

# DRAFT MEMORANDUM

**DATE:** October 24, 2025  
**TO:** Cliff Nale, LG; Washington State Department of Ecology  
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**FROM:**



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**RE: PRB Treatability Testing Memorandum**  
Glacier Northwest, Inc. Site  
Project No. 25006-03

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## Introduction

Black River Environmental, LLC (Black River) has prepared this Permeable Reactive Barrier (PRB) Treatability Testing Memorandum (Memo) on behalf of Glacier Northwest, Inc. (Glacier) to support cleanup alternative development for the Glacier Northwest, Inc. Site (Site). The Site is associated with King County Tax Parcel No. 1924049292, located at 5900 West Marginal Way SW in Seattle, Washington (the Property). This Memo was prepared to support the Feasibility Study (FS) for the Site, consistent with the Agreed Order No. DE 6000 (Agreed Order) entered with the Washington State Department of Ecology (Ecology).

A Treatability Testing Work Plan (TTWP; Aspect Consulting, 2024) defined the approach and methods to evaluate whether the PRB technology is a viable remedial technology for the Site and should be included in remedial alternative development as part of the FS. The goal of the treatability testing was to evaluate potential effectiveness of a zero-valent iron (ZVI)-based PRB and determine preliminary design parameters that can be used in the FS to evaluate practicable application of the technology for treating Site contaminants of potential concern (COPCs), particularly arsenic in groundwater. PRB treatability testing was

conducted on-Site in April and May of 2025 by Aspect Consulting. This Memo presents the results and evaluation of PRB treatability testing and establishes a preliminary basis of design for PRB width and composition.

## **Treatability Testing Scope and Objectives**

The treatability testing was conducted to evaluate the potential for a ZVI-based PRB to reduce concentrations of arsenic in Site groundwater, with a secondary objective of evaluating the potential for a ZVI-based PRB to reduce copper and pentachlorophenol (PCP) concentrations. Potential PRB performance was tested by constructing columns filled with sand and differing doses of granular ZVI, pumping Site groundwater through the columns, and sampling the water at different distances along the column. The TTWP identified the following objectives for column testing:

1. Verify ZVI reactivity in the presence of Site groundwater.
2. Calculate basis-of-design parameters, including reaction rate and arsenic uptake capacity, for determining potential PRB width and iron content.
3. Evaluate secondary water quality factors that may impact PRB performance e.g., mineral precipitation).

An additional objective identified in the TTWP was to evaluate the potential effect of salinity on ZVI treatment of Site groundwater by pumping saline groundwater through one of the columns. Conductivity measurements collected at all shoreline wells during the FS data gaps investigation, including those in the deep groundwater zone, indicated only slightly brackish salinity. Therefore, treatment of saline water using a PRB at the Site is unlikely, and treatment of saline groundwater was not included in the PRB treatability testing.

In November 2024, an FS data gaps investigation was conducted to close data gaps identified during the FS. The FS data gaps investigation included collection and laboratory analysis of soil, groundwater, and porewater samples. Results of the FS data gaps investigation were used to identify the source of groundwater used in the PRB treatability column testing. Groundwater from MW-13S was selected because it contained concentrations of arsenic (650 micrograms per liter [ $\mu\text{g/L}$ ]) and PCP (68  $\mu\text{g/L}$ ) representative of groundwater that may be treated using a PRB.

## Methods

Column testing was conducted at the Site using groundwater pumped at a low flowrate from a Site groundwater monitoring well, MW-13S, as the column influent. The testing was conducted on Site because groundwater at the Site is anaerobic and reducing; transporting water to a laboratory would risk changing the geochemical conditions of the water prior to testing. Flow-through columns were operated by routing groundwater directly from the well through the columns to minimize exposure to air and maintain the in-situ groundwater oxidation-reduction potential (ORP) to the extent practicable. Column testing field work was conducted by Aspect Consulting, and field records are included in Appendix A.

### Column Construction

Three columns with variable ZVI percentages were operated. The TTWP specified 20 percent ZVI, 50 percent ZVI, and a control column with only sand. The sand/ZVI mixes used to fill the columns were created using volume measurements at the ratios specified in the TTWP. Mix percentages by mass were subsequently calculated to be 25 percent ZVI and 58 percent ZVI. The control column was filled with sand only. The ZVI used was Connelly-GPM, Inc -8/+50 ZVI CC-1004 (Appendix B). The sand mix was procured from local sources that could be utilized during PRB construction. The sand was observed to consist primarily of medium to coarse sand with little to no fines content and would be an appropriate sand for use in shallow Site soils.

The columns were 3 inches in diameter and 36 inches long and constructed of clear PVC. Each column was constructed with three sample ports, located approximately 6 inches (Port 1), 12 inches (Port 2), and 24 inches (Port 3) from the bottom of the column. The columns were mounted to a temporary structure in a vertical position, with the influent at the bottom and the effluent at the top to facilitate upwards flow, which mitigates formation of air bubbles and allows for consistent flow control. Aliquots of each dry ZVI/sand mix were funneled into the columns vertically to achieve a homogeneous mixture.

**Table 1. Column Physical Properties**

| Nominal<br>ZVI percent<br>by volume | Percent<br>by Mass | Sand Mass<br>(pounds) | ZVI Mass<br>(pounds) |
|-------------------------------------|--------------------|-----------------------|----------------------|
| 0% ZVI<br>(Control)                 | 0% ZVI             | 16.5                  | --                   |
| 20% ZVI                             | 25% ZVI            | 13.0                  | 4.4                  |
| 50% ZVI                             | 58% ZVI            | 8.10                  | 11.0                 |

Influent groundwater was introduced to each column using a multi-channel peristaltic pump to achieve low-flow pumping rates at each column. Construction materials, pumping method, and tubing were chosen to minimize the amount of oxygen entering the columns. The intake and delivery tubing were polyethylene, and peristaltic tubing was silicon.

## Startup and Operation

On April 22, 2025, the columns were constructed, filled with media, and flushed with carbon dioxide (CO<sub>2</sub>) gas prior to Site groundwater being introduced so that any bubbles remaining after filling the columns with water would quickly dissolve into the water and ensure full water saturation of the pore spaces in each column. A CO<sub>2</sub> gas cylinder was connected to the bottom of each column, and the valve was opened for approximately 30 minutes to allow ambient air contained in the pore spaces of the ZVI/sand mix to be replaced by CO<sub>2</sub>.

After the CO<sub>2</sub> flush, the column was filled with deionized water until 1 liter of effluent was collected. The flow was then reduced to the desired flow rate, 14.5 milliliters per minute [mL/min], and deionized water flowed through the column for at least 4 hours prior to the introduction of Site groundwater. The target flow rate was selected based on the estimated residence time required to treat influent arsenic concentrations to the proposed cleanup level. This flow rate was also consistent with estimated groundwater flow velocities at the Site. Upon the introduction of Site groundwater, flow rates were set at the target flow rate of 14.5 mL/min and remained unchanged throughout the duration of the test. Increases in pH and dissolved iron, and decreases in ORP and arsenic concentrations, were observed in treated columns in Days 1 and 2, which indicated that iron corrosion and associated treatment had begun and indicated the high-flowrate flush described in the TTWP was not needed.

Column operation and sampling began on April 23, 2025, and continued for a total of 10 days until May 2, 2025. The control column and 25% ZVI column were sampled according to



the monitoring plan starting on April 23, 2025. Upon arrival to the Site on April 23, 2025, staff found that the 58% ZVI column had leaked and emptied after becoming disconnected from the influent tubing. The 58% ZVI column was re-flushed with CO<sub>2</sub> and deionized water, and sampling of this column began on April 24, 2025. Each tubing connection at the three columns was reinforced with zip ties to prevent leaks after the 58% ZVI column was reset. All references in this memo to day numbers (e.g., Day 8, Day 9, and Day 10) are relative to starting operation on April 23, and do not reflect the delayed start of the 58% ZVI column.

The TTWP stated that the column test would be maintained until steady state was achieved as indicated by arsenic concentrations at each distance along the column not changing by more than a 20 percent relative percent difference (RPD) between sampling events. While this RPD target was not achieved, the test was determined to have reasonably achieved steady state and was stopped after the planned maximum of 10 days. The analysis to support the conclusion that the columns had achieved steady state is provided in the Results section.

Upon completion of column testing, geochemical data indicated results that were consistent with expectations, and the contingent geochemical evaluation described in the TTWP was determined not to be needed. The column media and spent deionized water and groundwater used for testing were placed into sealed drums on Site pending off-Site disposal.

## Monitoring

The TTWP prescribed daily sampling of the influent of each of the three columns. Because the influent source for all three columns was the same (MW-13S) and would therefore be redundant, a modified sampling approach was proposed: sampling of each column influent would be conducted to verify the influent sources were geochemically similar and subsequently sampling would be reduced to only one influent stream. The approach was presented to Ecology in a meeting and subsequent email, and Ecology approved the approach in an email on February 25, 2025.

Two rounds of influent verification sampling were conducted on Day 1 and Day 2 of the column testing, as described in the next paragraph. The RPD of influent metals concentrations after two rounds were calculated to confirm that the redundant sampling could be reduced. RPDs are shown in the attached Table 2.

Three intake tubing lines were set up to deliver influent groundwater from MW-13S to each of the three columns. A fourth tubing line, (identified as "INFLUENT" in Table 2), was set up

as a dedicated influent sampling port, purging groundwater directly from MW-13S without being connected to a column. Samples from each of the intake locations were collected starting on April 23, 2025, in accordance with the monitoring plan in the TTWP. The RPD was calculated to confirm the redundancy of the influent flowing into each column. The RPDs were calculated for each of the total and dissolved metals submitted for analysis and were based on the maximum and minimum results from the four influent locations. The average RPDs of Day 1 and Day 2 dissolved and total arsenic concentrations were 6 percent and 4 percent, respectively. The average RPDs for dissolved and total copper were 58 percent and 95 percent, which was a result of copper concentrations frequently being below the reporting limit. The maximums of the average of Day 1 and Day 2 RPDs among iron, manganese, calcium, magnesium, potassium, and sodium (which, with arsenic and copper are collectively referred to as 'metals') were 18 percent for dissolved analytes and 23 percent for total analytes. These calculated RPDs were determined to be acceptable for verifying that redundant influent sampling could be removed at each of the columns. Starting on April 25, 2025, influent groundwater samples were only collected from the dedicated Influent tubing.

Each column was sampled daily according to the monitoring plan in the TTWP. The influent and effluent samples from each column were analyzed for total metals, dissolved metals, anions (bromide, chloride, fluoride, nitrate, nitrite, orthophosphate, and sulfate), alkalinity, salinity, total dissolved solids (TDS), and total organic carbon (TOC). Ferrous iron testing by the analytical laboratory was included in the TTWP but was later determined to be redundant with dissolved iron analyses. Ecology agreed with the decision to remove ferrous iron laboratory testing in an email on February 25, 2025.

The three sample ports on each column were sampled daily and only analyzed for total and dissolved arsenic and copper. Only influent and effluent of the 58% ZVI column was analyzed for PCP, which was conducted once every three days. Measurements of field parameters (pH, ORP, dissolved oxygen, and electrical conductivity) were collected at influent, effluent, and sample ports using an Aqua TROLL 500 multiparameter meter. Field parameters were measured and recorded in a spreadsheet on each day of the test. However, the field computer used to record field parameters was stolen during testing, so only field parameter data from April 23 through April 28 are available. The available field parameter data in combination with lab analytical results were determined to adequately meet the objectives of the treatability test. As described in the Startup and Operation section, column operation and sampling began on April 23, 2025, and continued for a total of 10 days, ending on May 2, 2025.

## Results

Field parameters and analytical results for samples collected during column testing are summarized in Table 3, and analytical lab reports are provided in Appendix C.

Arsenic data was plotted on graphs with sampling port position on the X-axis and concentration on the Y-axis. These “column profiles” represent the decrease in arsenic concentrations as groundwater flows through the simulated PRB. Column profiles for total and dissolved arsenic on each day of operation are shown on Figures 1a and 1b. Column profiles for total and dissolved arsenic in each column (25% ZVI column, 58% ZVI column, and control) are shown on Figure 2. Results for total and dissolved arsenic at each port for the duration of testing are shown for each column on Figure 3.

As shown on Figure 3, arsenic concentrations at Ports 1, 2, and 3 of the treatment columns increased during the first four days of the test, then decreased. Arsenic concentrations were continuing to decrease in both treated columns when the test ended on Day 10 and had not reached steady state. While steady state may not have been achieved, the data collected during final three days of the test (Day 8 through Day 10) were analyzed collectively to evaluate treatment capacity and kinetics. This analysis is conservative because the decreasing trend suggests that a longer test duration would have resulted in lower concentrations throughout the treated columns, translating to faster reaction rates and higher arsenic removal percentages than are calculated in this memorandum by analyzing the final three days’ data.

Treatment performance was evaluated based on dissolved arsenic because arsenic is primarily treated by ZVI through precipitation, which reduces dissolved metals concentrations, but potential for entrainment of fine particles during sampling can result in higher measured concentrations of total metals.

Influent dissolved copper concentrations were at or below analytical reporting limits (2.5 to 2.6 µg/L) on 8 of 10 days. As a result, dissolved copper results were insufficient to evaluate treatment performance. All copper analytical results are provided in Table 3. The TTWP identified evaluation of copper and PCP treatment as secondary objectives of column testing based on anticipated drivers for PRB usage, therefore the insufficient copper data is not considered a significant gap in treatability testing data. Additionally, the use of ZVI PRBs to treat dissolved copper is well established in the scientific literature (Tratnyek et al., 2003), therefore it is reasonable to assume that the technology can be designed to effectively treat the relatively low concentrations of copper observed in shallow groundwater.

