243       | ENB7    | EET CF | 04/21/25 16:50       |
| Total/NA  | Analysis   | I-3765-85    |     | 1               | 451943       | XJ7V    | EET CF | 04/17/25 14:49       |
| Total/NA  | Analysis   | SM 2320B     |     | 1               | 452099       | WZC8    | EET CF | 04/18/25 20:00       |

**Client Sample ID: MW-10**

**Lab Sample ID: 310-304355-4**

**Date Collected: 04/15/25 11:00**

**Matrix: Water**

**Date Received: 04/16/25 15:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Prep       | 3005A        |     |                 | 451925       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452401       | NFT2    | EET CF | 04/22/25 18:39       |
| Total/NA  | Prep       | 3005A        |     |                 | 451925       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 4               | 452481       | NFT2    | EET CF | 04/23/25 13:08       |
| Total/NA  | Analysis   | 9038         |     | 50              | 452364       | ENB7    | EET CF | 04/22/25 14:00       |

Eurofins Cedar Falls

## Lab Chronicle

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

**Client Sample ID: MW-10**

**Lab Sample ID: 310-304355-4**

**Date Collected: 04/15/25 11:00**

**Matrix: Water**

**Date Received: 04/16/25 15:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Analysis   | 9040C        |     | 1               | 451722       | W9YR    | EET CF | 04/16/25 17:25       |
| Total/NA  | Analysis   | 9251         |     | 1               | 452243       | ENB7    | EET CF | 04/21/25 16:50       |
| Total/NA  | Analysis   | I-3765-85    |     | 1               | 452041       | HE7K    | EET CF | 04/18/25 11:51       |
| Total/NA  | Analysis   | SM 2320B     |     | 1               | 452099       | WZC8    | EET CF | 04/18/25 23:56       |

**Client Sample ID: MW-15**

**Lab Sample ID: 310-304355-5**

**Date Collected: 04/14/25 15:15**

**Matrix: Water**

**Date Received: 04/16/25 15:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Prep       | 3005A        |     |                 | 451925       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452401       | NFT2    | EET CF | 04/22/25 18:41       |
| Total/NA  | Prep       | 3005A        |     |                 | 451925       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452481       | NFT2    | EET CF | 04/23/25 13:11       |
| Total/NA  | Analysis   | 9038         |     | 5               | 452364       | ENB7    | EET CF | 04/22/25 14:01       |
| Total/NA  | Analysis   | 9040C        |     | 1               | 451722       | W9YR    | EET CF | 04/16/25 17:18       |
| Total/NA  | Analysis   | 9251         |     | 1               | 452243       | ENB7    | EET CF | 04/21/25 16:51       |
| Total/NA  | Analysis   | I-3765-85    |     | 1               | 451943       | XJ7V    | EET CF | 04/17/25 14:49       |
| Total/NA  | Analysis   | SM 2320B     |     | 1               | 452099       | WZC8    | EET CF | 04/19/25 00:10       |

**Client Sample ID: MW-16**

**Lab Sample ID: 310-304355-6**

**Date Collected: 04/15/25 09:25**

**Matrix: Water**

**Date Received: 04/16/25 15:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Prep       | 3005A        |     |                 | 451925       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452401       | NFT2    | EET CF | 04/22/25 18:53       |
| Total/NA  | Prep       | 3005A        |     |                 | 451925       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 4               | 452481       | NFT2    | EET CF | 04/23/25 13:16       |
| Total/NA  | Analysis   | 9038         |     | 10              | 452364       | ENB7    | EET CF | 04/22/25 14:01       |
| Total/NA  | Analysis   | 9040C        |     | 1               | 451722       | W9YR    | EET CF | 04/16/25 17:24       |
| Total/NA  | Analysis   | 9251         |     | 10              | 452243       | ENB7    | EET CF | 04/21/25 16:51       |
| Total/NA  | Analysis   | I-3765-85    |     | 1               | 452073       | HE7K    | EET CF | 04/18/25 13:43       |
| Total/NA  | Analysis   | SM 2320B     |     | 1               | 452099       | WZC8    | EET CF | 04/19/25 00:21       |

**Client Sample ID: MW-17**

**Lab Sample ID: 310-304355-7**

**Date Collected: 04/15/25 13:40**

**Matrix: Water**

**Date Received: 04/16/25 15:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Prep       | 3005A        |     |                 | 451923       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452401       | NFT2    | EET CF | 04/22/25 19:56       |
| Total/NA  | Prep       | 3005A        |     |                 | 451923       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452481       | NFT2    | EET CF | 04/23/25 13:25       |

Eurofins Cedar Falls

# Lab Chronicle

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

**Client Sample ID: MW-17**

**Date Collected: 04/15/25 13:40**

**Date Received: 04/16/25 15:15**

**Lab Sample ID: 310-304355-7**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Analysis   | 9038         |     | 5               | 452364       | ENB7    | EET CF | 04/22/25 14:02       |
| Total/NA  | Analysis   | 9040C        |     | 1               | 451722       | W9YR    | EET CF | 04/16/25 17:26       |
| Total/NA  | Analysis   | 9251         |     | 1               | 452243       | ENB7    | EET CF | 04/21/25 16:52       |
| Total/NA  | Analysis   | I-3765-85    |     | 1               | 451961       | XJ7V    | EET CF | 04/17/25 20:08       |
| Total/NA  | Analysis   | SM 2320B     |     | 1               | 452099       | WZC8    | EET CF | 04/19/25 00:37       |

**Client Sample ID: MW-18**

**Date Collected: 04/15/25 12:30**

**Date Received: 04/16/25 15:15**

**Lab Sample ID: 310-304355-8**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab    | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA  | Prep       | 3005A        |     |                 | 451923       | QTZ5    | EET CF | 04/18/25 09:30       |
| Total/NA  | Analysis   | 6020B        |     | 1               | 452401       | NFT2    | EET CF | 04/22/25 19:41       |
| Total/NA  | Analysis   | 9038         |     | 5               | 452364       | ENB7    | EET CF | 04/22/25 14:02       |
| Total/NA  | Analysis   | 9040C        |     | 1               | 451722       | W9YR    | EET CF | 04/16/25 17:23       |
| Total/NA  | Analysis   | 9251         |     | 1               | 452243       | ENB7    | EET CF | 04/21/25 16:52       |
| Total/NA  | Analysis   | I-3765-85    |     | 1               | 452041       | HE7K    | EET CF | 04/18/25 11:51       |
| Total/NA  | Analysis   | SM 2320B     |     | 1               | 452099       | WZC8    | EET CF | 04/19/25 00:48       |

## Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

Laboratory: Eurofins Cedar Falls

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

| Authority                                                                                                                                                                                                    | Program     | Identification Number | Expiration Date |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|-----------------|
| Iowa                                                                                                                                                                                                         | State       | 007                   | 12-01-25        |
| <p>The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.</p> |             |                       |                 |
| Analysis Method                                                                                                                                                                                              | Prep Method | Matrix                | Analyte         |
| 6020B                                                                                                                                                                                                        | 3005A       | Water                 | Lithium         |

## Method Summary

Client: Stanley Consultants Inc  
Project/Site: GPC Landfill Sampling

Job ID: 310-304355-1

| Method    | Method Description                             | Protocol | Laboratory |
|-----------|------------------------------------------------|----------|------------|
| 6020B     | Metals (ICP/MS)                                | SW846    | EET CF     |
| 9038      | Sulfate (Turbidimetric)                        | SW846    | EET CF     |
| 9040C     | pH                                             | SW846    | EET CF     |
| 9251      | Chloride (Colormetric, Automated Ferricyanide) | SW846    | EET CF     |
| I-3765-85 | Residue, Non-filterable (TSS)                  | USGS     | EET CF     |
| SM 2320B  | Alkalinity                                     | SM       | EET CF     |
| 3005A     | Preparation, Total Metals                      | SW846    | EET CF     |

### Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

### Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



### Cooler/Sample Receipt and Temperature Log Form

|                                                                                                                                                                                                                                                                                                                                                                   |                                         |                                                                     |                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Client Information</b>                                                                                                                                                                                                                                                                                                                                         |                                         |                                                                     |                                                                                                          |
| Client: <u>Stanley Consultants</u>                                                                                                                                                                                                                                                                                                                                |                                         |                                                                     |                                                                                                          |
| City/State:                                                                                                                                                                                                                                                                                                                                                       | CITY <u>Cornville</u>                   | STATE <u>IA</u>                                                     | Project:                                                                                                 |
| <b>Receipt Information</b>                                                                                                                                                                                                                                                                                                                                        |                                         |                                                                     |                                                                                                          |
| Date/Time Received:                                                                                                                                                                                                                                                                                                                                               | DATE <u>4.16.21</u>                     | TIME <u>1515</u>                                                    | Received By: <u>PH BP</u>                                                                                |
| Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee<br><input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____ |                                         |                                                                     |                                                                                                          |
| <b>Condition of Cooler/Containers</b>                                                                                                                                                                                                                                                                                                                             |                                         |                                                                     |                                                                                                          |
| Sample(s) received in Cooler?                                                                                                                                                                                                                                                                                                                                     |                                         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes: Cooler ID: _____                                                                                 |
| Multiple Coolers?                                                                                                                                                                                                                                                                                                                                                 |                                         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes: Cooler # <u>1</u> of <u>2</u>                                                                    |
| Cooler Custody Seals Present?                                                                                                                                                                                                                                                                                                                                     |                                         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Custody Seals Present?                                                                                                                                                                                                                                                                                                                                     |                                         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| Trip Blank Present?                                                                                                                                                                                                                                                                                                                                               |                                         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes: Which VOA samples are in cooler? ↓                                                               |
| <b>Temperature Record</b>                                                                                                                                                                                                                                                                                                                                         |                                         |                                                                     |                                                                                                          |
| Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE                                                                                                                                                                       |                                         |                                                                     |                                                                                                          |
| Thermometer ID: <u>AA</u>                                                                                                                                                                                                                                                                                                                                         |                                         | Correction Factor (°C): <u>0</u>                                    |                                                                                                          |
| • Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature                                                                                                                                                                                                                                    |                                         |                                                                     |                                                                                                          |
| Uncorrected Temp (°C):                                                                                                                                                                                                                                                                                                                                            |                                         | Corrected Temp (°C):                                                |                                                                                                          |
| • Sample Container Temperature                                                                                                                                                                                                                                                                                                                                    |                                         |                                                                     |                                                                                                          |
| Container(s) used:                                                                                                                                                                                                                                                                                                                                                | CONTAINER 1 <u>Plastic 250ml Nitric</u> |                                                                     | CONTAINER 2                                                                                              |
| Uncorrected Temp (°C):                                                                                                                                                                                                                                                                                                                                            | <u>2.6</u>                              |                                                                     |                                                                                                          |
| Corrected Temp (°C):                                                                                                                                                                                                                                                                                                                                              | <u>2.6</u>                              |                                                                     |                                                                                                          |
| <b>Exceptions Noted</b>                                                                                                                                                                                                                                                                                                                                           |                                         |                                                                     |                                                                                                          |
| 1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No<br>a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                               |                                         |                                                                     |                                                                                                          |
| 2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                  |                                         |                                                                     |                                                                                                          |
| NOTE: If yes, contact PM before proceeding. If no, proceed with login                                                                                                                                                                                                                                                                                             |                                         |                                                                     |                                                                                                          |
| <b>Additional Comments</b>                                                                                                                                                                                                                                                                                                                                        |                                         |                                                                     |                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                   |                                         |                                                                     |                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                   |                                         |                                                                     |                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                   |                                         |                                                                     |                                                                                                          |