Arsenic concentrations decreased between the influent and Port 1 of the control column. Sorption of arsenic onto sand is a possible cause of arsenic losses in the control column, especially if sand was procured from a local source containing iron minerals. However, if losses were due to sorption onto sand, we would expect losses to occur throughout the column. Because losses were primarily observed between influent and Port 1, we attribute the losses to the higher dissolved oxygen concentrations and higher ORP observed in the control column (Table 3). Arsenic losses in the control column were considered in evaluation of arsenic removal kinetics described further below.

## Arsenic Removal Rates

Table 4 below summarizes the influent and effluent arsenic concentrations on Days 8 through 10 of testing and shows the arsenic removal rates calculated for each column. Removal rates are the change in concentration between influent and effluent, expressed as a percentage of the influent concentration. In both the 25% and 58% ZVI columns, arsenic removal rates over Days 8 through 10 ranged from 99.4 percent to 99.9 percent.

**Table 4. Steady-State Influent and Effluent Dissolved Arsenic Concentrations**

| Source                   | Sample Location | Dissolved Arsenic (ug/L) | Removal Rate (%) |
|--------------------------|-----------------|--------------------------|------------------|
| <b>4/30/2025 – Day 8</b> |                 |                          |                  |
| Influent                 | MW-13S          | 670                      | 0.0              |
| Effluent                 | Control         | 290                      | 56.7             |
| Effluent                 | 25% ZVI column  | 3.2                      | 99.5             |
| Effluent                 | 58% ZVI column  | 1 U                      | 99.9             |
| <b>5/1/2025 – Day 9</b>  |                 |                          |                  |
| Influent                 | MW-13S          | 660                      | 0.0              |
| Effluent                 | Control         | 350                      | 47.0             |
| Effluent                 | 25% ZVI column  | 3.9                      | 99.4             |
| Effluent                 | 58% ZVI column  | 3.1                      | 99.5             |
| <b>5/2/2025 – Day 10</b> |                 |                          |                  |
| Influent                 | MW-13S          | 680                      | 0.0              |
| Effluent                 | Control         | 360                      | 47.1             |
| Effluent                 | 25% ZVI column  | 4.2                      | 99.4             |
| Effluent                 | 58% ZVI column  | 1.2                      | 99.8             |

## Arsenic Removal Kinetics

Arsenic data was analyzed to estimate reaction rate constants that could be used to evaluate PRB design scenarios at the Site. Rate constants were calculated by first:

- evaluating only dissolved arsenic;
- using the reporting limit value for nondetect results<sup>1</sup>;
- assuming the reaction behaved according to first-order kinetics;
- calculating a residence time of water within the column associated with each sampling port based on column dimensions and an estimated porosity of 0.4; and then
- combining Day 8 through Day 10 results for each column into a single dataset representative of approximate steady state.

The dataset was then normalized to influent arsenic concentrations and corrected for control column losses following the principles described in Lien and Wilkin (2003). These methods included:

- dividing each port and effluent concentration by the influent concentration;
- calculating the average loss ratio (effluent divided by influent) observed across the control column on Days 8, 9 and 10 (calculated to be 0.50);
- adjusting the influent concentration of influent-normalized dataset to 0.50 based on the control column loss ratio<sup>2</sup>; and
- fitting the data to an exponential decay curve.

Graphs containing the unadjusted, influent-normalized, and influent-normalized/control-corrected data are provided in Figure 4. First order decay constants and curve fit  $R^2$  values were then calculated for each treated column. The first-order reaction rate constants based on raw data, data normalized to influent concentrations, and data normalized to influent and control concentrations, are summarized in Table 5.

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<sup>1</sup> Only one result out of the fifteen results in the Day 8 through Day 10 dataset for the 58% ZVI column was nondetect. Calculating rate constants using  $\frac{1}{2}$  of the reporting limit for the nondetect value results in a 4 percent increase in the rate constant for all normalization scenarios. Therefore, using the reporting limit is conservative. The 25% ZVI column Day 8 through Day 10 dataset did not contain any nondetect results.

<sup>2</sup> Lien and Wilkin (2005) considered the effects of control losses by setting the y-intercept of the treated columns' fitted curves to the loss ratio to represent an influent concentration reflecting control losses. Using this approach caused the magnitude of the rate constant to increase, contrary to the expectation that the magnitude of the rate constant should decrease when accounting for control losses. Instead, we replaced the influent-normalized influent concentration (1) with the control loss ratio (0.5), which resulted in a decrease in the magnitude of the rate constant and therefore more reasonably reflected the losses observed in the control column.

**Table 5. Summary of Calculated Rate Constant**

| Column                | Normalization Method | Rate Constant (day <sup>-1</sup> ) | Curve fit R <sup>2</sup> |
|-----------------------|----------------------|------------------------------------|--------------------------|
| <b>25% ZVI column</b> | None                 | -63                                | 0.91                     |
|                       | Influent             | -63                                | 0.91                     |
|                       | Influent and Control | -57                                | 0.95                     |
| <b>58% ZVI column</b> | None                 | -67                                | 0.87                     |
|                       | Influent             | -67                                | 0.88                     |
|                       | Influent and Control | -61                                | 0.88                     |

The estimated rate constants show that variation in influent concentrations and control column losses do not substantially affect the calculated rate constants.

Ranges of first order rate constants calculated from column testing data in the scientific literature include -0.21 day<sup>-1</sup> to -1.15 day<sup>-1</sup> (Lien and Wilkin, 2005) and -6.4 day<sup>-1</sup> to -12 day<sup>-1</sup> (Pepler, 2009). Other recent column testing conducted for cleanup sites in Washington have yielded higher rate constants in a similar order of magnitude, ranging from -3.9 to -25 day<sup>-1</sup> for ZVI dosing ranging up to 20 percent. Assuming rate constants scale linearly with ZVI dosing (Lien and Wilkin, 2005), these rate constants from literature review and other cleanup sites in Washington are comparable to the constants calculated for the on Site PRB column testing in this memorandum. Rate constants vary based on the available surface area of iron and the geochemical conditions, including whether arsenic is present as As(III) or As(V) (Pepler, 2009). While the results from this test are higher than the literature range, multiple scenarios were evaluated for the purpose of developing a conservative estimate and evaluating uncertainty in test results, and the most conservative results are presented in this report. Pilot testing could be conducted as part of PRB design if a PRB is selected in the FS to verify the results of the column testing.

Inspecting the data points plotted in Figure 4, one can see that the fitted curve lies above the data in the higher-concentration part of the dataset, and below the curve in the lower concentration part of the dataset, particularly for the 58% ZVI column data. This may indicate that different treatment mechanisms or rate-limiting factors may dominate at different arsenic concentrations or at different distances along the simulated PRB. Lien and Wilkin made a similar observation of their dataset, which was also proposed by Farrell et al. (2001). Treatment kinetics could be higher at higher arsenic concentrations, and lower at

lower concentrations, which is an important consideration when evaluating potential PRB applications.

## Arsenic Treatment Capacity

As water flows through ZVI and arsenic accumulates, the ZVI treatment capacity is depleted. By estimating treatment capacity, the longevity of ZVI and a PRB lifespan based on a given design can be estimated. The treatment capacity of ZVI in a column is estimated based on when arsenic concentrations increase within the column (also known as arsenic breakthrough). Consistent with column test design, arsenic breakthrough was not observed during testing. Therefore, the duration of testing through which breakthrough did not occur was used to conservatively estimate a minimum treatment capacity. This calculation is summarized in the attached Table 6.

The estimate assumes that breakthrough would have occurred had the test run any longer, which is a conservative assumption given the sustained and improving treatment observed in the final days of the test. Multiplying the average arsenic removal rate observed over the 10-day test by the duration of the test and dividing by the mass of iron between the influent and Port 1, we calculate a minimum treatment capacity of 0.29 milligrams arsenic per gram of ZVI for the 25% ZVI column, and a minimum of 0.14 milligrams arsenic per gram ZVI for the 58% ZVI column. When accounting for losses observed in the control column, those rates decrease to 0.11 and 0.06 milligrams arsenic per gram of ZVI, respectively. Other studies have reported higher treatment capacities ranging from 0.77 to 7.5 milligrams arsenic per gram ZVI (Abedin et al., 2010; Eljamal et al., 2013; Lien and Wilkin, 2005; Nikolaidis et al., 2003).

Based on this analysis, treatment capacities conservatively estimated from the column testing data should not be used in design, and literature values should be used instead, unless additional longer-term testing is conducted during design.

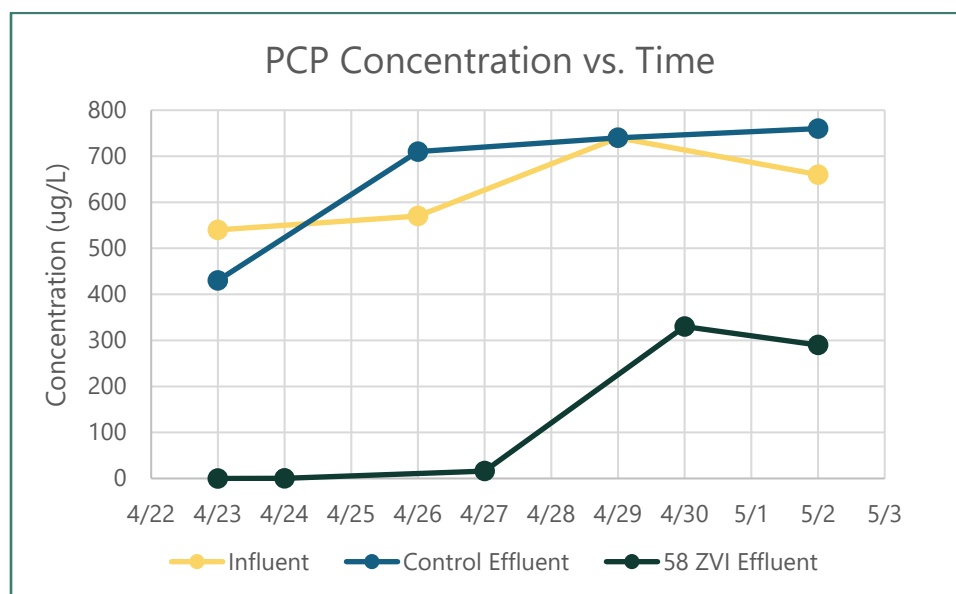
## PCP Treatment

Figure 5 (below) presents PCP data collected during column testing plotted over time. Those data are summarized in Table 3. Influent PCP concentrations increased over the duration of the test. Influent and control effluent concentrations were similar, indicating no notable treatment in the control column. The 58% ZVI column appeared to show strong treatment initially, reducing concentrations by over 98 percent during the first five days of the test before appearing to equilibrate at a removal rate averaging 56 percent. There is



low certainty that steady state was achieved because only two samples were analyzed for PCP during the final half of the test.

**Figure 5. PCP Concentration vs. Time**



## Effluent pH

Table 3 contains all analytical and field parameter data including pH data. pH data is also presented in Table 7, including calculated average pH values and changes in pH. As described in Monitoring section, the computer used to record field data was stolen, so pH data collected after Day 6 are not available. pH data collected during Days 1 through 6 were consistent, remaining circumneutral in all three columns through Day 6 and showing no apparent trend; therefore, the lack of pH data on Days 7 through 10 is not considered a significant data gap.

The average change in pH between influent and effluent was 0.44 in the 25% ZVI column and 0.40 in the 58% ZVI column, and -0.09 in the control column. While the ZVI appeared to consistently increase effluent pH, which is expected from iron corrosion, the magnitude of the increase was lower than expected. ZVI PRB effluent often ranges from 9.2 to 10.5 (Li et al., 2005; Wilkin et al., 2014), while the 25% ZVI column averaged an effluent pH of 6.96, and the 58% ZVI column averaged an effluent pH of 6.91.

The low increase in pH may have been due to a strong buffering capacity in ambient groundwater or hydroxide molecules being consumed by metal hydroxide complexes or other reactions. Regardless, the data do not indicate the potential for negative secondary effects associated with excessively high pH effluent such as mobilization of non-target



metals downgradient of a ZVI PRB or permeability reduction associated with excessive dissolved metals precipitation. Further testing assessing changes in pH may be considered as part of design.

## Potential for Permeability Reduction

Precipitation of dissolved metals can occur within a ZVI PRB, and if excessive, can reduce the permeability of the PRB enough to cause groundwater to flow around it and render it ineffective.

The following factors were evaluated for precipitation potential:

- **pH.** ZVI corrosion increases the pH of water by producing hydroxide. Hydroxide molecules can react with dissolved metals to form metal hydroxides that precipitate. While this reaction is one intended effect of the PRB and a treatment mechanism for arsenic, very high pH can drive excessive precipitation. As shown in Table 7, the maximum pH value recorded in either treated column effluent was 7.25, which is below the typical pH range for PRB effluent and indicates a low potential for pH-driven precipitation.
- **Dissolved metals and TDS.** Precipitation is indicated by a decrease in dissolved metals. No notable decreases were observed among dissolved metals concentrations except for arsenic. TDS concentrations decreased an average of 43 mg/L and 44 mg/L between influent and effluent of the 25% ZVI and 58% ZVI columns, respectively, which represents a 15% decrease in TDS. Given the moderately low TDS influent concentration, which averaged 257 mg/L during the study, and relatively minor change, these data do not to indicate a high potential for permeability reduction.
- **Sulfate.** High sulfate concentrations in the presence of dissolved metals in ZVI PRB influent can result in reduction of the sulfate into insoluble metal sulfides that precipitate. The maximum sulfate concentration detected during the test was 5.05 mg/L. This concentration is lower than the upgradient concentrations in nine of ten ZVI PRBs studies in Johnson et al., 2008, which studied metal sulfide precipitation in installed PRBs. This concentration is consistent with the sulfate concentrations observed within and downgradient of the studied PRBs, indicating a low potential to cause precipitation.
- **TOC.** TOC can form a complex with metals to form precipitates, or it can fuel microbial growth and cause excessive buildup of biomass referred to as biofouling. While sometimes evaluated as a potential failure mechanism, biofouling has not been observed to be an issue in most ZVI PRBs (ITRC, 2011). Elevated sulfate concentrations often drive microbial growth in ZVI PRBs, and the low sulfate concentrations observed at the Site indicate a low potential for biofouling.

Additionally, the maximum TOC concentration measured during the test was an effluent concentration of 7.16 mg/L, also indicating a low potential for permeability reduction.

- **Alkalinity.** Carbonate, often a primary component of alkalinity, can precipitate with cations and cause permeability reduction in PRBs. Alkalinities measured in column influents ranged from 129 mg/L to 257 mg/L, which is within the range of values typically observed upgradient of PRBs (Johnson et al., 2008). The control column effluent averaged 33% higher alkalinity than the influent during the final three days of the test and was consistently higher throughout the test, suggesting that the sand used in treatability testing contributed alkalinity, potentially in the form of carbonate minerals. This added carbonate may also have contributed buffering capacity, providing a possible explanation for why pH remained circumneutral in the presence of ZVI corrosion.

## Secondary Water Quality Effects

ZVI PRBs can elevate concentrations of dissolved iron and manganese in groundwater, although these effects typically attenuate moving downgradient of the PRB. Figure 6 contains graphs showing dissolved iron and dissolved manganese concentrations, respectively, in column influent and effluents plotted against time. Treated column effluents contained higher concentrations of dissolved iron and manganese than influent and control effluent, indicating the potential for elevated dissolved iron and manganese in PRB effluent.

Groundwater at the Site is likely considered to be non-potable, and there is no applicable surface water quality standard for marine water for iron. Therefore, elevated iron concentrations may not be a concern for PRB design. However, the Surface Water Quality Standard for manganese is 100 µg/L, and average manganese concentrations in the column effluents in Days 8 through 10 averaged 530 µg/L higher than the average influent concentration of 170 µg/L. While it's not clear whether the manganese was introduced via the sand or ZVI, elevated manganese concentrations may be an important consideration for installing a PRB near the shoreline at the Site, and additional analysis of the effect of a PRB on manganese concentrations downgradient of the PRB may be appropriate.

## Conclusions and Recommendations

The following conclusions and recommendations are made:

- Column testing verified the reactivity of ZVI in the presence of Site groundwater, and the effective removal of arsenic from groundwater.
- Both treated columns resulted in removal of over 99% of dissolved arsenic from column effluents.
- Estimated rate constants for arsenic removal were higher than the typical range of literature values.
- A lack of arsenic breakthrough was consistent with the results expected based on test design, and literature values should be used to estimate longevity during PRB design.
- PCP results indicated that some treatment of PCP can be expected, but that the removal rate was limited to 56 percent for the 58% ZVI column, and treatment capacity or longevity of PCP treatment would require further evaluation if a PRB is designed to treat PCP.
- Influent copper concentrations were too low to evaluate copper treatment in this test. Copper concentrations in historical groundwater data had a median concentration of 2.0 µg/L and average concentration of 7.5 µg/L in samples from wells across the Site. Based on the relatively low copper concentrations at the Site (compared to the Remedial Investigation screening level of 3.1 µg/L) and well-established treatability of copper using ZVI, the lack of sufficient data to evaluate copper treatment in this test was not identified as a data gap from this study.
- Effluent pH remained circumneutral throughout the study, indicating a low potential for secondary effects or permeability reduction due to elevated pH.
- Geochemical factors including TDS, sulfate, TOC, and alkalinity were evaluated for their potential to reduce PRB permeability. Geochemical data analytical data from the test did not indicate a high potential for permeability reductions.
- Potential sand sources for full-scale implementation should be evaluated for mineral content including alkalinity.
- Manganese concentrations in both treated column effluents were substantially higher than the surface water quality standard for dissolved manganese, indicating dissolved manganese should be considered in evaluating surface water-adjacent PRB alignments.

## References

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## Limitations

Work on this project was performed for CalPortland Company (Client), and this letter has been prepared in accordance with generally accepted professional practices for work of this nature and under comparable local conditions at the time services were provided. This memorandum is not intended to serve as a legal opinion, and no warranties, expressed or implied, are provided.

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Table 2 - RPDs of Redundant Influent Analytes

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| 4/23 Influent Samples  |                |               |             |                  |                |                  |                  |               |
|------------------------|----------------|---------------|-------------|------------------|----------------|------------------|------------------|---------------|
|                        |                |               |             |                  |                |                  |                  |               |
| Analytical Results     |                |               |             |                  |                |                  |                  |               |
| Dissolved Metals       |                |               |             |                  |                |                  |                  |               |
| Column                 | Arsenic (ug/L) | Copper (ug/L) | Iron (ug/L) | Manganese (ug/L) | Calcium (ug/L) | Magnesium (ug/L) | Potassium (ug/L) | Sodium (ug/L) |
| Control                | 850            | 2.5           | 15,000      | 150              | 91,100         | 4,670            | 4,090            | 15,600        |
| 25 ZVI                 | 910            | 8.5           | 18,000      | 180              | 89,600         | 4,490            | 3,990            | 15,500        |
| 58 ZVI                 | 850            | 2.8           | 16,000      | 160              | 90,800         | 4,390            | 3,890            | 15,500        |
| Dedicated Influent     | 870            | 2.5           | 15,000      | 150              | 97,000         | 4,280            | 3,580            | 14,000        |
| Method Blank           | <0.2           | <0.5          | <50         | <1               | <250           | <50              | <50              | <250          |
| Total Metals           |                |               |             |                  |                |                  |                  |               |
| Column                 | Arsenic (ug/L) | Copper (ug/L) | Iron (ug/L) | Manganese (ug/L) | Calcium (ug/L) | Magnesium (ug/L) | Potassium (ug/L) | Sodium (ug/L) |
| Control                | 860            | 4.2           | 16,000      | 160              | 89,000         | 4,720            | 4,190            | 15,800        |
| 25 ZVI                 | 840            | 11            | 20,000      | 180              | 96,100         | 4,440            | 3,920            | 15,100        |
| 58 ZVI                 | 830            | 4.8           | 17,000      | 170              | 95,300         | 4,500            | 3,960            | 15,900        |
| Dedicated Influent     | 840            | 4.5           | 15,000      | 150              | 102,000        | 4,440            | 3,700            | 14,400        |
| Method Blank           | <0.2           | <0.5          | <50         | <1               | <250           | <50              | <50              | <250          |
|                        |                |               |             |                  |                |                  |                  |               |
| Influent Statistics    |                |               |             |                  |                |                  |                  |               |
| Dissolved Metals       |                |               |             |                  |                |                  |                  |               |
|                        | Arsenic        | Copper        | Iron        | Manganese        | Calcium        | Magnesium        | Potassium        | Sodium        |
| Mean                   | 870            | 4.075         | 16,000      | 160              | 92125          | 4457.5           | 3,888            | 15150         |
| Standard Deviation     | 28             | 3             | 1,414       | 14               | 3314           | 166              | 221              | 768           |
| Standard Deviation (%) | 3%             | 72%           | 9%          | 9%               | 4%             | 4%               | 6%               | 5%            |
| RPD                    | 7%             | 109%          | 18%         | 18%              | 8%             | 9%               | 13%              | 11%           |
| Total Metals           |                |               |             |                  |                |                  |                  |               |
|                        | Arsenic        | Copper        | Iron        | Manganese        | Calcium        | Magnesium        | Potassium        | Sodium        |
| Mean                   | 842.5          | 6.125         | 17,000      | 165              | 95600          | 4525             | 3,943            | 15300         |
| Standard Deviation     | 13             | 3             | 2,160       | 13               | 5319           | 133              | 201              | 698           |
| Standard Deviation (%) | 1%             | 53%           | 13%         | 8%               | 6%             | 3%               | 5%               | 5%            |
| RPD                    | 4%             | 89%           | 29%         | 18%              | 14%            | 6%               | 12%              | 10%           |

| Average of Day 1 and Day 2 RPDs |         |        |      |           |         |           |           |        |
|---------------------------------|---------|--------|------|-----------|---------|-----------|-----------|--------|
|                                 | Arsenic | Copper | Iron | Manganese | Calcium | Magnesium | Potassium | Sodium |
| Dissolved                       | 6%      | 58%    | 16%  | 18%       | 8%      | 10%       | 15%       | 16%    |
| Total                           | 4%      | 95%    | 23%  | 21%       | 14%     | 10%       | 16%       | 13%    |

Notes:

- ug/L = micrograms per liter
- PRD = Relative percent difference between minimum and maximum values
- Red font indicates the reporting limit of a nondetect result
- Green highlight indicates the result exceeds an RPD of 30%

| 4/24 Influent Samples  |                |               |             |                  |                |                  |                  |               |
|------------------------|----------------|---------------|-------------|------------------|----------------|------------------|------------------|---------------|
|                        |                |               |             |                  |                |                  |                  |               |
| Analytical Results     |                |               |             |                  |                |                  |                  |               |
| Dissolved Metals       |                |               |             |                  |                |                  |                  |               |
| Column                 | Arsenic (ug/L) | Copper (ug/L) | Iron (ug/L) | Manganese (ug/L) | Calcium (ug/L) | Magnesium (ug/L) | Potassium (ug/L) | Sodium (ug/L) |
| Control                | 720            | 2.5           | 14,000      | 170              | 78,800         | 4,930            | 4,290            | 15,800        |
| 25 ZVI                 | 690            | 2.5           | 15,000      | 180              | 77,600         | 4,770            | 4,220            | 16,000        |
| 58 ZVI                 | 680            | 2.7           | 13,000      | 160              | 80,500         | 4,620            | 4,090            | 16,900        |
| Dedicated Influent     | 690            | 2.5           | 13,000      | 150              | 84,800         | 4,410            | 3,650            | 13,800        |
| Method Blank           | <0.2           | <0.5          | <50         | <1               | <250           | <50              | <50              | <250          |
| Total Metals           |                |               |             |                  |                |                  |                  |               |
| Column                 | Arsenic (ug/L) | Copper (ug/L) | Iron (ug/L) | Manganese (ug/L) | Calcium (ug/L) | Magnesium (ug/L) | Potassium (ug/L) | Sodium (ug/L) |
| Control                | 750            | 3.3           | 17,000      | 190              | 80,300         | 5,030            | 4,340            | 16,200        |
| 25 ZVI                 | 740            | 10            | 18,000      | 190              | 74,500         | 4,510            | 3,960            | 15,100        |
| 58 ZVI                 | 730            | 6.2           | 17,000      | 180              | 80,700         | 4,720            | 4,080            | 16,300        |
| Dedicated Influent     | 720            | 3.6           | 15,000      | 150              | 86,600         | 4,410            | 3,580            | 13,800        |
| Method Blank           | <0.2           | <0.5          | <50         | <1               | <250           | <50              | <50              | <250          |
|                        |                |               |             |                  |                |                  |                  |               |
| Influent Statistics    |                |               |             |                  |                |                  |                  |               |
| Dissolved Metals       |                |               |             |                  |                |                  |                  |               |
|                        | Arsenic        | Copper        | Iron        | Manganese        | Calcium        | Magnesium        | Potassium        | Sodium        |
| Mean                   | 695            | 2.55          | 13,750      | 165              | 80425          | 4682.5           | 4,063            | 15625         |
| Standard Deviation     | 17             | 0             | 957         | 13               | 3150           | 221              | 287              | 1307          |
| Standard Deviation (%) | 2%             | 4%            | 7%          | 8%               | 4%             | 5%               | 7%               | 8%            |
| RPD                    | 6%             | 8%            | 14%         | 18%              | 9%             | 11%              | 16%              | 20%           |
| Total Metals           |                |               |             |                  |                |                  |                  |               |
|                        | Arsenic        | Copper        | Iron        | Manganese        | Calcium        | Magnesium        | Potassium        | Sodium        |
| Mean                   | 735            | 5.775         | 16,750      | 177.5            | 80525          | 4667.5           | 3,990            | 15350         |
| Standard Deviation     | 13             | 3             | 1,258       | 19               | 4943           | 274              | 316              | 1168          |
| Standard Deviation (%) | 2%             | 54%           | 8%          | 11%              | 6%             | 6%               | 8%               | 8%            |
| RPD                    | 4%             | 101%          | 18%         | 24%              | 15%            | 13%              | 19%              | 17%           |