### Cooler/Sample Receipt and Temperature Log Form

|                                                                                                                                                                                                                                                                                                                                                                   |                       |                                  |                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------|--------------------------|
| <b>Client Information</b>                                                                                                                                                                                                                                                                                                                                         |                       |                                  |                          |
| Client: <u>Stanley Consultants</u>                                                                                                                                                                                                                                                                                                                                |                       |                                  |                          |
| City/State:                                                                                                                                                                                                                                                                                                                                                       | CITY <u>Cornville</u> | STATE <u>IA</u>                  | Project:                 |
| <b>Receipt Information</b>                                                                                                                                                                                                                                                                                                                                        |                       |                                  |                          |
| Date/Time Received:                                                                                                                                                                                                                                                                                                                                               | DATE <u>4.16.24</u>   | TIME <u>15:15</u>                | Received By <u>PH BP</u> |
| Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee<br><input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____ |                       |                                  |                          |
| <b>Condition of Cooler/Containers</b>                                                                                                                                                                                                                                                                                                                             |                       |                                  |                          |
| Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____                                                                                                                                                                                                                                        |                       |                                  |                          |
| Multiple Coolers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # <u>2</u> of <u>2</u>                                                                                                                                                                                                                                       |                       |                                  |                          |
| Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                   |                       |                                  |                          |
| Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                   |                       |                                  |                          |
| Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓                                                                                                                                                                                                                                |                       |                                  |                          |
| <b>Temperature Record</b>                                                                                                                                                                                                                                                                                                                                         |                       |                                  |                          |
| Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE                                                                                                                                                                       |                       |                                  |                          |
| Thermometer ID: <u>AA</u>                                                                                                                                                                                                                                                                                                                                         |                       | Correction Factor (°C): <u>0</u> |                          |
| • Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature                                                                                                                                                                                                                                    |                       |                                  |                          |
| Uncorrected Temp (°C): <u>0.3</u>                                                                                                                                                                                                                                                                                                                                 |                       | Corrected Temp (°C): <u>0.3</u>  |                          |
| • Sample Container Temperature                                                                                                                                                                                                                                                                                                                                    |                       |                                  |                          |
| Container(s) used:                                                                                                                                                                                                                                                                                                                                                | CONTAINER 1           |                                  | CONTAINER 2              |
| Uncorrected Temp (°C):                                                                                                                                                                                                                                                                                                                                            |                       |                                  |                          |
| Corrected Temp (°C):                                                                                                                                                                                                                                                                                                                                              |                       |                                  |                          |
| <b>Exceptions Noted</b>                                                                                                                                                                                                                                                                                                                                           |                       |                                  |                          |
| 1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                         |                       |                                  |                          |
| a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                            |                       |                                  |                          |
| 2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                  |                       |                                  |                          |
| NOTE If yes, contact PM before proceeding If no, proceed with login                                                                                                                                                                                                                                                                                               |                       |                                  |                          |
| <b>Additional Comments</b>                                                                                                                                                                                                                                                                                                                                        |                       |                                  |                          |
| <u>Missing MW-05 BP</u>                                                                                                                                                                                                                                                                                                                                           |                       |                                  |                          |

| Regulatory Program: <input type="checkbox"/> RCRA <input type="checkbox"/> NPDES <input type="checkbox"/> DW <input type="checkbox"/> Other |         | Project Manager: <u>Stanley Consultants</u>  |   | Site Contact: <u>Chr's Page</u>              |   | Date: <u>04/15/2025</u>      |  | COC No <u>1</u> of <u>1</u> COCs |  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------------------------|---|----------------------------------------------|---|------------------------------|--|----------------------------------|--|
| Client Contact                                                                                                                              |         | Tel/Email: <u>stanley@stanley.com</u>        |   | Lab Contact:                                 |   | Carrier:                     |  | Sampler: <u>Cartis Schwabert</u> |  |
| Company Name <u>Stanley Consultants</u>                                                                                                     |         | Address <u>2650 Cross Park Rd Suite 1000</u> |   | City/State/Zip <u>Cornellville, PA 15244</u> |   | Phone <u>(312) 580-6260</u>  |  | Fax:                             |  |
| Project Name <u>GRC</u>                                                                                                                     |         | Site                                         |   | PO #                                         |   | Job / SDG No                 |  | For Lab Use Only:                |  |
| Sample Identification                                                                                                                       |         | Sample Date                                  |   | Sample Time                                  |   | Sample Type (C=Comp, G=Grab) |  | Matrix                           |  |
|                                                                                                                                             |         |                                              |   |                                              |   |                              |  |                                  |  |
| MW-02                                                                                                                                       | 4/14/25 | 12:25                                        | G | H <sub>2</sub> O                             | 4 |                              |  |                                  |  |
| MW-03                                                                                                                                       | 4/14/25 | 11:00                                        | G | ↓                                            | ↓ |                              |  |                                  |  |
| MW-04                                                                                                                                       | 4/14/25 | 13:55                                        | G | ↓                                            | ↓ |                              |  |                                  |  |
| MW-05                                                                                                                                       | 4/15/25 | 11:00                                        | G | H <sub>2</sub> O                             | 4 |                              |  |                                  |  |
| MW-10                                                                                                                                       | 4/14/25 | 15:15                                        | G | ↓                                            | ↓ |                              |  |                                  |  |
| MW-15                                                                                                                                       | 4/15/25 | 09:25                                        | G | ↓                                            | ↓ |                              |  |                                  |  |
| MW-16                                                                                                                                       | 4/15/25 | 13:40                                        | G | ↓                                            | ↓ |                              |  |                                  |  |
| MW-17                                                                                                                                       | 4/15/25 | 18:30                                        | G | ↓                                            | ↓ |                              |  |                                  |  |
| MW-18                                                                                                                                       | 4/15/25 | 18:30                                        | G | ↓                                            | ↓ |                              |  |                                  |  |

Preservation Used: 1= Ice, 2= HCl, 3= H<sub>2</sub>SO<sub>4</sub>, 4= HNO<sub>3</sub>, 5= NaOH, 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Special Instructions/QC Requirements & Comments: MW-05 NO sample submitted

| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No |  | Cooler Temp (°C) Obs'd _____ |  | Cor'd _____              |  | Therm ID No _____               |  |
|--------------------------------------------------------------------------------|--|------------------------------|--|--------------------------|--|---------------------------------|--|
| Relinquished by: <u>[Signature]</u>                                            |  | Received by: <u>BP</u>       |  | Company: <u>Envotins</u> |  | Date/Time: <u>4/16/25 15:15</u> |  |
| Relinquished by: <u>[Signature]</u>                                            |  | Received by:                 |  | Company:                 |  | Date/Time:                      |  |
| Relinquished by: <u>[Signature]</u>                                            |  | Received in Laboratory by:   |  | Company:                 |  | Date/Time:                      |  |

Consultant Stanley Consultants Sampling Date 04 /14/25 Project # ---  
 Project Manager Trenton Humphrey Sampled By Randy Gavin / Tyler Merritt

| WELL NO.         | MW-02 | MW-03 | MW-04 | MW-05 | MW-10 | MW-15 | MW-16 | MW-17 | MW-18 |  |  |  |  |  |  |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|
| Arsenic, total   | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| barium, total    | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| copper, total    | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| lead, total      | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| magnesium, total | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| zinc, total      | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| iron, total      | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| Beryllium, total | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| cobalt, total    | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| manganese, total | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| Selenium, total  | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| chloride         | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| sulfate          | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| TSS              | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
| pH               | X     | X     | X     | X     | X     | X     | X     | X     | X     |  |  |  |  |  |  |
|                  |       |       |       |       |       |       |       |       |       |  |  |  |  |  |  |

Note: MDL for As 0.001 mg/L, Lithium:  $\leq 0.014$  mg/L, Cobalt:  $\leq 0.0028$  mg/L

Sampler: Tyler Merritt Shipping Date: 04/16/25

Page 1 of 2,  
SEE PAGE 2

## Login Sample Receipt Checklist

Client: Stanley Consultants Inc

Job Number: 310-304355-1

**Login Number: 304355**

**List Source: Eurofins Cedar Falls**

**List Number: 1**

**Creator: Hirsch, Preston**

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

## Appendix D DNR Sampling Forms and Documentation

DNR Sampling Forms

Low Flow Sampling Forms

# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-02  
Upgradient ☒ Downgradient \_\_\_\_\_  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☒ Yes ☐ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 726.03 Ground Elevation 723.57

Depth of Well 64.80 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time       | Depth to Groundwater | Groundwater Elevation |
|-----------------|-----------------|----------------------|-----------------------|
| Before Purging  | 4/14/2025 11:07 | 57.27                | 668.76                |
| *After Purging  | 4/14/2025 12:22 | 57.29                | 668.74                |
| *Before Purging | 4/14/2025 12:22 | 57.29                | 668.74                |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) 1.27

No. of Well Volumes (based on current water level) 1.03

Was well pumped/bailed dry? No

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9<sup>th</sup> St, Des Moines IA 50319  
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

**\*D. FIELD MEASUREMENT****Weather Conditions** Clear, 57<sup>0</sup>, WNW winds 20-30 mph, 29.9"Hg**Field Measurements (after stabilization):****Temperature** 14.48 **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** 7.12**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** 679.85 **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Low flow protocol.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2025**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

\*Omit if only measuring groundwater elevations.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9<sup>th</sup> St, Des Moines IA 50319  
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-03  
Upgradient X Downgradient \_\_\_\_\_  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☒ Yes ☐ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 726.26 Ground Elevation 723.89

Depth of Well 196.00 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time       | Depth to Groundwater | Groundwater Elevation |
|-----------------|-----------------|----------------------|-----------------------|
| Before Purging  | 4/14/2025 10:07 | 176.70               | 549.56                |
| *After Purging  | 4/14/2025 10:59 | 176.80               | 549.46                |
| *Before Purging | 4/14/2025 10:59 | 176.80               | 549.46                |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) 2.17

No. of Well Volumes (based on current water level) 0.69

Was well pumped/bailed dry? No

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9<sup>th</sup> St, Des Moines IA 50319  
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

**\*D. FIELD MEASUREMENT****Weather Conditions** Partly cloudy, 54<sup>0</sup>, WNW winds 25-35 mph, 29.9."Hg**Field Measurements (after stabilization):****Temperature** 12.65 **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** 6.77**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** 839.82 **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Low flow protocol.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2024**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

\*Omit if only measuring groundwater elevations.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9<sup>th</sup> St, Des Moines IA 50319  
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-04  
Upgradient \_\_\_\_\_ Downgradient X  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☒ Yes ☐ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 707.84 Ground Elevation 705.75

Depth of Well 55.50 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time       | Depth to Groundwater | Groundwater Elevation |
|-----------------|-----------------|----------------------|-----------------------|
| Before Purging  | 4/14/2025 13:09 | 46.88                | 660.96                |
| *After Purging  | 4/14/2025 13:51 | 46.95                | 660.89                |
| *Before Purging | 4/14/2025 13:51 | 46.95                | 660.89                |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) 0.95

No. of Well Volumes (based on current water level) 0.68

Was well pumped/bailed dry? No

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9<sup>th</sup> St, Des Moines IA 50319  
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

**\*D. FIELD MEASUREMENT****Weather Conditions** Partly cloudy, 60<sup>0</sup>, W winds 25-35 mph, 29.9"Hg**Field Measurements (after stabilization):****Temperature** 15.57 **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** 6.04**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** 1014.1 **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Low flow protocol.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2025**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

\*Omit if only measuring groundwater elevations.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9<sup>th</sup> St, Des Moines IA 50319  
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-05  
Upgradient \_\_\_\_\_ Downgradient X  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☐ Yes ☒ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 567.86 Ground Elevation 565.86

Depth of Well 33.20 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time       | Depth to Groundwater | Groundwater Elevation |
|-----------------|-----------------|----------------------|-----------------------|
| Before Purging  | 4/14/2025 13:09 | 30.71                | 537.15                |
| *After Purging  |                 |                      |                       |
| *Before Purging |                 |                      |                       |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) ---

No. of Well Volumes (based on current water level) ---

Was well pumped/bailed dry? ---

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9<sup>th</sup> St, Des Moines IA 50319  
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

**\*D. FIELD MEASUREMENT****Weather Conditions** Partly cloudy, 60<sup>0</sup>, W winds 25-35 mph, 29.9"Hg**Field Measurements (after stabilization):****Temperature** --- **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** ---**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** --- **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Insufficient volume.Perched.NO SAMPLE SUBMITTED.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2025**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)

**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

\*Omit if only measuring groundwater elevations.

Please mail completed form to: Iowa Department of Natural Resources, Land Quality Bureau, 502 E 9<sup>th</sup> St, Des Moines IA 50319  
Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-10  
Upgradient \_\_\_\_\_ Downgradient X  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☒ Yes ☐ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 557.79 Ground Elevation 575.30

Depth of Well 57.80 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time       | Depth to Groundwater | Groundwater Elevation |
|-----------------|-----------------|----------------------|-----------------------|
| Before Purging  | 4/15/2025 10:13 | 46.79                | 511                   |
| *After Purging  | 4/15/2025 10:58 | 46.81                | 510.98                |
| *Before Purging | 4/15/2025 10:58 | 46.81                | 510.98                |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) 1.08

No. of Well Volumes (based on current water level) 0.60

Was well pumped/bailed dry? No

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

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Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

**\*D. FIELD MEASUREMENT****Weather Conditions** Clear, 44<sup>0</sup>, WNW winds 20-35 mph, 30.1"Hg**Field Measurements (after stabilization):****Temperature** 13.10 **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** 6.68**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** 2,545.1 **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Low flow protocol.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2025**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

\*Omit if only measuring groundwater elevations.

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# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-15  
Upgradient \_\_\_\_\_ Downgradient X  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☒ Yes ☐ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 568.00 Ground Elevation 565.85

Depth of Well 45.35 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time       | Depth to Groundwater | Groundwater Elevation |
|-----------------|-----------------|----------------------|-----------------------|
| Before Purging  | 4/14/2025 14:38 | 36.77                | 531.23                |
| *After Purging  | 4/14/2025 15:11 | 36.78                | 531.22                |
| *Before Purging | 4/14/2025 15:11 | 36.78                | 531.22                |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) 0.71

No. of Well Volumes (based on current water level) 0.51

Was well pumped/bailed dry? No

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

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Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

**\*D. FIELD MEASUREMENT****Weather Conditions** Partly cloudy, 62<sup>0</sup>, W winds 25-35 mph, 29.9"Hg**Field Measurements (after stabilization):****Temperature** 14.68 **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** 6.79**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** 1,108.70 **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Low flow protocol.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2025**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

\*Omit if only measuring groundwater elevations.

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# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-16  
Upgradient \_\_\_\_\_ Downgradient X  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☒ Yes ☐ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 568.19 Ground Elevation 565.31

Depth of Well 52.60 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time      | Depth to Groundwater | Groundwater Elevation |
|-----------------|----------------|----------------------|-----------------------|
| Before Purging  | 4/15/2025 8:33 | 37.12                | 531.07                |
| *After Purging  | 4/15/2025 9:21 | 37.20                | 530.99                |
| *Before Purging | 4/15/2025 9:21 | 37.20                | 530.99                |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) 1.22

No. of Well Volumes (based on current water level) 0.48

Was well pumped/bailed dry? No

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

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Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

**\*D. FIELD MEASUREMENT****Weather Conditions** Clear, 44<sup>0</sup>, WNW winds 25-35 mph, 30.1"Hg**Field Measurements (after stabilization):****Temperature** 13.18 **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** 6.50**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** 2,549.7 **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Low flow protocol.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2025**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

\*Omit if only measuring groundwater elevations.

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# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-17  
Upgradient \_\_\_\_\_ Downgradient X  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☒ Yes ☐ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 554.67 Ground Elevation 551.11

Depth of Well 63.00 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time       | Depth to Groundwater | Groundwater Elevation |
|-----------------|-----------------|----------------------|-----------------------|
| Before Purging  | 4/15/2025 12:57 | 24.06                | 530.61                |
| *After Purging  | 4/15/2025 13:36 | 24.06                | 530.61                |
| *Before Purging | 4/15/2025 13:33 | 24.06                | 530.61                |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) 0.95

No. of Well Volumes (based on current water level) 0.15

Was well pumped/bailed dry? No

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

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Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, [nina.booker@dnr.iowa.gov](mailto:nina.booker@dnr.iowa.gov)

**\*D. FIELD MEASUREMENT****Weather Conditions** Clear, 51<sup>0</sup>, WNW winds 2-30 mph, 30.1"Hg**Field Measurements (after stabilization):****Temperature** 14.68 **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** 6.85**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** 1,048.70 **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Low flow protocol.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2025**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

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# GROUNDWATER SAMPLING AND/OR GROUNDWATER ELEVATION MEASUREMENT FORM

Site Name Grain Processing Corporation CCR Landfill Permit No. 58-SDP-03-92P-CCR  
Monitoring Well/Piezometer No. MW-18  
Upgradient \_\_\_\_\_ Downgradient X  
Name of person sampling Randy Gavin & Tyler Merritt

## A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? (please check) ☒ Yes ☐ No

If no, explain \_\_\_\_\_

Standing Water or Litter? (please check) ☐ Yes ☒ No

If yes, explain \_\_\_\_\_

## B. GROUNDWATER ELEVATION MEASUREMENT ( $\pm 0.01$ foot, MSL)

Elevation:

Top of inner well casing 551.31 Ground Elevation 548.54

Depth of Well 53.20 Inside Casing Diameter (in inches) 2.00

Equipment Used Solinst 101 P7 Water Level Meter

Groundwater Level ( $\pm 0.01$  foot below top of inner casing, MSL):

|                 | Date/Time       | Depth to Groundwater | Groundwater Elevation |
|-----------------|-----------------|----------------------|-----------------------|
| Before Purging  | 4/15/2025 11:34 | 20.92                | 530.39                |
| *After Purging  | 4/15/2025 12:27 | 20.93                | 530.38                |
| *Before Purging | 4/15/2025 12:27 | 20.93                | 530.38                |

## \*C. WELL PURGING

Quantity of Water Removed from Well (gallons) 1.27

No. of Well Volumes (based on current water level) 0.24

Was well pumped/bailed dry? No

Equipment used:

Bailer type \_\_\_\_\_ Dedicated Bailer? \_\_\_\_\_

Pump type QED Sample Pro Bladder Pump Dedicated Pump? No

If not dedicated, method of cleaning Liquinox detergent scrub, then a triple deionized water rinse

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Questions? Call or Email: Nina Booker Environmental Engineer Sr., 515-725-8309, nina.booker@dnr.iowa.gov

**\*D. FIELD MEASUREMENT****Weather Conditions** Partly cloudy, 47<sup>0</sup>, NW winds 20-30 mph, 30.1"Hg**Field Measurements (after stabilization):****Temperature** 12.79 **Units** °C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**pH** 6.98**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Specific Conductance** 885.93 **Units** µmhos/cm @ 25°C**Equipment Used** In-Situ AquaTroll 500 Multiparameter Water Quality Meter**Comments**Low flow protocol.**Certification**

I certify under penalty of law I believe the information reported above is true, accurate and complete.

**Signature**  **Randy Gavin** **Date** 4/25/2025**Telephone** (563) 852-5105 **Fax** ---- **Email** [oatech@netins.net](mailto:oatech@netins.net)**NOTE:** Attach Laboratory Report and 8 ½" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

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LOW FLOW SAMPLING FORM

DATE4/14/2025

WELL IDMW-02

SAMPLE DATE / TIME4/14/2025 12:25

SITEGPC Landfill

DTW57.27

NOTE

PROJECT #---

WELL DEPTH64.80

WEATHERClear, 57°, WNW winds 20-30 mph, 29.9"Hg

PUMP TYPEQED Bladder

DEPTH TO INTAKE61'

| TIME  | PURGE<br>RATE(ml) | VOLUME<br>REMOVED(ml) | DTW   | TEMP  | Ph   | ORP   | SpecCond | Turbidity | DO   | NOTES            |                 |  |
|-------|-------------------|-----------------------|-------|-------|------|-------|----------|-----------|------|------------------|-----------------|--|
| 11:34 |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
| 11:42 | 100               | 800                   | 57.29 | 14.73 | 7.09 | 164.8 | 684.06   | 54.63     | 1.88 |                  |                 |  |
| 11:47 | 100               | 1300                  | 57.30 | 14.24 | 7.10 | 160.6 | 684.39   | 35.10     | 1.44 |                  |                 |  |
| 11:52 | 100               | 1800                  | 57.31 | 14.06 | 7.11 | 156.0 | 683.55   | 23.17     | 1.32 |                  |                 |  |
| 11:57 | 100               | 2300                  | 57.29 | 14.21 | 7.07 | 154.4 | 683.00   | 12.83     | 1.32 |                  |                 |  |
| 12:02 | 100               | 2800                  | 57.29 | 14.82 | 7.05 | 155.7 | 684.32   | 13.73     | 1.41 |                  |                 |  |
| 12:07 | 100               | 3300                  | 57.31 | 14.47 | 7.09 | 153.8 | 678.64   | 6.43      | 1.41 |                  |                 |  |
| 12:12 | 100               | 3800                  | 57.29 | 13.58 | 7.11 | 157.6 | 680.12   | 6.87      | 1.57 |                  |                 |  |
| 12:17 | 100               | 4300                  | 57.29 | 14.44 | 7.11 | 154.8 | 681.74   | 6.54      | 1.64 |                  |                 |  |
| 12:22 | 100               | 4800                  | 57.29 | 14.48 | 7.12 | 153.2 | 679.85   | 6.72      | 1.69 |                  |                 |  |
| 12:52 |                   |                       | 57.29 |       |      |       |          |           |      | After Sampling   |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      |                  |                 |  |
|       |                   |                       |       |       |      |       |          |           |      | Preservative     | # of Containers |  |
|       |                   |                       |       |       |      |       |          |           |      | HCl              |                 |  |
|       |                   |                       |       |       |      |       |          |           |      | HNO <sub>3</sub> | 1               |  |
|       |                   |                       |       |       |      |       |          |           |      | NaOH             |                 |  |
|       |                   |                       |       |       |      |       |          |           |      | None             | 3               |  |

0.5-5.0 min200-500 ml ---minimize ---+/- 0.1+/-10 mV+/- 3%+/- 10%+/- 10%Limits

or +/-0.2 mg.