Table 3 - Analytical Results

DRAFT

Project No. 25006-03  
Glacier Northwest Inc. Site

|                                |          | Day 1               |                    |          |          |          |            |                    |          |          |          |                    |          |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|------------|--------------------|----------|----------|----------|--------------------|----------|
|                                |          | Influent -<br>Day 1 | Control -<br>Day 1 |          |          |          |            | 25% ZVI -<br>Day 1 |          |          |          | 58% ZVI -<br>Day 1 |          |
|                                |          | 04/23/25            | 04/23/25           | 04/23/25 | 04/23/25 | 04/23/25 | 04/23/25   | 04/23/25           | 04/23/25 | 04/23/25 | 04/23/25 | 04/23/25           | 04/23/25 |
| Date                           | Port     | Influent            | Influent           | Port 1   | Port 2   | Port 3   | Effluent   | Influent           | Port 1   | Port 2   | Port 3   | Effluent           | Influent |
| Dissolved Metals               |          |                     |                    |          |          |          |            |                    |          |          |          |                    |          |
| Arsenic                        | ug/L     | 870                 | 850                | 770      | 650      | 620      | 660        | 910                | 38       | 2.6      | 1.1      | 1 U                | 850      |
| Calcium                        | ug/L     | 97000               | 91100              | --       | --       | --       | 76700      | 89600              | --       | --       | --       | 83300              | 90800    |
| Copper                         | ug/L     | 2.5                 | 2.5 U              | 2.5 U    | 2.7      | 5.4      | 6          | 8.5                | 2.5 U    | 5        | 12       | 2.5 U              | 2.8      |
| Iron                           | ug/L     | 15000               | 15000              | --       | --       | --       | 650        | 18000              | --       | --       | --       | 23000              | 16000    |
| Magnesium                      | ug/L     | 4280                | 4670               | --       | --       | --       | 14500      | 4490               | --       | --       | --       | 9520               | 4390     |
| Manganese                      | ug/L     | 150                 | 150                | --       | --       | --       | 260        | 180                | --       | --       | --       | 880                | 160      |
| Potassium                      | ug/L     | 3580                | 4090               | --       | --       | --       | 3280       | 3990               | --       | --       | --       | 3830               | 3890     |
| Sodium                         | ug/L     | 14000               | 15600              | --       | --       | --       | 16000      | 15500              | --       | --       | --       | 15700              | 15500    |
| Total Metals                   |          |                     |                    |          |          |          |            |                    |          |          |          |                    |          |
| Arsenic                        | ug/L     | 840                 | 860                | 720      | 660      | 650      | 690        | 840                | 47       | 7.1      | 6.6      | 1.3                | 830      |
| Calcium                        | ug/L     | 102000              | 89000              | --       | --       | --       | 76700      | 96100              | --       | --       | --       | 81200              | 95300    |
| Copper                         | ug/L     | 4.5                 | 4.2                | 4.5      | 5.2      | 9        | 4.7        | 11                 | 250      | 400      | 870      | 23                 | 4.8      |
| Iron                           | ug/L     | 15000               | 16000              | --       | --       | --       | 200        | 20000              | --       | --       | --       | 54000              | 17000    |
| Magnesium                      | ug/L     | 4440                | 4720               | --       | --       | --       | 14900      | 4440               | --       | --       | --       | 9730               | 4500     |
| Manganese                      | ug/L     | 150                 | 160                | --       | --       | --       | 240        | 180                | --       | --       | --       | 1000               | 170      |
| Potassium                      | ug/L     | 3700                | 4190               | --       | --       | --       | 3370       | 3920               | --       | --       | --       | 3920               | 3960     |
| Sodium                         | ug/L     | 14400               | 15800              | --       | --       | --       | 16400      | 15100              | --       | --       | --       | 16300              | 15900    |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |            |                    |          |          |          |                    |          |
| Pentachlorophenol              | ug/L     | 540 J               | 530 J              | --       | --       | --       | 430        | --                 | --       | --       | --       | --                 | 500 J    |
| Conventionals                  |          |                     |                    |          |          |          |            |                    |          |          |          |                    |          |
| Alkalinity, Total              | mg/L     | 236                 | 167                | --       | --       | --       | 258        | 233                | --       | --       | --       | 135                | 192      |
| Bromide                        | mg/L     | 0.600 U             | 0.600 U            | --       | --       | --       | 0.600 U    | 0.600 U            | --       | --       | --       | 0.600 U            | 0.600 U  |
| Chloride                       | mg/L     | 4.10                | 4.60               | --       | --       | --       | 4.70       | 4.85               | --       | --       | --       | 5.00               | 4.69     |
| Fluoride                       | mg/L     | 0.168               | 0.181              | --       | --       | --       | 0.797      | 0.179              | --       | --       | --       | 0.145              | 0.171    |
| Nitrate as Nitrogen            | mg/L     | 0.791               | 0.200 U            | --       | --       | --       | 0.200 U    | 0.200 U            | --       | --       | --       | 0.200 U            | 0.200 U  |
| Nitrite as Nitrogen            | mg/L     | 0.200 U             | 0.200 U            | --       | --       | --       | 0.200 U    | 0.200 U            | --       | --       | --       | 0.200 U            | 0.200 U  |
| Orthophosphate                 | mg/L     | 0.400 U             | 0.400 U            | --       | --       | --       | 0.983 J    | 0.400 U            | --       | --       | --       | 0.400 UJ           | 0.400 U  |
| Salinity                       | %        | 0.0100              | 0.0100             | --       | --       | --       | 0.000100 U | 0.0100             | --       | --       | --       | 0.000100 U         | 0.0100   |
| Sulfate                        | mg/L     | 3.00                | 3.76               | --       | --       | --       | 2.92       | 2.09               | --       | --       | --       | 2.78               | 1.95     |
| Total Dissolved Solids         | mg/L     | 140                 | 310                | --       | --       | --       | 210        | 210                | --       | --       | --       | 250                | 230      |
| Total Organic Carbon           | mg/L     | 5.05                | 4.74               | --       | --       | --       | 4.04       | 4.88               | --       | --       | --       | 0.861              | 4.84     |
| Field Parameters               |          |                     |                    |          |          |          |            |                    |          |          |          |                    |          |
| Specific Conductance           | uS/cm    | 456.04              | 434.69             | 420.15   | 415.33   | 408.53   | 503.08     | 445.72             | 653.99   | 634.62   | 532.75   | 525.04             | 430.34   |
| Dissolved Oxygen               | mg/L     | 3.69                | 4.18               | 3.08     | 2.76     | 2.77     | 5.76       | 3.55               | 0.26     | 1        | 0.8      | 1.37               | 3.86     |
| pH                             | pH units | 6.54                | 6.55               | 6.45     | 6.45     | 6.45     | 6.4        | 6.56               | 7.33     | 7.56     | 7.46     | 7.61               | 6.61     |
| Oxidation Reduction Potential  | mV       | -69                 | -73.8              | 16.4     | 89.9     | 58.7     | 203.9      | -82.1              | -519.4   | -573.5   | -495     | -347               | -78.1    |

Notes

- ZVI = zero valent iron
- ug/L = micrograms per liter
- mV = millivolts
- mg/L = milligrams per liter
- uS/cm = microSiemens per centimeter
- Bold - detected
- "--" - indicates results not available
- U - Analyte not detected at or above Reporting Limit shown
- J - Result value estimated
- UJ - Analyte not detected and the Reporting Limit is an estimate



Table 3 - Analytical Results

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|                                |          | Day 2               |                    |          |          |          |          |                    |          |          |          |            |                    |          |          |          |            |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|----------|--------------------|----------|----------|----------|------------|--------------------|----------|----------|----------|------------|
|                                |          | Influent -<br>Day 2 | Control -<br>Day 2 |          |          |          |          | 25% ZVI -<br>Day 2 |          |          |          |            | 58% ZVI -<br>Day 2 |          |          |          |            |
|                                |          |                     | 04/24/25           | 04/24/25 | 04/24/25 | 04/24/25 | 04/24/25 | 04/24/25           | 04/24/25 | 04/24/25 | 04/24/25 | 04/24/25   | 04/24/25           | 04/24/25 | 04/24/25 | 04/24/25 | 04/24/25   |
| Date                           | Port     | Influent            | Influent           | Port 1   | Port 2   | Port 3   | Effluent | Influent           | Port 1   | Port 2   | Port 3   | Effluent   | Influent           | Port 1   | Port 2   | Port 3   | Effluent   |
| Dissolved Metals               |          |                     |                    |          |          |          |          |                    |          |          |          |            |                    |          |          |          |            |
| Arsenic                        | ug/L     | 690                 | 720                | 360      | 320      | 380      | 460      | 690                | 42       | 7.8      | 1 U      | 1 U        | 680                | 10       | 1 U      | 1 U      | 1 U        |
| Calcium                        | ug/L     | 84800               | 78800              | --       | --       | --       | 76400    | 77600              | --       | --       | --       | 77100      | 80500              | --       | --       | --       | 61000      |
| Copper                         | ug/L     | 2.5 U               | 2.5 U              | 2.6 U    | 2.6 U    | 4        | 2.5      | 2.5 U              | 2.6 U    | 3.1      | 2.6 U    | 2.5 U      | 2.7                | 2.6 U    | 2.6 U    | 2.6 U    | 2.5 U      |
| Iron                           | ug/L     | 13000               | 14000              | --       | --       | --       | 250      | 15000              | --       | --       | --       | 63000      | 13000              | --       | --       | --       | 27000      |
| Magnesium                      | ug/L     | 4410                | 4930               | --       | --       | --       | 7860     | 4770               | --       | --       | --       | 6580       | 4620               | --       | --       | --       | 6460       |
| Manganese                      | ug/L     | 150                 | 170                | --       | --       | --       | 490      | 180                | --       | --       | --       | 870        | 160                | --       | --       | --       | 450        |
| Potassium                      | ug/L     | 3650                | 4290               | --       | --       | --       | 3710     | 4220               | --       | --       | --       | 3880       | 4090               | --       | --       | --       | 4120       |
| Sodium                         | ug/L     | 13800               | 15800              | --       | --       | --       | 16100    | 16000              | --       | --       | --       | 16100      | 16900              | --       | --       | --       | 16300      |
| Total Metals                   |          |                     |                    |          |          |          |          |                    |          |          |          |            |                    |          |          |          |            |
| Arsenic                        | ug/L     | 720                 | 750                | 360      | 320      | 380      | 480      | 740                | 47       | 16       | 5.8      | 1.7        | 730                | 17       | 1 U      | 3.1      | 1          |
| Calcium                        | ug/L     | 86600               | 80300              | --       | --       | --       | 73600    | 74500              | --       | --       | --       | 80700      | 80700              | --       | --       | --       | 65800      |
| Copper                         | ug/L     | 3.6                 | 3.3                | 3.2      | 4.5      | 22       | 5.1      | 10                 | 11       | 88       | 260      | 6.8        | 6.2                | 2.5 U    | 2.5 U    | 90       | 2.5 U      |
| Iron                           | ug/L     | 15000 J             | 17000 J            | --       | --       | --       | 450      | 18000 J            | --       | --       | --       | 85000      | 17000 J            | --       | --       | --       | 43000 J    |
| Magnesium                      | ug/L     | 4410                | 5030               | --       | --       | --       | 7760     | 4510               | --       | --       | --       | 6780       | 4720               | --       | --       | --       | 6930       |
| Manganese                      | ug/L     | 150                 | 190                | --       | --       | --       | 510      | 190                | --       | --       | --       | 900        | 180                | --       | --       | --       | 480        |
| Potassium                      | ug/L     | 3580                | 4340               | --       | --       | --       | 3580     | 3960               | --       | --       | --       | 3960       | 4080               | --       | --       | --       | 4170       |
| Sodium                         | ug/L     | 13800               | 16200              | --       | --       | --       | 15700    | 15100              | --       | --       | --       | 16300      | 16300              | --       | --       | --       | 17100      |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |          |                    |          |          |          |            |                    |          |          |          |            |
| Pentachlorophenol              | ug/L     | --                  | --                 | --       | --       | --       | --       | --                 | --       | --       | --       | --         | --                 | --       | --       | --       | 0.2 U      |
| Conventionals                  |          |                     |                    |          |          |          |          |                    |          |          |          |            |                    |          |          |          |            |
| Alkalinity, Total              | mg/L     | 198                 | 204                | --       | --       | --       | 246      | 197                | --       | --       | --       | 183        | 204                | --       | --       | --       | 109        |
| Bromide                        | mg/L     | 0.600 U             | 0.600 U            | --       | --       | --       | 0.600 U  | 0.600 U            | --       | --       | --       | 0.600 U    | 0.600 U            | --       | --       | --       | 0.600 U    |
| Chloride                       | mg/L     | 3.68                | 4.48               | --       | --       | --       | 4.48     | 4.50               | --       | --       | --       | 4.63       | 4.55               | --       | --       | --       | 4.97       |
| Fluoride                       | mg/L     | 0.165               | 0.178              | --       | --       | --       | 0.104    | 0.176              | --       | --       | --       | 0.120      | 0.171              | --       | --       | --       | 0.109      |
| Nitrate as Nitrogen            | mg/L     | 0.200 U             | 0.200 U            | --       | --       | --       | 0.200 U  | 0.200 U            | --       | --       | --       | 0.200 U    | 0.200 U            | --       | --       | --       | 0.200 U    |
| Nitrite as Nitrogen            | mg/L     | 0.200 U             | 0.200 U            | --       | --       | --       | 0.200 U  | 0.200 U            | --       | --       | --       | 0.200 U    | 0.200 U            | --       | --       | --       | 0.200 U    |
| Orthophosphate                 | mg/L     | 0.400 U             | 0.400 U            | --       | --       | --       | 0.901    | 0.400 U            | --       | --       | --       | 0.400 U    | 0.400 U            | --       | --       | --       | 0.400 U    |
| Salinity                       | %        | 0.000100 U          | 0.0100             | --       | --       | --       | 0.0100   | 0.0100             | --       | --       | --       | 0.000100 U | 0.000100 U         | --       | --       | --       | 0.000100 U |
| Sulfate                        | mg/L     | 3.36                | 2.53               | --       | --       | --       | 2.60     | 2.51               | --       | --       | --       | 2.93       | 2.10               | --       | --       | --       | 2.96       |
| Total Dissolved Solids         | mg/L     | 180                 | 210                | --       | --       | --       | 330 J    | 110                | --       | --       | --       | 150        | 110                | --       | --       | --       | 214 J      |
| Total Organic Carbon           | mg/L     | 4.84                | 4.53               | --       | --       | --       | 4.46     | 4.59               | --       | --       | --       | 1.58       | 4.57               | --       | --       | --       | 0.925      |
| Field Parameters               |          |                     |                    |          |          |          |          |                    |          |          |          |            |                    |          |          |          |            |
| Specific Conductance           | uS/cm    | 359.24              | 346.35             | 315.93   | 321.26   | 352.19   | 427.78   | 337.13             | 363.86   | 305.37   | 381.68   | 518.58     | 334.01             | 455.16   | 439.45   | 370.96   | 198.2      |
| Dissolved Oxygen               | mg/L     | 3.02                | 4.18               | 3.87     | 3.7      | 5.46     | 5.02     | 4.47               | 4.86     | 5.34     | 6.26     | 3.53       | 4.13               | 0.88     | 1.44     | 1.16     | 4.09       |
| pH                             | pH units | 6.26                | 6.13               | 6.45     | 6.4      | 6.43     | 6.24     | 6.14               | 6.9      | 6.94     | 6.95     | 7.13       | 6.18               | 7.03     | 7.25     | 7.2      | 6.98       |
| Oxidation Reduction Potential  | mV       | -73.9               | -84.1              | -31.8    | -3.4     | 123.9    | 210.8    | -84.7              | -122.1   | -24.1    | -157     | -257.9     | -82.2              | -213.5   | -319.2   | -351.1   | -215.7     |

Notes

ZVI = zero valent iron  
ug/L = micrograms per liter  
mV = millivolts  
mg/L = milligrams per liter  
uS/cm = microSiemens per centimeter

**Bold - detected**  
"--" - indicates results not available  
U - Analyte not detected at or above Reporting Limit shown  
J - Result value estimated  
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Table 3 - Analytical Results

DRAFT

|                                |          | Day 3               |                    |          |          |          |          |                    |          |          |          |          |                    |          |          |          |          |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|----------|--------------------|----------|----------|----------|----------|--------------------|----------|----------|----------|----------|
|                                |          | Influent -<br>Day 3 | Control -<br>Day 3 |          |          |          |          | 25% ZVI -<br>Day 3 |          |          |          |          | 58% ZVI -<br>Day 3 |          |          |          |          |
|                                |          |                     | 04/25/25           | 04/25/25 | 04/25/25 | 04/25/25 | 04/25/25 | 04/25/25           | 04/25/25 | 04/25/25 | 04/25/25 | 04/25/25 | 04/25/25           | 04/25/25 | 04/25/25 | 04/25/25 | 04/25/25 |
| Date                           | Port     | Influent            | Influent           | Port 1   | Port 2   | Port 3   | Effluent | Influent           | Port 1   | Port 2   | Port 3   | Effluent | Influent           | Port 1   | Port 2   | Port 3   | Effluent |
| Dissolved Metals               |          |                     |                    |          |          |          |          |                    |          |          |          |          |                    |          |          |          |          |
| Arsenic                        | ug/L     | 740                 | --                 | 300      | 310      | 330      | 380      | --                 | 160      | 25       | 2.2      | 1 U      | --                 | 9.7      | 2.3      | 1 U      | 1 U      |
| Calcium                        | ug/L     | 71400               | --                 | --       | --       | --       | 64000    | --                 | --       | --       | --       | 62600    | --                 | --       | --       | --       | 59200    |
| Copper                         | ug/L     | 3.3                 | --                 | 3.1      | 2.5 U    | 4.4      | 3.7      | --                 | 8.6      | 2.7      | 8.4      | 2.5 U    | --                 | 2.5 U    | 2.5 U    | 5.5      | 2.5 U    |
| Iron                           | ug/L     | 14000               | --                 | --       | --       | --       | 340      | --                 | --       | --       | --       | 86000    | --                 | --       | --       | --       | 36000    |
| Magnesium                      | ug/L     | 4330                | --                 | --       | --       | --       | 6320     | --                 | --       | --       | --       | 5530     | --                 | --       | --       | --       | 5930     |
| Manganese                      | ug/L     | 170                 | --                 | --       | --       | --       | 520      | --                 | --       | --       | --       | 900      | --                 | --       | --       | --       | 340      |
| Potassium                      | ug/L     | 3520                | --                 | --       | --       | --       | 3960     | --                 | --       | --       | --       | 3740     | --                 | --       | --       | --       | 3950     |
| Sodium                         | ug/L     | 13300               | --                 | --       | --       | --       | 15100    | --                 | --       | --       | --       | 15500    | --                 | --       | --       | --       | 15700    |
| Total Metals                   |          |                     |                    |          |          |          |          |                    |          |          |          |          |                    |          |          |          |          |
| Arsenic                        | ug/L     | 730                 | --                 | 330      | 320      | 350      | 380      | --                 | 190      | 110      | 20       | 1 U      | --                 | 23       | 3.8      | 3.6      | 1 U      |
| Calcium                        | ug/L     | 75400 J             | --                 | --       | --       | --       | 66600    | --                 | --       | --       | --       | 70600    | --                 | --       | --       | --       | 64000    |
| Copper                         | ug/L     | 3.3                 | --                 | 2.6      | 3.7      | 4.4      | 4.4      | --                 | 4.8      | 9.1      | 1000     | 6.7      | --                 | 150      | 2.5 U    | 550      | 2.5 U    |
| Iron                           | ug/L     | 15000               | --                 | --       | --       | --       | 280      | --                 | --       | --       | --       | 98000    | --                 | --       | --       | --       | 44000    |
| Magnesium                      | ug/L     | 4250                | --                 | --       | --       | --       | 6300     | --                 | --       | --       | --       | 5420     | --                 | --       | --       | --       | 5690     |
| Manganese                      | ug/L     | 160                 | --                 | --       | --       | --       | 550      | --                 | --       | --       | --       | 860      | --                 | --       | --       | --       | 360      |
| Potassium                      | ug/L     | 3540                | --                 | --       | --       | --       | 3960     | --                 | --       | --       | --       | 3680     | --                 | --       | --       | --       | 3880     |
| Sodium                         | ug/L     | 12900               | --                 | --       | --       | --       | 15000    | --                 | --       | --       | --       | 15000    | --                 | --       | --       | --       | 15300    |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |          |                    |          |          |          |          |                    |          |          |          |          |
| Pentachlorophenol              | ug/L     | --                  | --                 | --       | --       | --       | --       | --                 | --       | --       | --       | --       | --                 | --       | --       | --       | --       |
| Conventionals                  |          |                     |                    |          |          |          |          |                    |          |          |          |          |                    |          |          |          |          |
| Alkalinity, Total              | mg/L     | 219                 | --                 | --       | --       | --       | 231      | --                 | --       | --       | --       | 225      | --                 | --       | --       | --       | 185      |
| Bromide                        | mg/L     | 0.600 U             | --                 | --       | --       | --       | 0.600 U  | --                 | --       | --       | --       | 0.600 U  | --                 | --       | --       | --       | 0.600 U  |
| Chloride                       | mg/L     | 3.67                | --                 | --       | --       | --       | 4.44     | --                 | --       | --       | --       | 4.58     | --                 | --       | --       | --       | 4.85     |
| Fluoride                       | mg/L     | 0.166               | --                 | --       | --       | --       | 0.124    | --                 | --       | --       | --       | 0.129    | --                 | --       | --       | --       | 0.104    |
| Nitrate as Nitrogen            | mg/L     | 0.200 UJ            | --                 | --       | --       | --       | 0.200 UJ | --                 | --       | --       | --       | 0.200 UJ | --                 | --       | --       | --       | 0.200 UJ |
| Nitrite as Nitrogen            | mg/L     | 0.200 UJ            | --                 | --       | --       | --       | 0.200 UJ | --                 | --       | --       | --       | 0.200 UJ | --                 | --       | --       | --       | 0.200 UJ |
| Orthophosphate                 | mg/L     | 0.400 UJ            | --                 | --       | --       | --       | 0.501 J  | --                 | --       | --       | --       | 0.400 UJ | --                 | --       | --       | --       | 0.400 UJ |
| Salinity                       | %        | 0.0100              | --                 | --       | --       | --       | 0.0100   | --                 | --       | --       | --       | 0.0100   | --                 | --       | --       | --       | 0.0100   |
| Sulfate                        | mg/L     | 3.64                | --                 | --       | --       | --       | 3.00     | --                 | --       | --       | --       | 3.34     | --                 | --       | --       | --       | 2.88     |
| Total Dissolved Solids         | mg/L     | 278                 | --                 | --       | --       | --       | 278      | --                 | --       | --       | --       | 236      | --                 | --       | --       | --       | 234      |
| Total Organic Carbon           | mg/L     | 5.24                | --                 | --       | --       | --       | 4.09     | --                 | --       | --       | --       | 2.43     | --                 | --       | --       | --       | 1.35     |
| Field Parameters               |          |                     |                    |          |          |          |          |                    |          |          |          |          |                    |          |          |          |          |
| Specific Conductance           | uS/cm    | 303.54              | 313.96             | 302.44   | 294.45   | 305.03   | 455.23   | 308.41             | 446.94   | 393.55   | 439.27   | 461.77   | 312.47             | 395.94   | 442.15   | 447.89   | 351.39   |
| Dissolved Oxygen               | mg/L     | 5.98                | 5.76               | 7.14     | 6.73     | 7.47     | 7.57     | 6.73               | 3.88     | 4.7      | 6.16     | 4.42     | 6.53               | 3.45     | 3.51     | 7.71     | 3.64     |
| pH                             | pH units | 6.64                | 6.61               | 6.55     | 6.15     | 6.61     | 6.5      | 6.76               | 6.86     | 6.83     | 6.78     | 6.78     | 6.65               | 6.93     | 7.02     | 7.07     | 7.18     |
| Oxidation Reduction Potential  | mV       | -69.3               | -94.2              | 27.19    | 45.7     | 102      | 212.3    | -89                | -181.2   | -136.5   | -109     | -149.1   | -79.7              | -142.8   | -172.9   | -37.2    | -276.6   |

Notes

ZVI = zero valent iron  
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mg/L = milligrams per liter  
uS/cm = microSiemens per centimeter

**Bold - detected**  
"--" - indicates results not available  
U - Analyte not detected at or above Reporting Limit shown  
J - Result value estimated  
UJ - Analyte not detected and the Reporting Limit is an estimate