|           |                                                   |            |             |                    |                 |
|-----------|---------------------------------------------------|------------|-------------|--------------------|-----------------|
| DATE      | 4/14/2025                                         | WELL ID    | MW-03       | SAMPLE DATE / TIME | 4/14/2025 11:00 |
| SITE      | GPC Landfill                                      | DTW        | 176.70      | NOTE               |                 |
| PROJECT # | - - -                                             | WELL DEPTH | 196.00      |                    |                 |
| WEATHER   | Partly cloudy, 54°, WNW winds 25-35 mph, 29.9."Hg | PUMP TYPE  | QED Bladder | DEPTH TO INTAKE    | 191'            |

|              |            |     |          |     |         |          |        |         |         |                                  |
|--------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|----------------------------------|
| 0.5-5.0 min  | 200-500 ml | --- | minimize | --- | +/- 0.1 | +/-10 mV | +/- 3% | +/- 10% | +/- 10% | Limits                           |
| or +/-0.2 mg |            |     |          |     |         |          |        |         |         | <b><u>100 PSI, 2 CPM, 56</u></b> |

|           |                                                |            |             |                    |                 |
|-----------|------------------------------------------------|------------|-------------|--------------------|-----------------|
| DATE      | 4/14/2025                                      | WELL ID    | MW-04       | SAMPLE DATE / TIME | 4/14/2025 13:55 |
| SITE      | GPC Landfill                                   | DTW        | 46.88       | NOTE               |                 |
| PROJECT # | - - -                                          | WELL DEPTH | 55.50       |                    |                 |
| WEATHER   | Partly cloudy, 60°, W winds 25-35 mph, 29.9"Hg | PUMP TYPE  | QED Bladder | DEPTH TO INTAKE    | 50'             |

|             |            |     |          |     |         |          |        |         |         |                        |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|
| 0.5-5.0 min | 200-500 ml | --- | minimize | --- | +/- 0.1 | +/-10 mV | +/- 3% | +/- 10% | +/- 10% | Limits<br>or +/-0.2 mg |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|

|           |                                                |            |             |                    |                     |
|-----------|------------------------------------------------|------------|-------------|--------------------|---------------------|
| DATE      | 4/14/2025                                      | WELL ID    | MW-05       | SAMPLE DATE / TIME | - - -               |
| SITE      | GPC Landfill                                   | DTW        | 30.71       | NOTE               | No Sample Submitted |
| PROJECT # | - - -                                          | WELL DEPTH | 33.20       |                    |                     |
| WEATHER   | Partly cloudy, 60°, W winds 25-35 mph, 29.9"Hg | PUMP TYPE  | QED Bladder | DEPTH TO INTAKE    | 32.20'(on bottom)   |

|             |            |     |          |     |         |          |        |         |         |                        |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|
| 0.5-5.0 min | 200-500 ml | --- | minimize | --- | +/- 0.1 | +/-10 mV | +/- 3% | +/- 10% | +/- 10% | Limits<br>or +/-0.2 mg |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|

|           |                                                       |            |             |                    |                 |
|-----------|-------------------------------------------------------|------------|-------------|--------------------|-----------------|
| DATE      | 4/15/2024                                             | WELL ID    | MW-10       | SAMPLE DATE / TIME | 4/15/2025 11:00 |
| SITE      | GPC Landfill                                          | DTW        | 46.79       | NOTE               |                 |
| PROJECT # | - - -                                                 | WELL DEPTH | 57.80       |                    |                 |
| WEATHER   | Clear, 44 <sup>o</sup> , WNW winds 20-35 mph, 30.1"Hg | PUMP TYPE  | QED Bladder | DEPTH TO INTAKE    | 52'             |

|             |            |     |          |     |         |          |        |         |         |                        |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|
| 0.5-5.0 min | 200-500 ml | --- | minimize | --- | +/- 0.1 | +/-10 mV | +/- 3% | +/- 10% | +/- 10% | Limits<br>or +/-0.2 mg |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|

|           |                                                            |            |             |                    |                 |
|-----------|------------------------------------------------------------|------------|-------------|--------------------|-----------------|
| DATE      | 4/14/2025                                                  | WELL ID    | MW-15       | SAMPLE DATE / TIME | 4/14/2025 15:15 |
| SITE      | GPC Landfill                                               | DTW        | 36.77       | NOTE               |                 |
| PROJECT # | - - -                                                      | WELL DEPTH | 45.35       |                    |                 |
| WEATHER   | Partly cloudy, 62 <sup>o</sup> , W winds25-35 mph, 29.9"Hg | PUMP TYPE  | QED Bladder | DEPTH TO INTAKE    | 41'             |

|             |            |     |          |     |         |          |        |         |         |                        |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|
| 0.5-5.0 min | 200-500 ml | --- | minimize | --- | +/- 0.1 | +/-10 mV | +/- 3% | +/- 10% | +/- 10% | Limits<br>or +/-0.2 mg |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|

|           |                                                       |            |             |                    |                |
|-----------|-------------------------------------------------------|------------|-------------|--------------------|----------------|
| DATE      | 4/15/2025                                             | WELL ID    | MW-16       | SAMPLE DATE / TIME | 4/15/2025 9:25 |
| SITE      | GPC Landfill                                          | DTW        | 37.12       | NOTE               |                |
| PROJECT # | - - -                                                 | WELL DEPTH | 52.60       |                    |                |
| WEATHER   | Clear, 44 <sup>o</sup> , WNW winds 25-35 mph, 30.1"Hg | PUMP TYPE  | QED Bladder | DEPTH TO INTAKE    | 47'            |

|             |            |     |          |     |         |          |        |         |         |                        |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|
| 0.5-5.0 min | 200-500 ml | --- | minimize | --- | +/- 0.1 | +/-10 mV | +/- 3% | +/- 10% | +/- 10% | Limits<br>or +/-0.2 mg |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|

|           |                                         |            |             |                    |                 |
|-----------|-----------------------------------------|------------|-------------|--------------------|-----------------|
| DATE      | 4/15/2025                               | WELL ID    | MW-17       | SAMPLE DATE / TIME | 4/15/2025 13:40 |
| SITE      | GPC Landfill                            | DTW        | 24.06       | NOTE               |                 |
| PROJECT # | - - -                                   | WELL DEPTH | 63.00       |                    |                 |
| WEATHER   | Clear, 51°, WNW winds 2-30 mph, 30.1"Hg | PUMP TYPE  | QED Bladder | DEPTH TO INTAKE    | 55'             |

|             |            |     |          |     |         |          |        |         |         |                        |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|
| 0.5-5.0 min | 200-500 ml | --- | minimize | --- | +/- 0.1 | +/-10 mV | +/- 3% | +/- 10% | +/- 10% | Limits<br>or +/-0.2 mg |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|

|           |                                                              |            |             |                    |                 |
|-----------|--------------------------------------------------------------|------------|-------------|--------------------|-----------------|
| DATE      | 4/15/2025                                                    | WELL ID    | MW-18       | SAMPLE DATE / TIME | 4/15/2025 12:30 |
| SITE      | GPC Landfill                                                 | DTW        | 20.92       | NOTE               |                 |
| PROJECT # | - - -                                                        | WELL DEPTH | 53.20       |                    |                 |
| WEATHER   | Partly cloudy, 47 <sup>o</sup> , NW winds 20-30 mph, 30.1"Hg | PUMP TYPE  | QED Bladder | DEPTH TO INTAKE    | 48'             |

|             |            |     |          |     |         |          |        |         |         |                        |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|
| 0.5-5.0 min | 200-500 ml | --- | minimize | --- | +/- 0.1 | +/-10 mV | +/- 3% | +/- 10% | +/- 10% | Limits<br>or +/-0.2 mg |
|-------------|------------|-----|----------|-----|---------|----------|--------|---------|---------|------------------------|

## Appendix E      Facility Inspections

### Semiannual Inspection Report

## MEMORANDUM

**To: Record**

**From: Mackenzie Holladay- Environmental Specialist**

**Date: March 11, 2025**

**Re: CCR Semi-Annual Landfill Visual Inspection**

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I visited the landfill at about 1:45pm to complete a semi-annual visual inspection. The weather was mostly sunny, 60 degrees F, and winds from the northeast at about 15 mph. During the visual inspection of the landfill the following were observed:

- Standing water in the north retention area at the entrance, from last week's precipitation and winter thaw.
- No trees were visible on the cap of the landfill.
  - Trees are still located around the pond area on the north side of the landfill. A flock of mallards were resting in the pond and flew away when I was inspecting.
- No signs of animals creating homes/burrows on the cap of the landfill.
  - Animal fecal matter found multiple times throughout the inspection.
- No visible signs of stressed vegetation on the property.
- No visible cracks, cave-ins, or punctures to the landfill cap.
  - Minor areas of erosion from water runoff found on the west and east side of the landfill on the hillside going up to the cap.
  - Water run off along the gravel road on the northeast side of the cap, from last week's precipitation and winter thaw.
- Pictures were taken during this visit and are available at S:\production\environmental\enviroshare\CCR Landfill\Pictures\2025
- I concluded the visual inspection and locked the gate around 2:24pm.

Recommendations/Comments:

- Continue to do annual mowing maintenance. The landfill was last mowed on 7/29/2024.
- Pay particular attention to entrances and exits to retention basins to ensure steady flow in and out, which may include weed whacking the areas and addition of riprap.
- Continue the upkeep of the well and piezometer areas, including mowing/weed whacking and maintenance for easy identification and access for testing.
- Fix the minor areas of erosion before it affects the landfill cap and before the vegetation grows.
- Cut down the trees around the north side of the landfill by the pond area, as recommended from the last inspection conducted by Stanley Consultants.
- Landfill Sampling will take place April 14<sup>th</sup> and 15<sup>th</sup>, this is two weeks before what was originally planned.

## MEMORANDUM

**To: Record**

**From: Mackenzie Holladay- Environmental Specialist**

**Date: September 4, 2025**

**Re: CCR Semi-Annual Landfill Visual Inspection**

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I visited the landfill at about 1:08pm to complete a semi-annual visual inspection. The weather was sunny, 66° F, and winds from the west at about 15 mph. My visual inspection comments are as follows:

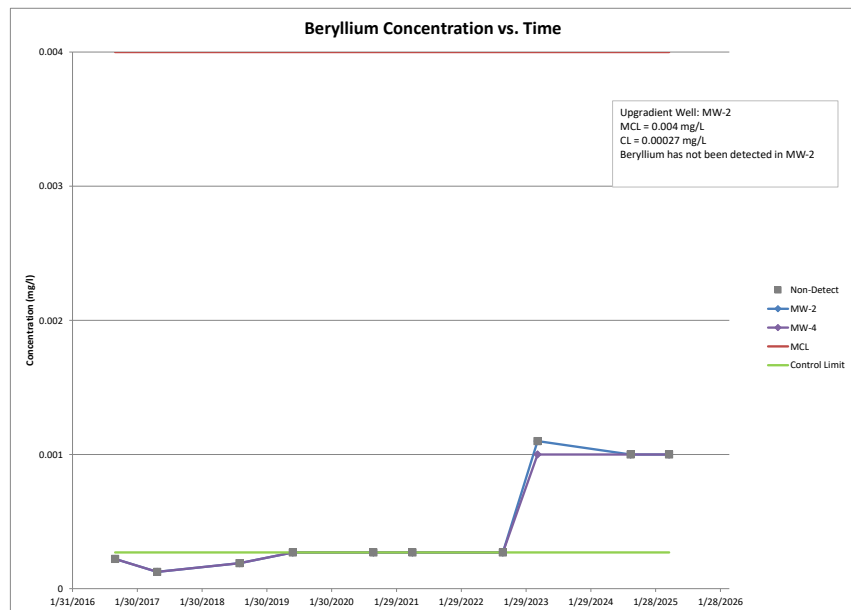
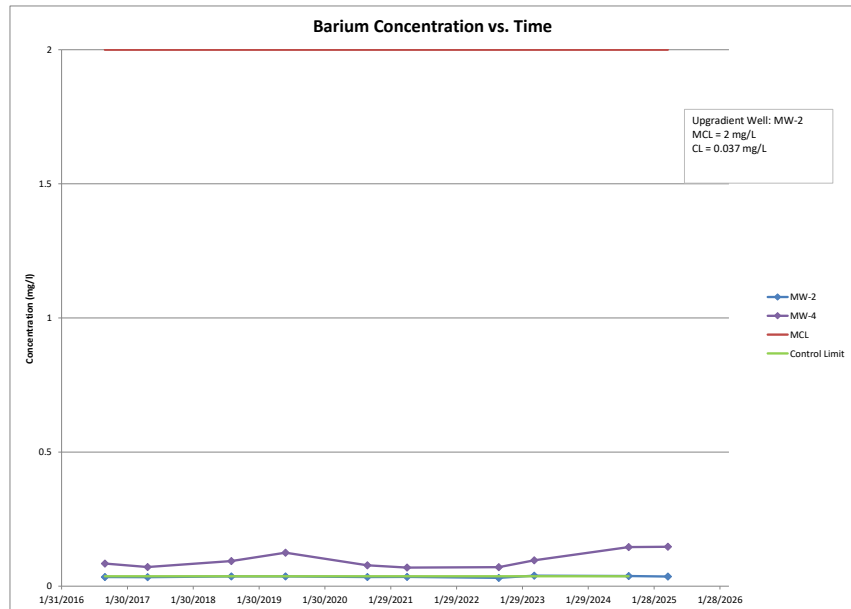
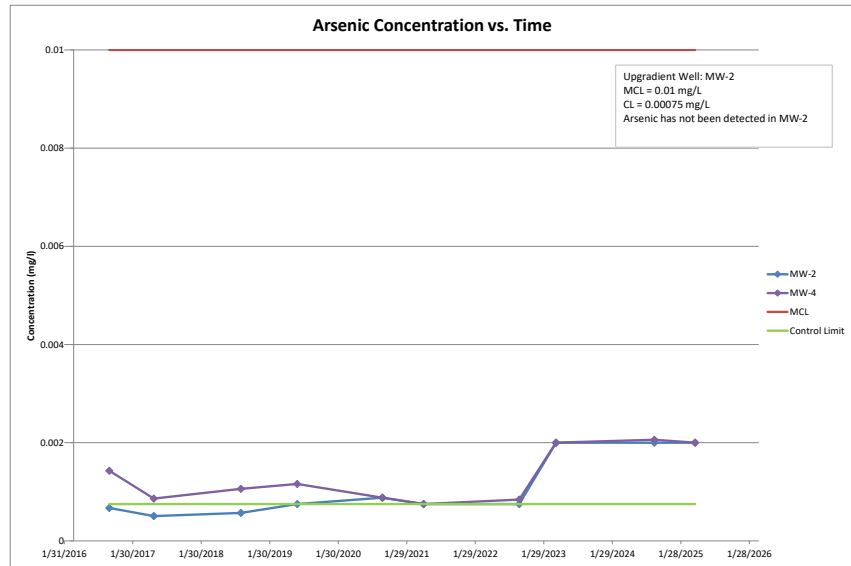
- No standing water in either retention pond.
- No trees were visible on the landfill cap.
  - Trees and other growth are still visible around the pond area on the north side of the landfill.
- No signs of animals creating homes/burrows on the cap.
- No visible signs of stressed vegetation on the property.
- No visible cracks, cave-ins, or punctures to the landfill cap.
  - The erosion areas that were found in the last inspection had been fixed.
- The landfill had been mowed.
  - Weed whacking needs completed around piezometer and well areas.
- Pictures were taken during this visit and are available at <S:\production\environmental\enviroshare\CCR Landfill\Pictures\2025\September>
- I concluded the visual inspection and locked the gate around 2:03pm.

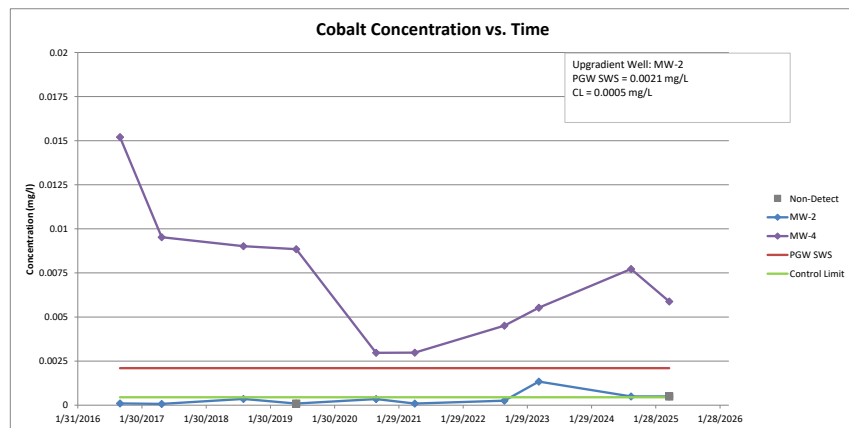
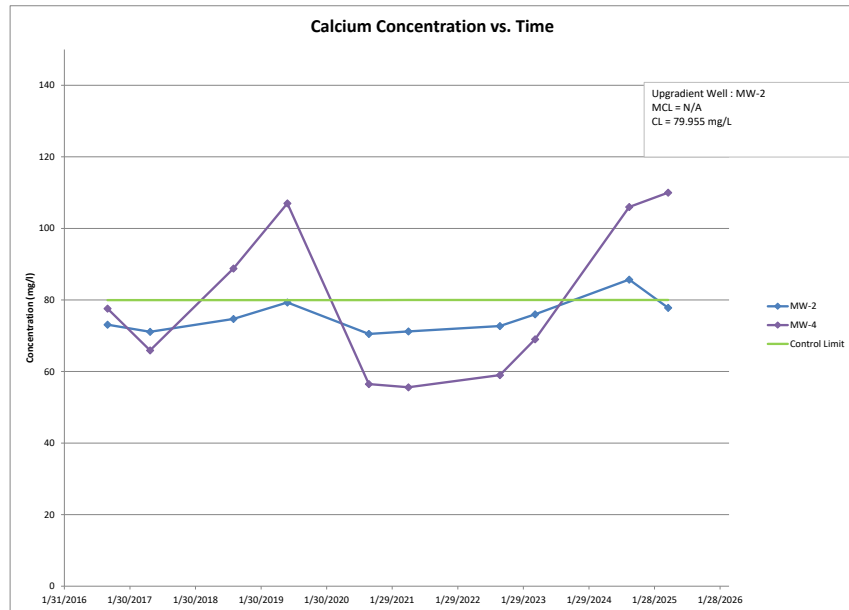
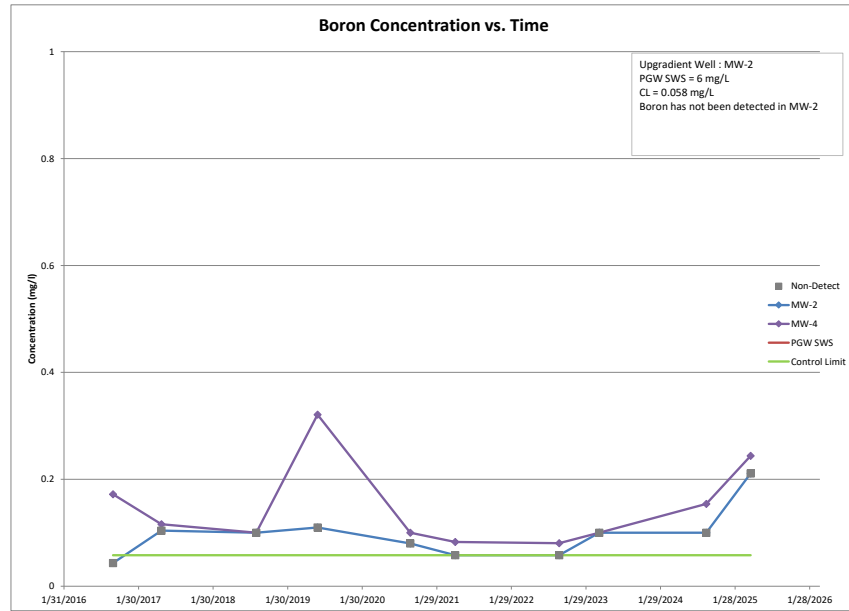
Recommendations/Corrective Actions:

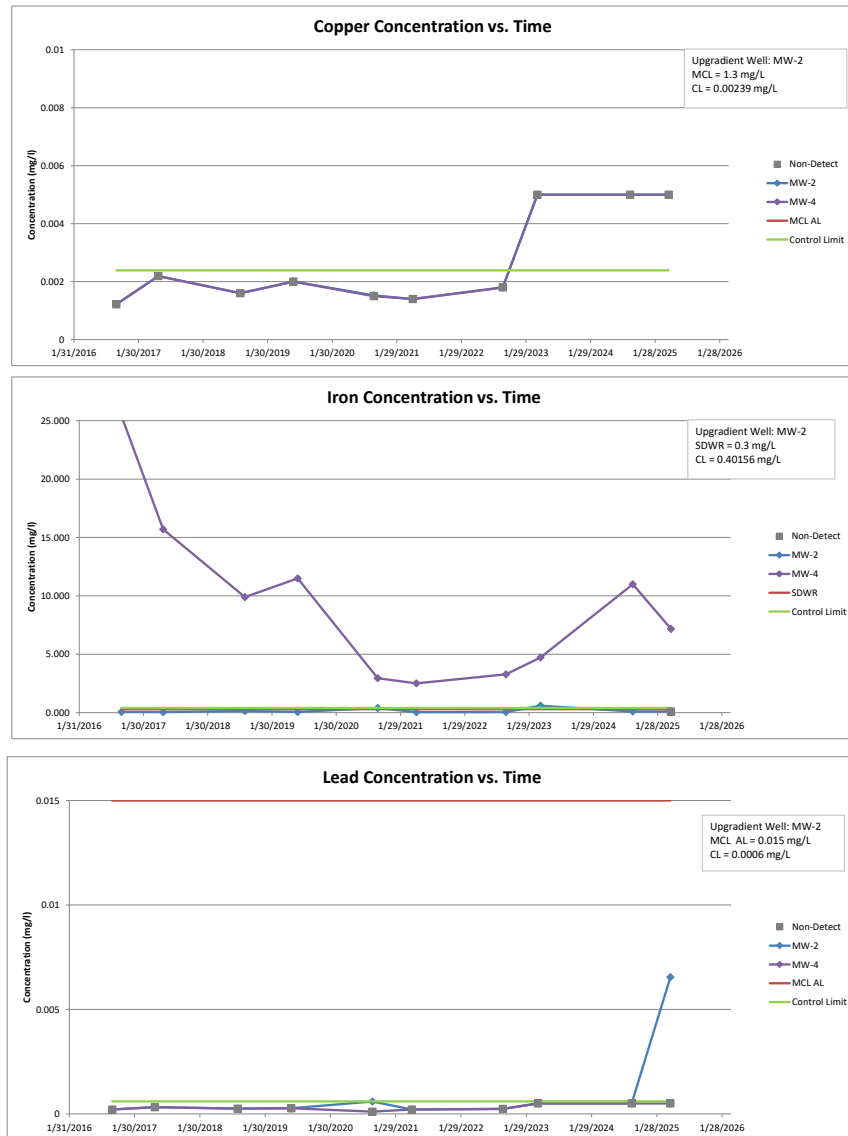
- Continue to do annual mowing maintenance. The landfill was last mowed on 8/17/2025.
- Pay particular attention to entrances and exits to retention basins to ensure steady flow in and out, which may include weed whacking the areas and addition of riprap.
- Continue to observe landfill for erosion, especially on the cap and the hill leading to the cap.
- Cut down the remaining trees and growth around the north side of the landfill by the pond area.
- Weed whack well and piezometer areas, for easy identification and access for testing.

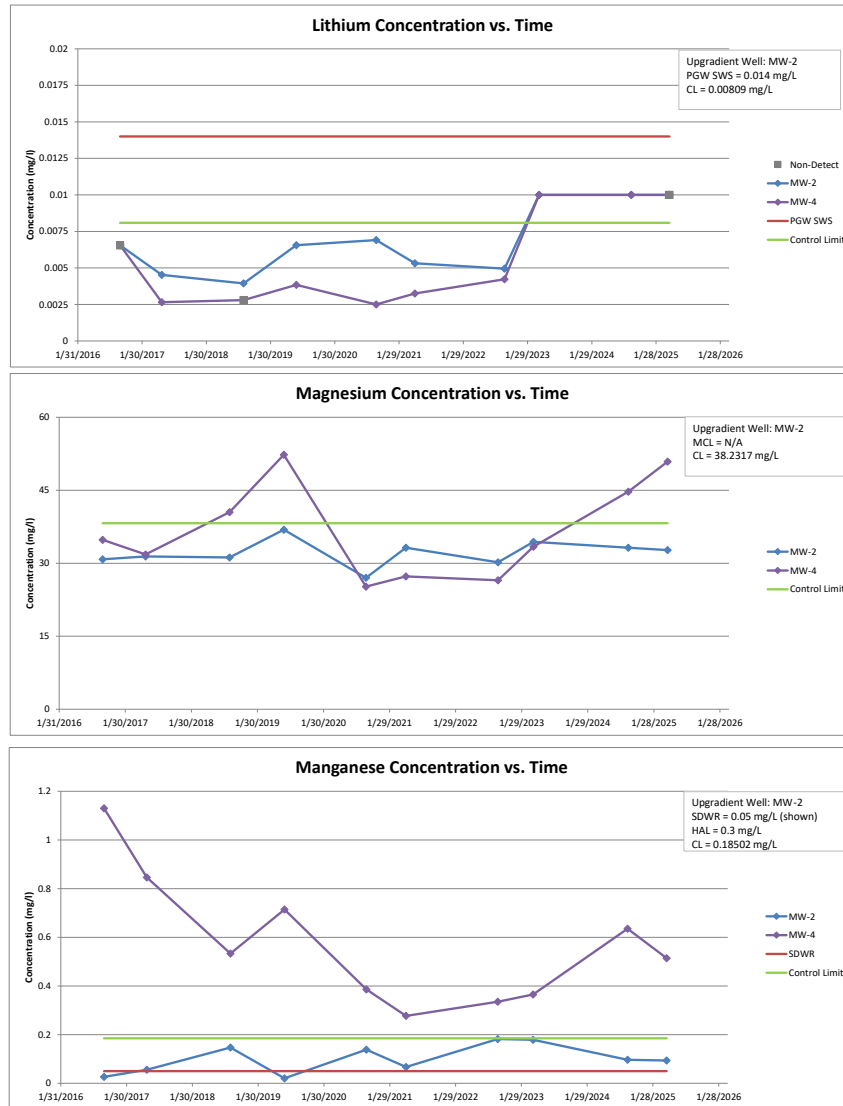
## Appendix F      Historical Groundwater Quality Figures

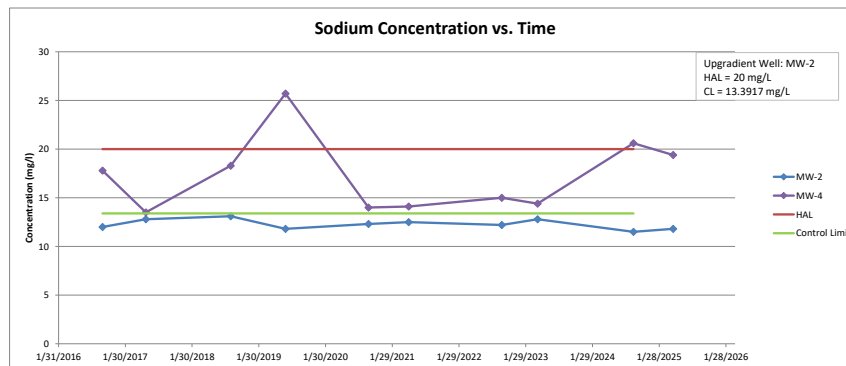
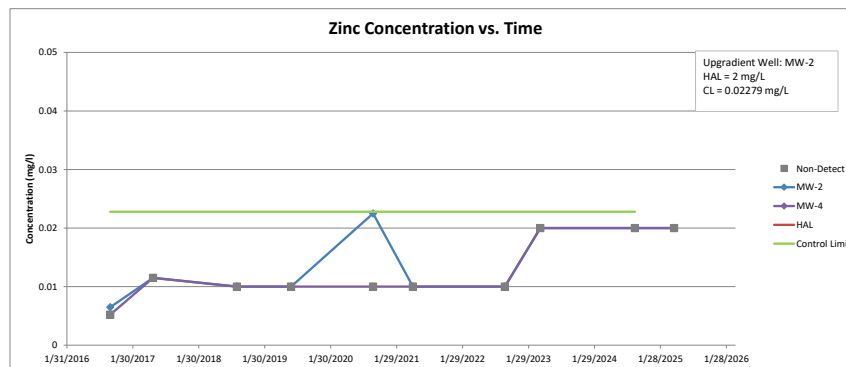
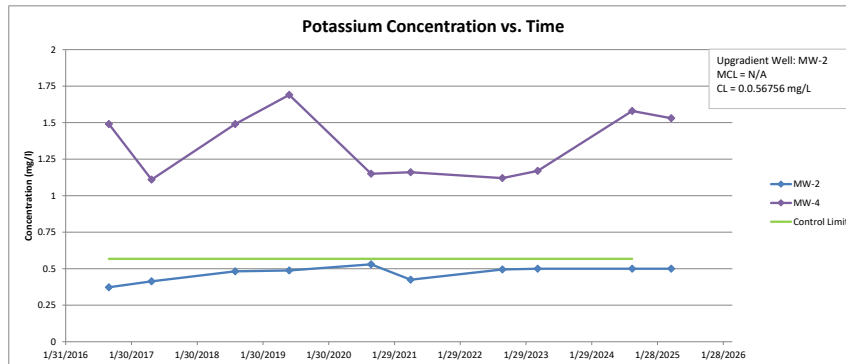
Groundwater Results Over Time (2016-2025)

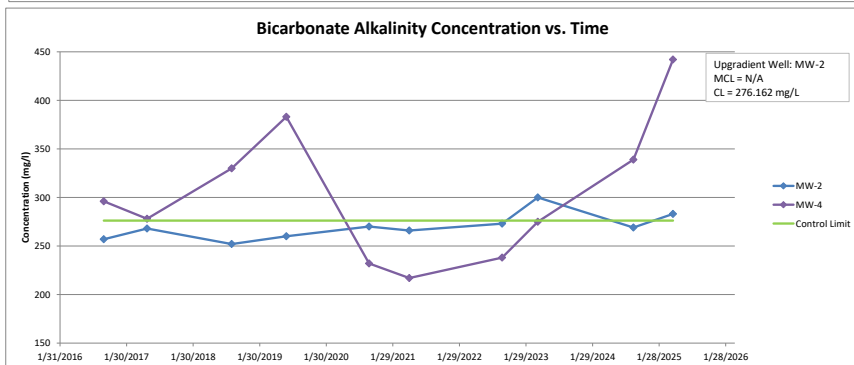
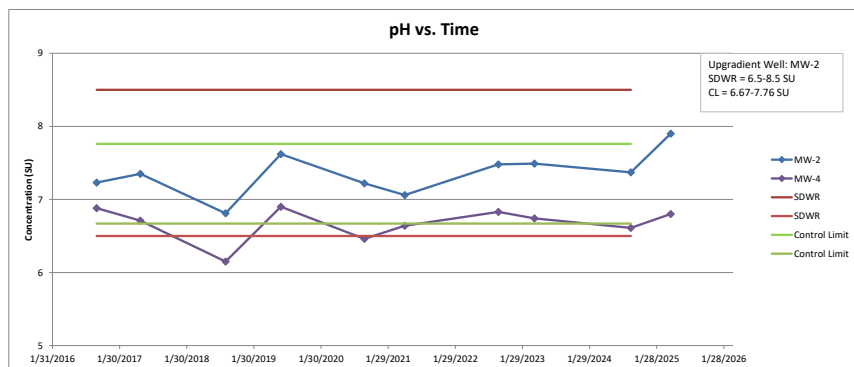
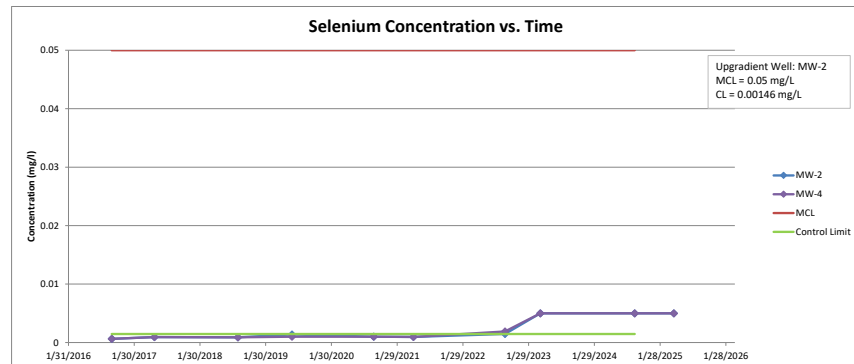


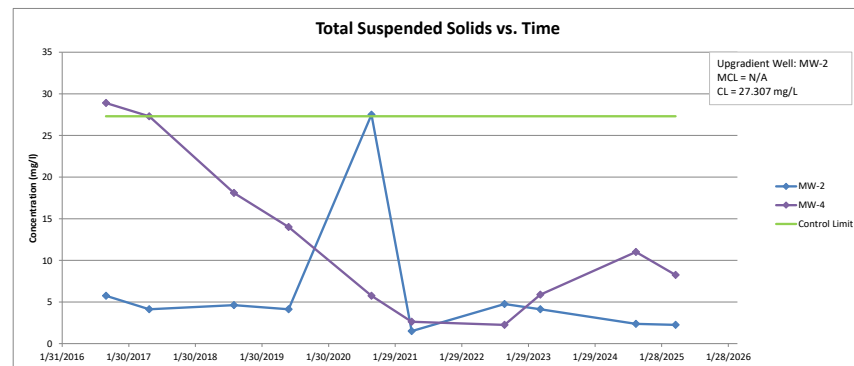
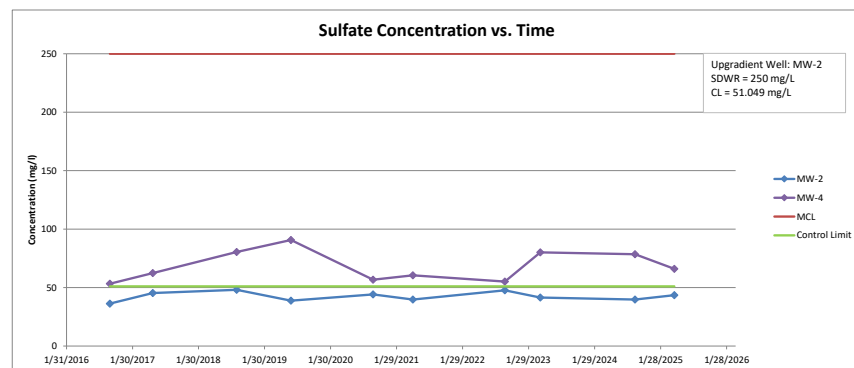
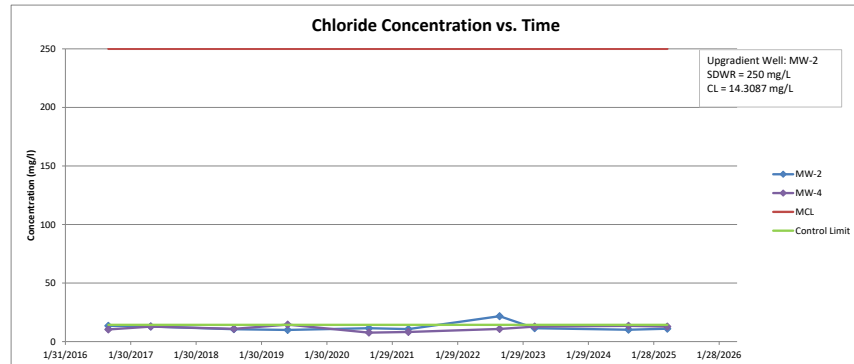