Table 3 - Analytical Results

DRAFT

|                                |          | Day 4               |                    |          |          |          |                    |          |          |          |                    |          |          |          |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|
|                                |          | Influent -<br>Day 4 | Control -<br>Day 4 |          |          |          | 25% ZVI -<br>Day 4 |          |          |          | 58% ZVI -<br>Day 4 |          |          |          |
|                                |          | 04/26/25            | 04/26/25           | 04/26/25 | 04/26/25 | 04/26/25 | 04/26/25           | 04/26/25 | 04/26/25 | 04/26/25 | 04/26/25           | 04/26/25 | 04/26/25 | 04/26/25 |
| Date                           |          | 04/26/25            | 04/26/25           | 04/26/25 | 04/26/25 | 04/26/25 | 04/26/25           | 04/26/25 | 04/26/25 | 04/26/25 | 04/26/25           | 04/26/25 | 04/26/25 | 04/26/25 |
| Port                           |          | Influent            | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent |
| Dissolved Metals               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 700                 | 340                | 350      | 310      | 340      | 210                | 42       | 9.6      | 1.1      | 61                 | 19       | 1 U      | 1 U      |
| Calcium                        | ug/L     | 68600               | --                 | --       | --       | 63700    | --                 | --       | --       | 61800    | --                 | --       | --       | 61700    |
| Copper                         | ug/L     | 2.6 U               | 2.5 U              | 2.5 U    | 4.8      | 3.5      | 4.8                | 2.5 U    | 2.5 U    | 2.6 U    | 2.5 U              | 2.5 U    | 2.5 U    | 2.6 U    |
| Iron                           | ug/L     | 13000               | --                 | --       | --       | 300      | --                 | --       | --       | 88000    | --                 | --       | --       | 49000    |
| Magnesium                      | ug/L     | 4310                | --                 | --       | --       | 5900     | --                 | --       | --       | 5230     | --                 | --       | --       | 5510     |
| Manganese                      | ug/L     | 130                 | --                 | --       | --       | 530      | --                 | --       | --       | 740      | --                 | --       | --       | 350      |
| Potassium                      | ug/L     | 3590                | --                 | --       | --       | 3950     | --                 | --       | --       | 3720     | --                 | --       | --       | 3930     |
| Sodium                         | ug/L     | 13300               | --                 | --       | --       | 15300    | --                 | --       | --       | 15200    | --                 | --       | --       | 15700    |
| Total Metals                   |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 690                 | 370                | 330      | 320      | 340      | 310                | 180      | 28       | 1.8      | 88                 | 77       | 1 U      | 1 U      |
| Calcium                        | ug/L     | 70800               | --                 | --       | --       | 70100    | --                 | --       | --       | 70400    | --                 | --       | --       | 68500    |
| Copper                         | ug/L     | 2.6                 | 3.1                | 5        | 6.5      | 3.3      | 76                 | 34       | 37       | 5.6      | 7.8                | 1100     | 2.5 U    | 2.5 U    |
| Iron                           | ug/L     | 15000               | --                 | --       | --       | 310      | --                 | --       | --       | 110000   | --                 | --       | --       | 56000    |
| Magnesium                      | ug/L     | 4160                | --                 | --       | --       | 5730     | --                 | --       | --       | 5180     | --                 | --       | --       | 5310     |
| Manganese                      | ug/L     | 150                 | --                 | --       | --       | 570      | --                 | --       | --       | 790      | --                 | --       | --       | 330      |
| Potassium                      | ug/L     | 3530                | --                 | --       | --       | 3940     | --                 | --       | --       | 3720     | --                 | --       | --       | 3880     |
| Sodium                         | ug/L     | 12800               | --                 | --       | --       | 14900    | --                 | --       | --       | 14800    | --                 | --       | --       | 15200    |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Pentachlorophenol              | ug/L     | 570 J               | --                 | --       | --       | 710 J    | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Conventionals                  |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Alkalinity, Total              | mg/L     | 185                 | --                 | --       | --       | 209      | --                 | --       | --       | 109      | --                 | --       | --       | 94.8     |
| Bromide                        | mg/L     | 0.600 U             | --                 | --       | --       | 0.600 U  | --                 | --       | --       | 0.600 U  | --                 | --       | --       | 0.600 U  |
| Chloride                       | mg/L     | 3.66                | --                 | --       | --       | 4.37     | --                 | --       | --       | 4.54     | --                 | --       | --       | 4.68     |
| Fluoride                       | mg/L     | 0.171               | --                 | --       | --       | 0.136    | --                 | --       | --       | 0.137    | --                 | --       | --       | 0.114    |
| Nitrate as Nitrogen            | mg/L     | 0.200 UJ            | --                 | --       | --       | 0.200 UJ | --                 | --       | --       | 0.200 UJ | --                 | --       | --       | 0.200 UJ |
| Nitrite as Nitrogen            | mg/L     | 0.200 UJ            | --                 | --       | --       | 0.200 UJ | --                 | --       | --       | 0.200 UJ | --                 | --       | --       | 0.200 UJ |
| Orthophosphate                 | mg/L     | 0.400 UJ            | --                 | --       | --       | 0.718 J  | --                 | --       | --       | 0.400 UJ | --                 | --       | --       | 0.400 UJ |
| Salinity                       | %        | 0.0100              | --                 | --       | --       | 0.0100   | --                 | --       | --       | 0.0100   | --                 | --       | --       | 0.0100   |
| Sulfate                        | mg/L     | 3.92                | --                 | --       | --       | 3.37     | --                 | --       | --       | 3.69     | --                 | --       | --       | 3.12     |
| Total Dissolved Solids         | mg/L     | 286                 | --                 | --       | --       | 215      | --                 | --       | --       | 254      | --                 | --       | --       | 216      |
| Total Organic Carbon           | mg/L     | 4.98                | --                 | --       | --       | 4.05     | --                 | --       | --       | 3.11     | --                 | --       | --       | 1.89 J   |
| Field Parameters               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Specific Conductance           | uS/cm    | 359.31              | 351.14             | 343.66   | 333      | 392.74   | 447.14             | 396.94   | 494.23   | 545.54   | 483.73             | 446.39   | 476.2    | 368.66   |
| Dissolved Oxygen               | mg/L     | 6.75                | 5.57               | 6.94     | 5.96     | 6.84     | 5.28               | 7.29     | 5.45     | 6.25     | 4.7                | 5.9      | 5.44     | 7.65     |
| pH                             | pH units | 6.75                | 6.51               | 6.6      | 6.8      | 6.45     | 6.76               | 6.77     | 7.01     | 6.83     | 6.95               | 6.87     | 7.06     | 6.9      |
| Oxidation Reduction Potential  | mV       | -73.2               | -29.6              | -12.2    | -75.1    | 208.3    | -99.4              | -70.2    | -124.3   | -93.8    | -129.6             | -127.7   | -144.7   | -100.8   |

Notes

ZVI = zero valent iron  
ug/L = micrograms per liter  
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mg/L = milligrams per liter  
uS/cm = microSiemens per centimeter

**Bold - detected**  
"--" - indicates results not available  
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Table 3 - Analytical Results

DRAFT

|                                |          | Day 5               |                    |          |          |          |                    |          |          |          |                    |          |          |          |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|
|                                |          | Influent -<br>Day 5 | Control -<br>Day 5 |          |          |          | 25% ZVI -<br>Day 5 |          |          |          | 58% ZVI -<br>Day 5 |          |          |          |
|                                |          | 04/27/25            | 04/27/25           | 04/27/25 | 04/27/25 | 04/27/25 | 04/27/25           | 04/27/25 | 04/27/25 | 04/27/25 | 04/27/25           | 04/27/25 | 04/27/25 | 04/27/25 |
| Date                           |          | Influent            | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent |
| Port                           |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Dissolved Metals               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 800                 | 490                | 460      | 420      | 470      | 220                | 79       | 61       | 8.1      | 76                 | 5.4      | 1.3      | 1 U      |
| Calcium                        | ug/L     | 67500               | --                 | --       | --       | 64800    | --                 | --       | --       | 62300    | --                 | --       | --       | --       |
| Copper                         | ug/L     | 2.6 U               | 2.5 U              | 2.5 U    | 3.4      | 3.7      | 2.5 U              | 2.5 U    | 3.5      | 3.4      | 2.5 U              | 2.5 U    | 2.5 U    | 2.6 U    |
| Iron                           | ug/L     | 14000               | --                 | --       | --       | 270      | --                 | --       | --       | 120000   | --                 | --       | --       | 77000    |
| Magnesium                      | ug/L     | 4450                | --                 | --       | --       | 5740     | --                 | --       | --       | 5260     | --                 | --       | --       | --       |
| Manganese                      | ug/L     | 140                 | --                 | --       | --       | 560      | --                 | --       | --       | 1100     | --                 | --       | --       | 440      |
| Potassium                      | ug/L     | 3660                | --                 | --       | --       | 3830     | --                 | --       | --       | 3740     | --                 | --       | --       | --       |
| Sodium                         | ug/L     | 13300               | --                 | --       | --       | 14900    | --                 | --       | --       | 15200    | --                 | --       | --       | --       |
| Total Metals                   |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 740                 | 460                | 470      | 370      | 460      | 320                | 250      | 73       | 9.2      | 220                | 90       | 9.3      | 1 U      |
| Calcium                        | ug/L     | 73800               | --                 | --       | --       | 70600    | --                 | --       | --       | 70300    | --                 | --       | --       | --       |
| Copper                         | ug/L     | 2.5                 | 3.4                | 3.8      | 4.4      | 3.5      | 19                 | 22       | 21       | 2.8      | 3.7                | 170      | 180      | 2.5 U    |
| Iron                           | ug/L     | 14000               | --                 | --       | --       | 270      | --                 | --       | --       | 120000   | --                 | --       | --       | 80000    |
| Magnesium                      | ug/L     | 4180                | --                 | --       | --       | 5890     | --                 | --       | --       | 5210     | --                 | --       | --       | --       |
| Manganese                      | ug/L     | 150                 | --                 | --       | --       | 600      | --                 | --       | --       | 740      | --                 | --       | --       | 460      |
| Potassium                      | ug/L     | 3500                | --                 | --       | --       | 4070     | --                 | --       | --       | 3710     | --                 | --       | --       | --       |
| Sodium                         | ug/L     | 12500               | --                 | --       | --       | 15300    | --                 | --       | --       | 15000    | --                 | --       | --       | --       |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Pentachlorophenol              | ug/L     | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | 16       |
| Conventionals                  |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Alkalinity, Total              | mg/L     | 235                 | --                 | --       | --       | 250      | --                 | --       | --       | 199      | --                 | --       | --       | --       |
| Bromide                        | mg/L     | 0.600 U             | --                 | --       | --       | 0.600 U  | --                 | --       | --       | 0.600 U  | --                 | --       | --       | --       |
| Chloride                       | mg/L     | 3.86                | --                 | --       | --       | 4.51     | --                 | --       | --       | 4.74     | --                 | --       | --       | --       |
| Fluoride                       | mg/L     | 0.168               | --                 | --       | --       | 0.142    | --                 | --       | --       | 0.141    | --                 | --       | --       | --       |
| Nitrate as Nitrogen            | mg/L     | 0.200 UJ            | --                 | --       | --       | 0.200 UJ | --                 | --       | --       | 0.200 UJ | --                 | --       | --       | --       |
| Nitrite as Nitrogen            | mg/L     | 0.200 UJ            | --                 | --       | --       | 0.200 UJ | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Orthophosphate                 | mg/L     | 0.400 UJ            | --                 | --       | --       | 0.641 J  | --                 | --       | --       | 0.400 UJ | --                 | --       | --       | --       |
| Salinity                       | %        | 0.0100              | --                 | --       | --       | 0.0100   | --                 | --       | --       | 0.0100   | --                 | --       | --       | --       |
| Sulfate                        | mg/L     | 3.91                | --                 | --       | --       | 3.53     | --                 | --       | --       | 3.87     | --                 | --       | --       | --       |
| Total Dissolved Solids         | mg/L     | 278                 | --                 | --       | --       | 276      | --                 | --       | --       | 286      | --                 | --       | --       | --       |
| Total Organic Carbon           | mg/L     | 5.24                | --                 | --       | --       | 4.27     | --                 | --       | --       | 3.86     | --                 | --       | --       | --       |
| Field Parameters               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Specific Conductance           | uS/cm    | 370.18              | 346.11             | 324.58   | 326.75   | 471.97   | 412.3              | 486.65   | 383.78   | 557.78   | 500.67             | 449.2    | 369.07   | 491.91   |
| Dissolved Oxygen               | mg/L     | 3.33                | 6.79               | 6.67     | 7.27     | 7.29     | 5.85               | 5.87     | 6.95     | 6.55     | 5.08               | 5.88     | 8.61     | 7.61     |
| pH                             | pH units | 6.41                | 6.38               | 6.51     | 6.63     | 6.45     | 6.54               | 6.75     | 6.62     | 6.71     | 6.78               | 6.94     | 6.83     | 6.7      |
| Oxidation Reduction Potential  | mV       | -55.6               | 9.6                | -24.6    | 5.3      | 219      | -71.5              | -102.9   | -102.3   | -59.9    | -118.5             | -126.9   | -81.2    | -80.7    |

Notes

ZVI = zero valent iron  
ug/L = micrograms per liter  
mV = millivolts  
mg/L = milligrams per liter  
uS/cm = microSiemens per centimeter

**Bold - detected**  
"--" - indicates results not available  
U - Analyte not detected at or above Reporting Limit shown  
J - Result value estimated  
UJ - Analyte not detected and the Reporting Limit is an estimate

Table 3 - Analytical Results

DRAFT

Project No. 25006-03  
Glacier Northwest Inc. Site

|                                |          | Day 6               |                    |          |          |          |                    |          |          |          |                    |          |          |          |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|
|                                |          | Influent -<br>Day 6 | Control -<br>Day 6 |          |          |          | 25% ZVI -<br>Day 6 |          |          |          | 58% ZVI -<br>Day 6 |          |          |          |
|                                |          | 04/28/25            | 04/28/25           | 04/28/25 | 04/28/25 | 04/28/25 | 04/28/25           | 04/28/25 | 04/28/25 | 04/28/25 | 04/28/25           | 04/28/25 | 04/28/25 | 04/28/25 |
| Date                           |          | Influent            | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent |
| Port                           |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Dissolved Metals               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 670                 | 400                | 410      | 390      | 400      | 170                | 170      | 14       | 4.8      | 190                | 40       | 1.9      | 1 U      |
| Calcium                        | ug/L     | 68100               | --                 | --       | --       | 62500    | --                 | --       | --       | 59200    | --                 | --       | --       | 60800    |
| Copper                         | ug/L     | 2.5 U               | 2.5 U              | 2.5 U    | 2.5 U    | 2.5 U    | 2.5 U              | 2.5 U    | 2.5 U    | 2.5 U    | 2.5 U              | 2.5 U    | 2.5 U    | 2.5 U    |
| Iron                           | ug/L     | 14000               | --                 | --       | --       | 330      | --                 | --       | --       | 110000   | --                 | --       | --       | 86000    |
| Magnesium                      | ug/L     | 4300                | --                 | --       | --       | 5560     | --                 | --       | --       | 5180     | --                 | --       | --       | 5190     |
| Manganese                      | ug/L     | 150                 | --                 | --       | --       | 680      | --                 | --       | --       | 1000     | --                 | --       | --       | 660      |
| Potassium                      | ug/L     | 3510                | --                 | --       | --       | 3890     | --                 | --       | --       | 3830     | --                 | --       | --       | 3890     |
| Sodium                         | ug/L     | 12800               | --                 | --       | --       | 15200    | --                 | --       | --       | 15100    | --                 | --       | --       | 15700    |
| Total Metals                   |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 640                 | 420                | 440      | 380      | 440      | 250                | 200      | 91       | 22       | 150                | 57       | 13       | 1 U      |
| Calcium                        | ug/L     | 73400               | --                 | --       | --       | 66700    | --                 | --       | --       | 65000    | --                 | --       | --       | 65700    |
| Copper                         | ug/L     | 2.5 U               | 2.5 U              | 2.5 U    | 2.6      | 2.6      | 22                 | 8.8      | 2.5 U    | 5.2      | 2.5 U              | 2.5 U    | 11       | 2.5 U    |
| Iron                           | ug/L     | 15000               | --                 | --       | --       | 610      | --                 | --       | --       | 130000   | --                 | --       | --       | 95000    |
| Magnesium                      | ug/L     | 4270                | --                 | --       | --       | 5450     | --                 | --       | --       | 5250     | --                 | --       | --       | 5130     |
| Manganese                      | ug/L     | 140                 | --                 | --       | --       | 830      | --                 | --       | --       | 730      | --                 | --       | --       | 540      |
| Potassium                      | ug/L     | 3610                | --                 | --       | --       | 3870     | --                 | --       | --       | 3880     | --                 | --       | --       | 3930     |
| Sodium                         | ug/L     | 13000               | --                 | --       | --       | 14900    | --                 | --       | --       | 15100    | --                 | --       | --       | 15600    |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Pentachlorophenol              | ug/L     | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Conventionals                  |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Alkalinity, Total              | mg/L     | 257                 | --                 | --       | --       | 250      | --                 | --       | --       | 193      | --                 | --       | --       | 186      |
| Bromide                        | mg/L     | 0.600 U             | --                 | --       | --       | 0.600 U  | --                 | --       | --       | 0.600 U  | --                 | --       | --       | 0.600 U  |
| Chloride                       | mg/L     | 3.50                | --                 | --       | --       | 4.30     | --                 | --       | --       | 4.35     | --                 | --       | --       | 4.56     |
| Fluoride                       | mg/L     | 0.171               | --                 | --       | --       | 0.157    | --                 | --       | --       | 0.167    | --                 | --       | --       | 0.140    |
| Nitrate as Nitrogen            | mg/L     | 0.200 U             | --                 | --       | --       | 0.200 U  | --                 | --       | --       | 0.200 U  | --                 | --       | --       | 0.200 U  |
| Nitrite as Nitrogen            | mg/L     | 0.200 U             | --                 | --       | --       | 0.200 U  | --                 | --       | --       | 0.200 U  | --                 | --       | --       | 0.200 U  |
| Orthophosphate                 | mg/L     | 0.400 UJ            | --                 | --       | --       | 0.766 J  | --                 | --       | --       | 0.400 UJ | --                 | --       | --       | 0.400 UJ |
| Salinity                       | %        | 0.0100              | --                 | --       | --       | 0.0100   | --                 | --       | --       | 0.0100   | --                 | --       | --       | 0.0100   |
| Sulfate                        | mg/L     | 4.06                | --                 | --       | --       | 3.94     | --                 | --       | --       | 4.29     | --                 | --       | --       | 3.33     |
| Total Dissolved Solids         | mg/L     | 272                 | --                 | --       | --       | 238      | --                 | --       | --       | 228      | --                 | --       | --       | 316      |
| Total Organic Carbon           | mg/L     | 4.81                | --                 | --       | --       | 3.95     | --                 | --       | --       | 3.64     | --                 | --       | --       | 2.99     |
| Field Parameters               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Specific Conductance           | uS/cm    | --                  | --                 | 358.12   | 358.92   | 445.42   | --                 | 425.44   | 486.68   | 551.84   | --                 | 485.95   | 527.5    | 407.93   |
| Dissolved Oxygen               | mg/L     | --                  | --                 | 7        | 6.73     | 7.58     | --                 | 6.32     | 5.33     | 6.68     | --                 | 7.01     | 5.88     | 8.23     |
| pH                             | pH units | --                  | --                 | 6.67     | 6.64     | 6.53     | --                 | 6.81     | 6.93     | 6.68     | --                 | 6.94     | 7.07     | 6.8      |
| Oxidation Reduction Potential  | mV       | --                  | --                 | -27.2    | 2        | 217.3    | --                 | -75.4    | -116.5   | -43      | --                 | -94.3    | -128.4   | -79.6    |