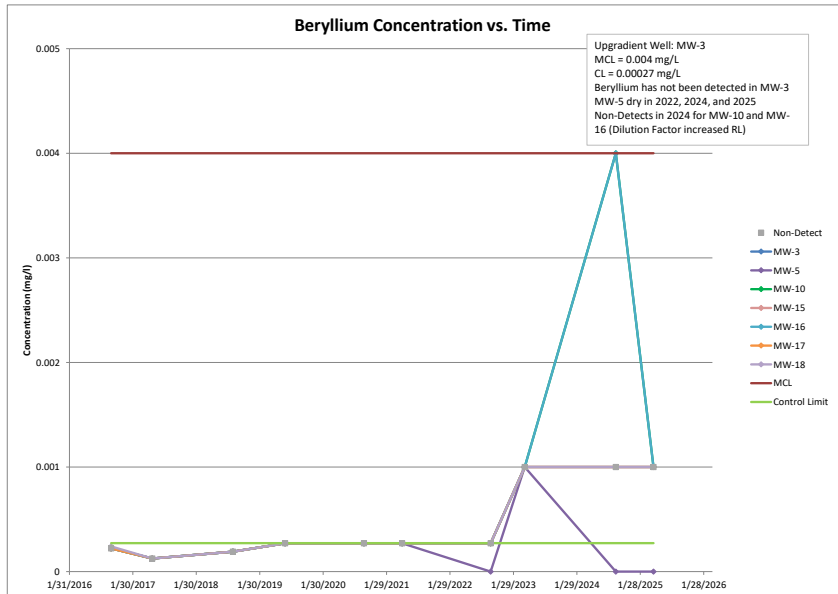
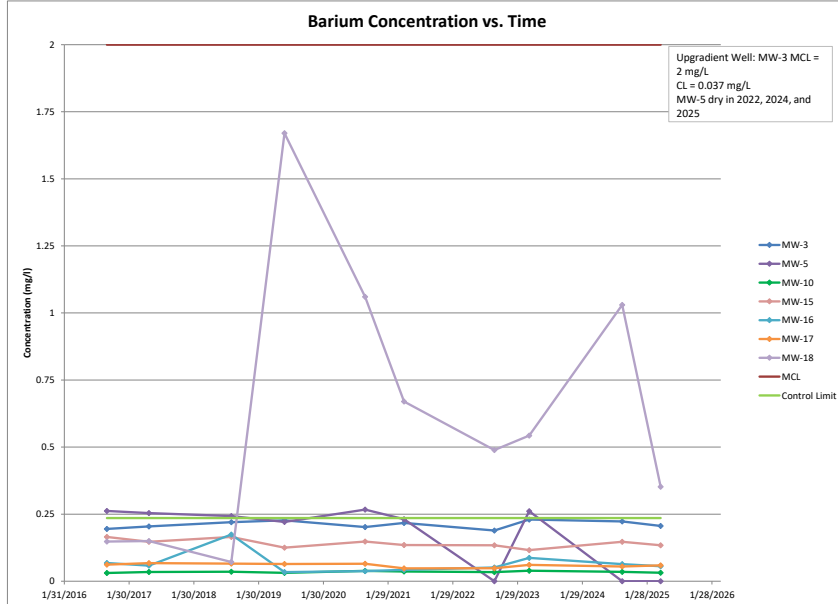
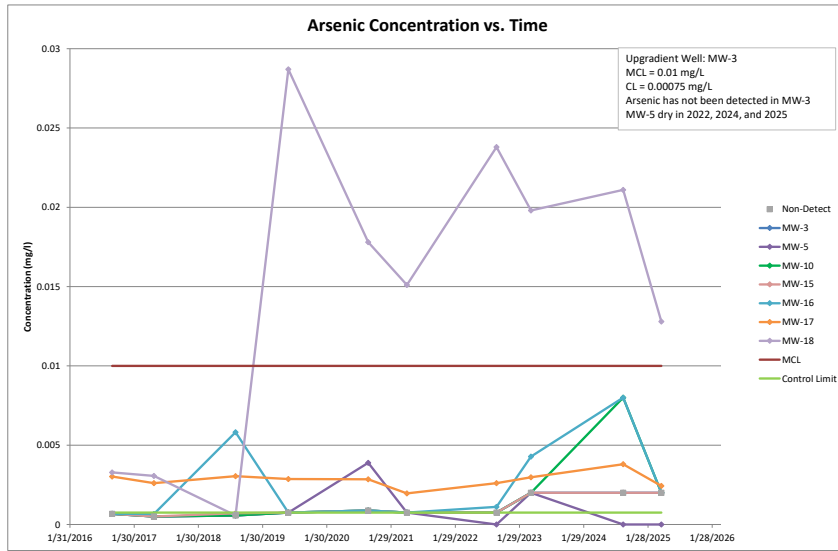


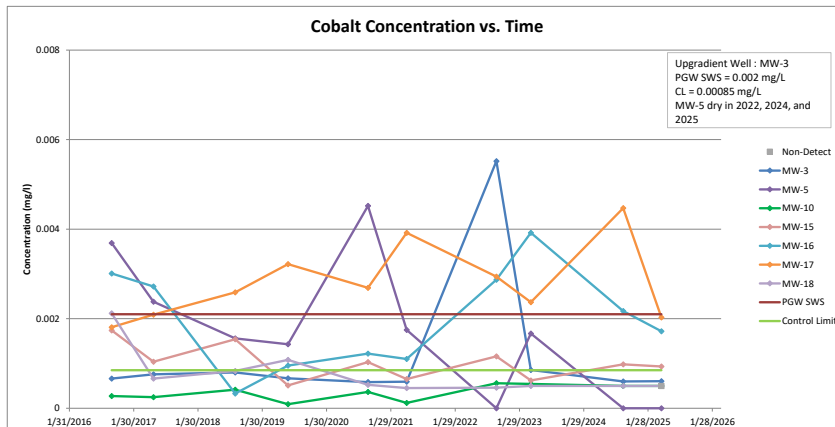
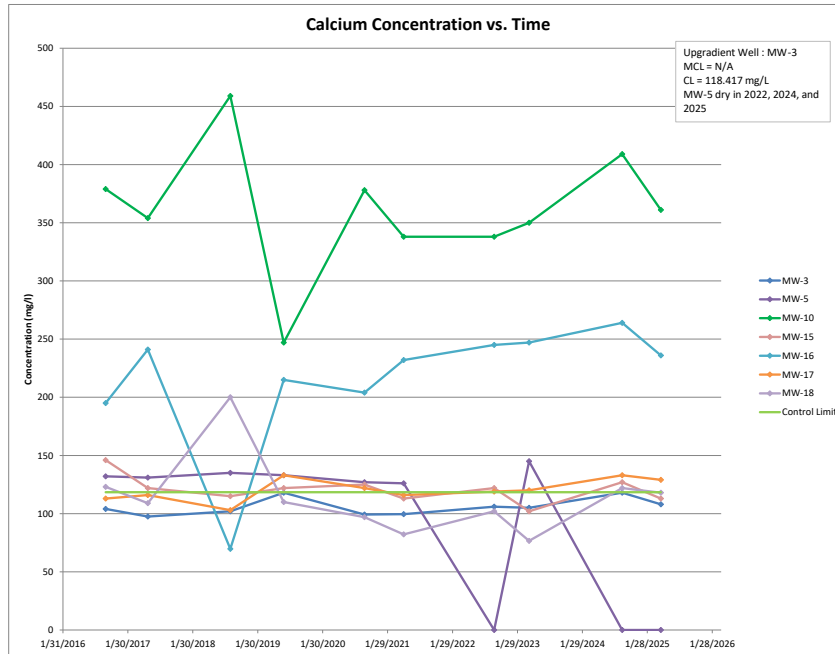
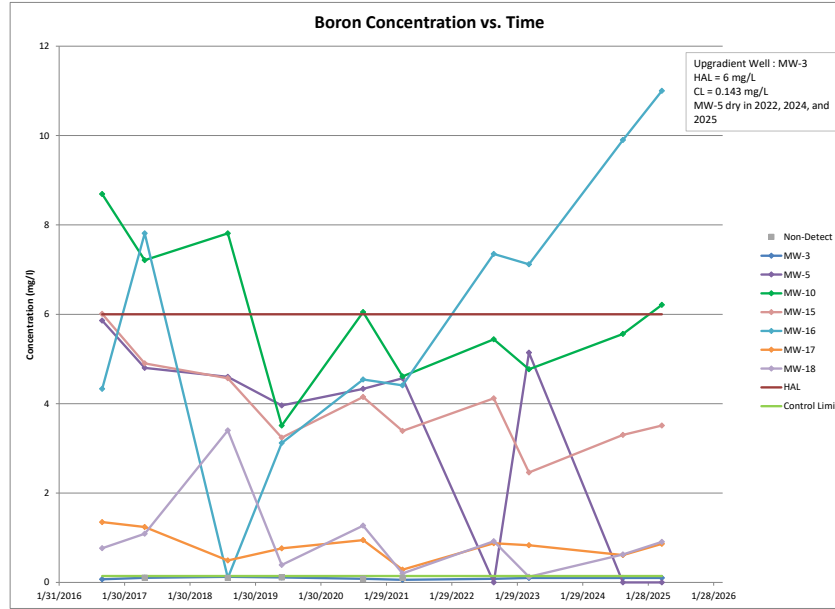




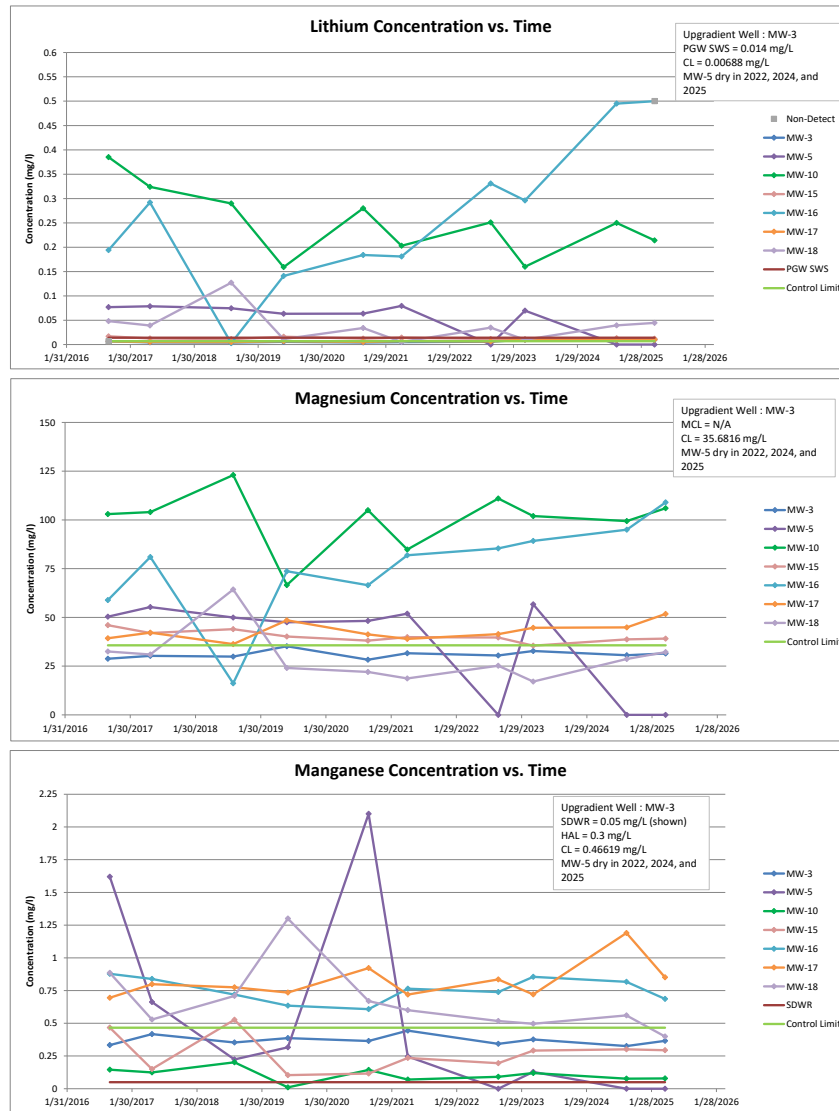


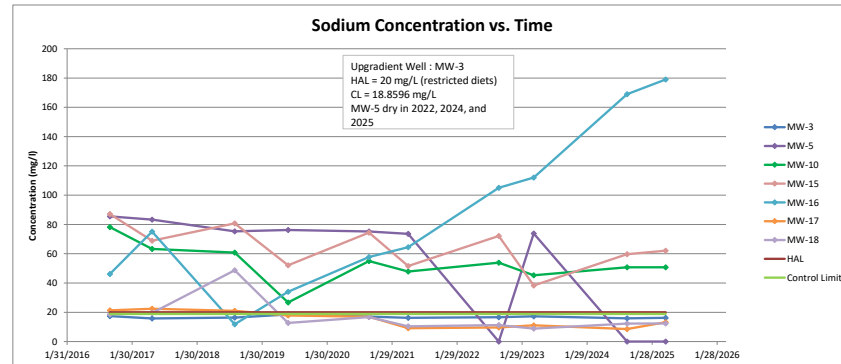
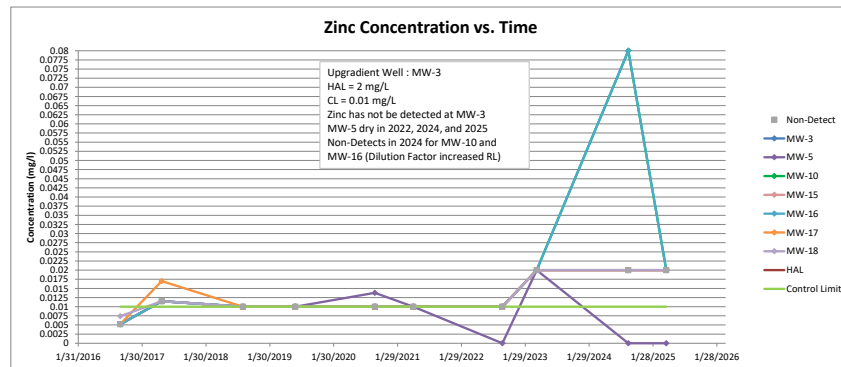
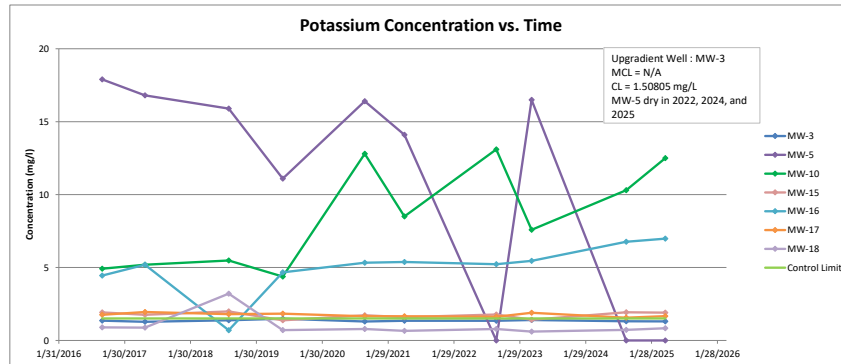


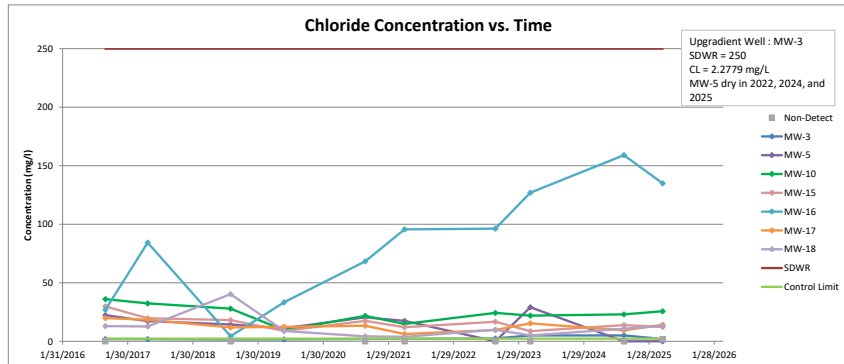
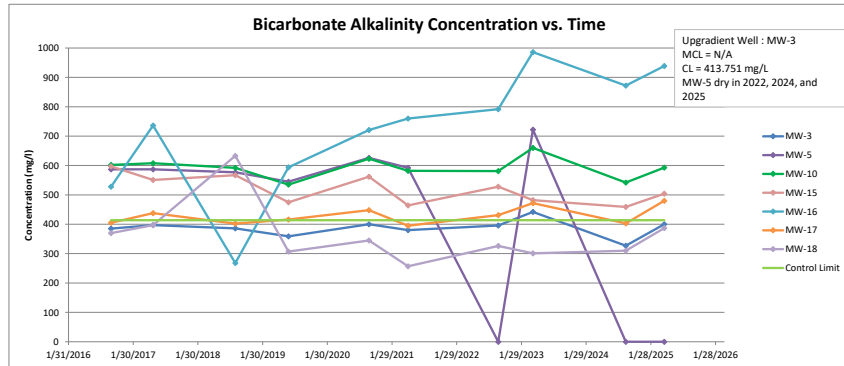
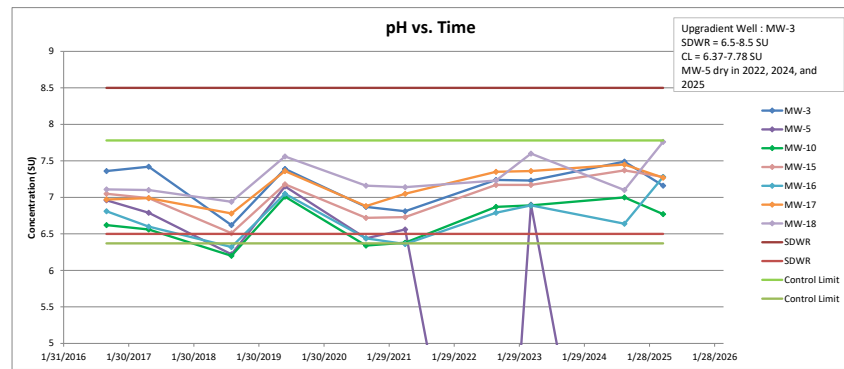
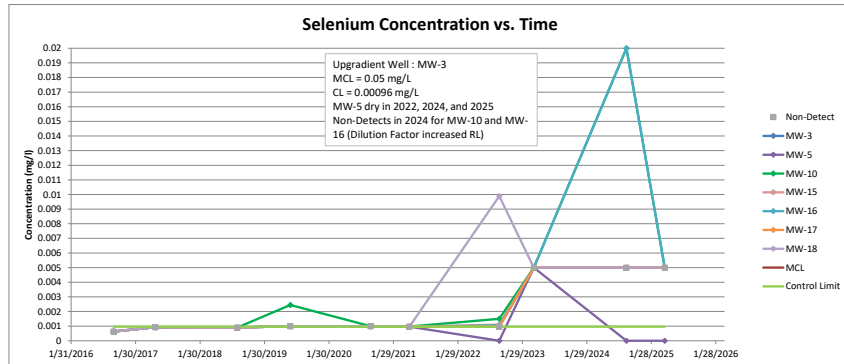


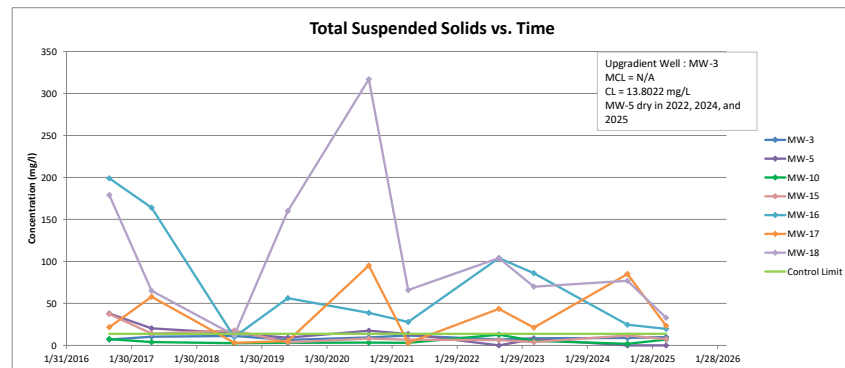
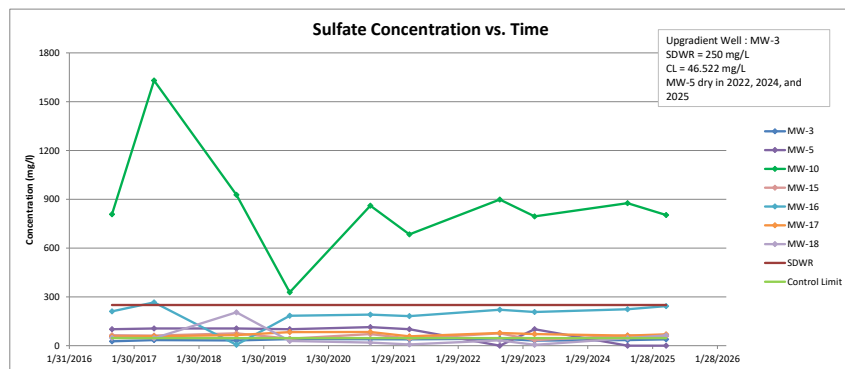














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