Notes

ZVI = zero valent iron  
ug/L = micrograms per liter  
mV = millivolts  
mg/L = milligrams per liter  
uS/cm = microSiemens per centimeter

**Bold - detected**  
"--" - indicates results not available  
U - Analyte not detected at or above Reporting Limit shown  
J - Result value estimated  
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Table 3 - Analytical Results

DRAFT

|                                |          | Day 7               |                    |          |          |          |                    |          |          |          |                    |          |          |          |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|
|                                |          | Influent -<br>Day 7 | Control -<br>Day 7 |          |          |          | 25% ZVI -<br>Day 7 |          |          |          | 58% ZVI -<br>Day 7 |          |          |          |
|                                |          | 04/29/25            | 04/29/25           | 04/29/25 | 04/29/25 | 04/29/25 | 04/29/25           | 04/29/25 | 04/29/25 | 04/29/25 | 04/29/25           | 04/29/25 | 04/29/25 | 04/29/25 |
| Port                           |          | Influent            | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent |
| Dissolved Metals               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 820                 | 440                | 430      | 390      | 380      | 150                | 100      | 42       | 5.7      | 14                 | 21       | 2.9 J    | 1 UJ     |
| Calcium                        | ug/L     | 67700               | --                 | --       | --       | 62700    | --                 | --       | --       | 61100    | --                 | --       | --       | 61500    |
| Copper                         | ug/L     | 2.5 U               | 2.5 U              | 2.5 U    | 2.5 U    | 3.7      | 2.5 U              | 2.6      | 3        | 2.5 U    | 2.5 U              | 2.5 U    | 2.5 U    | 2.5 U    |
| Iron                           | ug/L     | 17000               | --                 | --       | --       | 350      | --                 | --       | --       | 100000   | --                 | --       | --       | 89000    |
| Magnesium                      | ug/L     | 4450                | --                 | --       | --       | 5570     | --                 | --       | --       | 5140     | --                 | --       | --       | 5030     |
| Manganese                      | ug/L     | 190                 | --                 | --       | --       | 770      | --                 | --       | --       | 730      | --                 | --       | --       | 640      |
| Potassium                      | ug/L     | 3700                | --                 | --       | --       | 4240     | --                 | --       | --       | 4080     | --                 | --       | --       | 4080     |
| Sodium                         | ug/L     | 13300               | --                 | --       | --       | 15200    | --                 | --       | --       | 15000    | --                 | --       | --       | 15500    |
| Total Metals                   |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 830                 | 460                | 460      | 380      | 350      | 230                | 130      | 50       | 29       | 77                 | 29       | 9.8      | 1.7      |
| Calcium                        | ug/L     | 66300               | --                 | --       | --       | 61900    | --                 | --       | --       | 61900    | --                 | --       | --       | 62400    |
| Copper                         | ug/L     | 2.5 U               | 6.4                | 3.9      | 6.3      | 2.9      | 29                 | 13       | 3.4      | 20       | 2.5 U              | 2.5 U    | 5.1      | 3.1      |
| Iron                           | ug/L     | 17000               | --                 | --       | --       | 410      | --                 | --       | --       | 140000   | --                 | --       | --       | 120000   |
| Magnesium                      | ug/L     | 4410                | --                 | --       | --       | 5550     | --                 | --       | --       | 5390     | --                 | --       | --       | 5130     |
| Manganese                      | ug/L     | 180                 | --                 | --       | --       | 710      | --                 | --       | --       | 800      | --                 | --       | --       | 680      |
| Potassium                      | ug/L     | 3570                | --                 | --       | --       | 4110     | --                 | --       | --       | 4060     | --                 | --       | --       | 4070     |
| Sodium                         | ug/L     | 13200               | --                 | --       | --       | 15300    | --                 | --       | --       | 15100    | --                 | --       | --       | 15800    |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Pentachlorophenol              | ug/L     | 740 J               | --                 | --       | --       | 740 J    | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Conventionals                  |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Alkalinity, Total              | mg/L     | 219                 | --                 | --       | --       | 254      | --                 | --       | --       | 210      | --                 | --       | --       | 225      |
| Bromide                        | mg/L     | 0.6 U               | --                 | --       | --       | 0.6 U    | --                 | --       | --       | 0.6 U    | --                 | --       | --       | 0.6 U    |
| Chloride                       | mg/L     | 3.91                | --                 | --       | --       | 4.42     | --                 | --       | --       | 4.56     | --                 | --       | --       | 4.64     |
| Fluoride                       | mg/L     | 0.17                | --                 | --       | --       | 0.163    | --                 | --       | --       | 0.166    | --                 | --       | --       | 0.147    |
| Nitrate as Nitrogen            | mg/L     | 0.2 U               | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    |
| Nitrite as Nitrogen            | mg/L     | 0.2 U               | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    |
| Orthophosphate                 | mg/L     | 0.4 UJ              | --                 | --       | --       | 0.512 J  | --                 | --       | --       | 0.4 UJ   | --                 | --       | --       | 0.4 UJ   |
| Salinity                       | %        | 0.01                | --                 | --       | --       | 0.01     | --                 | --       | --       | 0.01     | --                 | --       | --       | 0.01     |
| Sulfate                        | mg/L     | 4                   | --                 | --       | --       | 3.93     | --                 | --       | --       | 4.43     | --                 | --       | --       | 3.4      |
| Total Dissolved Solids         | mg/L     | 286                 | --                 | --       | --       | 290      | --                 | --       | --       | 254      | --                 | --       | --       | 256      |
| Total Organic Carbon           | mg/L     | 5.03                | --                 | --       | --       | 4.34     | --                 | --       | --       | 3.9      | --                 | --       | --       | 3.17     |
| Field Parameters               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Specific Conductance           | uS/cm    | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Dissolved Oxygen               | mg/L     | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| pH                             | pH units | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Oxidation Reduction Potential  | mV       | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |

Notes

ZVI = zero valent iron  
ug/L = micrograms per liter  
mV = millivolts  
mg/L = milligrams per liter  
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**Bold - detected**  
"--" - indicates results not available  
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Table 3 - Analytical Results

DRAFT

|                                |          | Day 8               |                    |          |          |          |                    |          |          |          |                    |          |          |          |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|
|                                |          | Influent -<br>Day 8 | Control -<br>Day 8 |          |          |          | 25% ZVI -<br>Day 8 |          |          |          | 58% ZVI -<br>Day 8 |          |          |          |
|                                |          | 04/30/25            | 04/30/25           | 04/30/25 | 04/30/25 | 04/30/25 | 04/30/25           | 04/30/25 | 04/30/25 | 04/30/25 | 04/30/25           | 04/30/25 | 04/30/25 | 04/30/25 |
| Port                           |          | Influent            | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent |
| Dissolved Metals               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 670                 | 340                | 360      | 360      | 290      | 130                | 57       | 9.1      | 3.2      | 24                 | 7.7      | 6        | 1 U      |
| Calcium                        | ug/L     | 68900               | --                 | --       | --       | 66900    | --                 | --       | --       | 62500    | --                 | --       | --       | 64000    |
| Copper                         | ug/L     | 2.5 U               | 2.5 U              | 2.5 U    | 2.5 U    | 2.5 U    | 2.5 U              | 3.7      | 2.5 U    | 2.5 U    | 2.5 U              | 2.5 U    | 2.5 U    | 2.5 U    |
| Iron                           | ug/L     | 15000               | --                 | --       | --       | 350      | --                 | --       | --       | 110000   | --                 | --       | --       | 88000    |
| Magnesium                      | ug/L     | 4270                | --                 | --       | --       | 5420     | --                 | --       | --       | 5030     | --                 | --       | --       | 4970     |
| Manganese                      | ug/L     | 180                 | --                 | --       | --       | 750      | --                 | --       | --       | 780      | --                 | --       | --       | 710      |
| Potassium                      | ug/L     | 3790                | --                 | --       | --       | 4210     | --                 | --       | --       | 3890     | --                 | --       | --       | 4020     |
| Sodium                         | ug/L     | 12800               | --                 | --       | --       | 14600    | --                 | --       | --       | 14600    | --                 | --       | --       | 15100    |
| Total Metals                   |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 690                 | 390                | 380      | 340      | 280      | 140                | 63       | 50       | 26       | 64                 | 24       | 7.1      | 1.8      |
| Calcium                        | ug/L     | 65100               | --                 | --       | --       | 62300    | --                 | --       | --       | 59300    | --                 | --       | --       | 59500    |
| Copper                         | ug/L     | 2.5                 | 4.6                | 4.5      | 17       | 2.9      | 15                 | 12       | 22       | 15       | 4.1                | 25       | 2.5 U    | 2.5 U    |
| Iron                           | ug/L     | 16000               | --                 | --       | --       | 390      | --                 | --       | --       | 150000   | --                 | --       | --       | 130000   |
| Magnesium                      | ug/L     | 4500                | --                 | --       | --       | 5550     | --                 | --       | --       | 5230     | --                 | --       | --       | 4970     |
| Manganese                      | ug/L     | 180                 | --                 | --       | --       | 730      | --                 | --       | --       | 970      | --                 | --       | --       | 670      |
| Potassium                      | ug/L     | 3720                | --                 | --       | --       | 3970     | --                 | --       | --       | 3690     | --                 | --       | --       | 3750     |
| Sodium                         | ug/L     | 13500               | --                 | --       | --       | 14900    | --                 | --       | --       | 14800    | --                 | --       | --       | 15200    |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Pentachlorophenol              | ug/L     | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | 330 J    |
| Conventionals                  |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Alkalinity, Total              | mg/L     | 187                 | --                 | --       | --       | 257      | --                 | --       | --       | 238      | --                 | --       | --       | 239      |
| Bromide                        | mg/L     | 0.6 U               | --                 | --       | --       | 0.6 U    | --                 | --       | --       | 0.6 U    | --                 | --       | --       | 0.6 U    |
| Chloride                       | mg/L     | 3.79                | --                 | --       | --       | 4.5      | --                 | --       | --       | 4.6      | --                 | --       | --       | 4.66     |
| Fluoride                       | mg/L     | 0.176               | --                 | --       | --       | 0.161    | --                 | --       | --       | 0.153    | --                 | --       | --       | 0.143    |
| Nitrate as Nitrogen            | mg/L     | 0.2 U               | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    |
| Nitrite as Nitrogen            | mg/L     | 0.2 U               | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    |
| Orthophosphate                 | mg/L     | 0.4 UJ              | --                 | --       | --       | 0.443 J  | --                 | --       | --       | 0.4 U    | --                 | --       | --       | 0.4 UJ   |
| Salinity                       | %        | 0.01                | --                 | --       | --       | 0.01     | --                 | --       | --       | 0.01     | --                 | --       | --       | 0.01     |
| Sulfate                        | mg/L     | 4.36                | --                 | --       | --       | 4.22     | --                 | --       | --       | 4.56     | --                 | --       | --       | 3.55     |
| Total Dissolved Solids         | mg/L     | 278                 | --                 | --       | --       | 286      | --                 | --       | --       | 242      | --                 | --       | --       | 244      |
| Total Organic Carbon           | mg/L     | 4.34                | --                 | --       | --       | 3.86     | --                 | --       | --       | 3.63     | --                 | --       | --       | 3.2      |
| Field Parameters               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Specific Conductance           | uS/cm    | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Dissolved Oxygen               | mg/L     | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| pH                             | pH units | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Oxidation Reduction Potential  | mV       | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |

Notes

ZVI = zero valent iron  
ug/L = micrograms per liter  
mV = millivolts  
mg/L = milligrams per liter  
uS/cm = microSiemens per centimeter

**Bold - detected**  
"--" - indicates results not available  
U - Analyte not detected at or above Reporting Limit shown  
J - Result value estimated  
UJ - Analyte not detected and the Reporting Limit is an estimate



Table 3 - Analytical Results

DRAFT

|                                |          | Day 9               |                    |          |          |          |                    |          |          |          |                    |          |          |          |
|--------------------------------|----------|---------------------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|
|                                |          | Influent -<br>Day 9 | Control -<br>Day 9 |          |          |          | 25% ZVI -<br>Day 9 |          |          |          | 58% ZVI -<br>Day 9 |          |          |          |
|                                |          | 05/01/25            | 05/01/25           | 05/01/25 | 05/01/25 | 05/01/25 | 05/01/25           | 05/01/25 | 05/01/25 | 05/01/25 | 05/01/25           | 05/01/25 | 05/01/25 | 05/01/25 |
| Date                           |          | Influent            | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent | Port 1             | Port 2   | Port 3   | Effluent |
| Port                           |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Dissolved Metals               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 660                 | 340                | 370      | 390      | 350      | 92                 | 44       | 5.1      | 3.9      | 40                 | 13       | 1.2      | 3.1      |
| Calcium                        | ug/L     | 73100               | --                 | --       | --       | 65000    | --                 | --       | --       | 61200    | --                 | --       | --       | 63200    |
| Copper                         | ug/L     | 4.8                 | 2.5 U              | 2.5 U    | 2.5 U    | 2.6      | 2.5 U              | 2.5 U    | 2.5 U    | 2.5 U    | 2.5 U              | 2.5 U    | 4.3      | 2.5 U    |
| Iron                           | ug/L     | 14000               | --                 | --       | --       | 710      | --                 | --       | --       | 84000    | --                 | --       | --       | 82000    |
| Magnesium                      | ug/L     | 4360                | --                 | --       | --       | 5390     | --                 | --       | --       | 4990     | --                 | --       | --       | 5010     |
| Manganese                      | ug/L     | 160                 | --                 | --       | --       | 650      | --                 | --       | --       | 680      | --                 | --       | --       | 630      |
| Potassium                      | ug/L     | 3800                | --                 | --       | --       | 4300     | --                 | --       | --       | 3990     | --                 | --       | --       | 4100     |
| Sodium                         | ug/L     | 12600               | --                 | --       | --       | 14500    | --                 | --       | --       | 14800    | --                 | --       | --       | 15500    |
| Total Metals                   |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Arsenic                        | ug/L     | 690                 | 380                | 410      | 390      | 340      | 95                 | 47       | 26       | 15       | 35                 | 15       | 1.8      | 5.6      |
| Calcium                        | ug/L     | 68900               | --                 | --       | --       | 59700    | --                 | --       | --       | 57000    | --                 | --       | --       | 58400    |
| Copper                         | ug/L     | 2.5 U               | 2.5 U              | 2.5 U    | 4.1      | 2.9      | 11                 | 10       | 13       | 12       | 2.5 U              | 2.5 U    | 5.5      | 3.1      |
| Iron                           | ug/L     | 15000               | --                 | --       | --       | 1200     | --                 | --       | --       | 150000   | --                 | --       | --       | 110000   |
| Magnesium                      | ug/L     | 4500                | --                 | --       | --       | 5450     | --                 | --       | --       | 5170     | --                 | --       | --       | 5030     |
| Manganese                      | ug/L     | 170                 | --                 | --       | --       | 690      | --                 | --       | --       | 1000     | --                 | --       | --       | 810      |
| Potassium                      | ug/L     | 3630                | --                 | --       | --       | 4030     | --                 | --       | --       | 3750     | --                 | --       | --       | 3820     |
| Sodium                         | ug/L     | 13100               | --                 | --       | --       | 14700    | --                 | --       | --       | 14800    | --                 | --       | --       | 15400    |
| Semivolatile Organic Compounds |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Pentachlorophenol              | ug/L     | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Conventionals                  |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Alkalinity, Total              | mg/L     | 179                 | --                 | --       | --       | 227      | --                 | --       | --       | 221      | --                 | --       | --       | 223      |
| Bromide                        | mg/L     | 0.6 U               | --                 | --       | --       | 0.6 U    | --                 | --       | --       | 0.6 U    | --                 | --       | --       | 0.6 U    |
| Chloride                       | mg/L     | 3.63                | --                 | --       | --       | 4.31     | --                 | --       | --       | 4.38     | --                 | --       | --       | 4.54     |
| Fluoride                       | mg/L     | 0.173               | --                 | --       | --       | 0.167    | --                 | --       | --       | 0.155    | --                 | --       | --       | 0.145    |
| Nitrate as Nitrogen            | mg/L     | 0.2 U               | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    |
| Nitrite as Nitrogen            | mg/L     | 0.2 U               | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    | --                 | --       | --       | 0.2 U    |
| Orthophosphate                 | mg/L     | 0.4 UJ              | --                 | --       | --       | 0.44 J   | --                 | --       | --       | 0.4 UJ   | --                 | --       | --       | 0.4 UJ   |
| Salinity                       | %        | 0.01                | --                 | --       | --       | 0.01     | --                 | --       | --       | 0.01     | --                 | --       | --       | 0.01     |
| Sulfate                        | mg/L     | 3.83                | --                 | --       | --       | 4.48     | --                 | --       | --       | 4.98     | --                 | --       | --       | 3.83     |
| Total Dissolved Solids         | mg/L     | 278                 | --                 | --       | --       | 268      | --                 | --       | --       | 234      | --                 | --       | --       | 234      |
| Total Organic Carbon           | mg/L     | 4.94                | --                 | --       | --       | 3.57     | --                 | --       | --       | 3.53     | --                 | --       | --       | 2.94 J   |
| Field Parameters               |          |                     |                    |          |          |          |                    |          |          |          |                    |          |          |          |
| Specific Conductance           | uS/cm    | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Dissolved Oxygen               | mg/L     | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| pH                             | pH units | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |
| Oxidation Reduction Potential  | mV       | --                  | --                 | --       | --       | --       | --                 | --       | --       | --       | --                 | --       | --       | --       |

Notes

ZVI = zero valent iron  
ug/L = micrograms per liter  
mV = millivolts  
mg/L = milligrams per liter  
uS/cm = microSiemens per centimeter

**Bold - detected**  
"--" - indicates results not available  
U - Analyte not detected at or above Reporting Limit shown  
J - Result value estimated  
UJ - Analyte not detected and the Reporting Limit is an estimate



Table 3 - Analytical Results

DRAFT

|                                |          | Day 10               |                     |          |          |          |                     |          |          |          |                     |          |          |          |
|--------------------------------|----------|----------------------|---------------------|----------|----------|----------|---------------------|----------|----------|----------|---------------------|----------|----------|----------|
|                                |          | Influent -<br>Day 10 | Control -<br>Day 10 |          |          |          | 25% ZVI -<br>Day 10 |          |          |          | 58% ZVI -<br>Day 10 |          |          |          |
|                                |          |                      |                     |          |          |          |                     |          |          |          |                     |          |          |          |
| Date                           |          | 05/02/25             | 05/02/25            | 05/02/25 | 05/02/25 | 05/02/25 | 05/02/25            | 05/02/25 | 05/02/25 | 05/02/25 | 05/02/25            | 05/02/25 | 05/02/25 | 05/02/25 |
| Port                           |          | Influent             | Port 1              | Port 2   | Port 3   | Effluent | Port 1              | Port 2   | Port 3   | Effluent | Port 1              | Port 2   | Port 3   | Effluent |
| Dissolved Metals               |          |                      |                     |          |          |          |                     |          |          |          |                     |          |          |          |
| Arsenic                        | ug/L     | 680                  | 240                 | 310      | 390      | 360      | 57                  | 21       | 3.8      | 4.2      | 15                  | 7.2      | 1.9      | 1.2      |
| Calcium                        | ug/L     | 72700                | --                  | --       | --       | 65200    | --                  | --       | --       | 61400    | --                  | --       | --       | 62900    |
| Copper                         | ug/L     | 2.5 U                | 2.5 U               | 2.5 U    | 2.5 U    | 3        | 2.5 U               | 2.5 U    | 2.5 U    | 2.5 U    | 2.5 U               | 2.5 U    | 2.5 U    | 2.5 U    |
| Iron                           | ug/L     | 15000                | --                  | --       | --       | 1300     | --                  | --       | --       | 98000    | --                  | --       | --       | 96000    |
| Magnesium                      | ug/L     | 4470                 | --                  | --       | --       | 5560     | --                  | --       | --       | 4970     | --                  | --       | --       | 4920     |
| Manganese                      | ug/L     | 170                  | --                  | --       | --       | 610      | --                  | --       | --       | 880      | --                  | --       | --       | 620      |
| Potassium                      | ug/L     | 3920                 | --                  | --       | --       | 4700     | --                  | --       | --       | 4090     | --                  | --       | --       | 4090     |
| Sodium                         | ug/L     | 12900                | --                  | --       | --       | 14300    | --                  | --       | --       | 14600    | --                  | --       | --       | 15000    |
| Total Metals                   |          |                      |                     |          |          |          |                     |          |          |          |                     |          |          |          |
| Arsenic                        | ug/L     | 730                  | 330                 | 360      | 390      | 350      | 61                  | 21       | 15       | 32       | 15                  | 11       | 3.1      | 1.6      |
| Calcium                        | ug/L     | 69000                | --                  | --       | --       | 62700    | --                  | --       | --       | 57000    | --                  | --       | --       | 61300    |
| Copper                         | ug/L     | 2.5 U                | 2.5 U               | 2.8      | 2.5 U    | 3.1      | 8.5                 | 3.9      | 7.9      | 38       | 2.5 U               | 2.5 U    | 4.7      | 2.5 U    |
| Iron                           | ug/L     | 15000                | --                  | --       | --       | 1700     | --                  | --       | --       | 200000   | --                  | --       | --       | 110000   |
| Magnesium                      | ug/L     | 4510                 | --                  | --       | --       | 5790     | --                  | --       | --       | 5140     | --                  | --       | --       | 5140     |
| Manganese                      | ug/L     | 180                  | --                  | --       | --       | 650      | --                  | --       | --       | 1200     | --                  | --       | --       | 650      |
| Potassium                      | ug/L     | 3640                 | --                  | --       | --       | 4440     | --                  | --       | --       | 3750     | --                  | --       | --       | 4000     |
| Sodium                         | ug/L     | 12900                | --                  | --       | --       | 14600    | --                  | --       | --       | 14200    | --                  | --       | --       | 15600    |
| Semivolatile Organic Compounds |          |                      |                     |          |          |          |                     |          |          |          |                     |          |          |          |
| Pentachlorophenol              | ug/L     | 660 J                | --                  | --       | --       | 760 J    | --                  | --       | --       | --       | --                  | --       | --       | 290 J    |
| Conventionals                  |          |                      |                     |          |          |          |                     |          |          |          |                     |          |          |          |
| Alkalinity, Total              | mg/L     | 129                  | --                  | --       | --       | 174      | --                  | --       | --       | 101      | --                  | --       | --       | 153      |
| Bromide                        | mg/L     | 0.6 U                | --                  | --       | --       | 0.6 U    | --                  | --       | --       | 0.6 U    | --                  | --       | --       | 0.6 U    |
| Chloride                       | mg/L     | 3.83                 | --                  | --       | --       | 4.42     | --                  | --       | --       | 4.53     | --                  | --       | --       | 4.68     |
| Fluoride                       | mg/L     | 0.177                | --                  | --       | --       | 0.1 U    | --                  | --       | --       | 0.154    | --                  | --       | --       | 0.145    |
| Nitrate as Nitrogen            | mg/L     | 0.588 J              | --                  | --       | --       | 0.2 UJ   | --                  | --       | --       | 0.2 UJ   | --                  | --       | --       | 0.2 UJ   |
| Nitrite as Nitrogen            | mg/L     | 0.2 UJ               | --                  | --       | --       | 0.2 UJ   | --                  | --       | --       | 0.2 UJ   | --                  | --       | --       | 0.2 UJ   |
| Orthophosphate                 | mg/L     | 0.4 U                | --                  | --       | --       | 0.625    | --                  | --       | --       | 0.4 U    | --                  | --       | --       | 0.4 U    |
| Salinity                       | %        | 0.01                 | --                  | --       | --       | 0.01     | --                  | --       | --       | 0.0001 U | --                  | --       | --       | 0.01     |
| Sulfate                        | mg/L     | 4.09                 | --                  | --       | --       | 4.6      | --                  | --       | --       | 5.05     | --                  | --       | --       | 4.04     |
| Total Dissolved Solids         | mg/L     | 296                  | --                  | --       | --       | 450      | --                  | --       | --       | 246      | --                  | --       | --       | 242      |
| Total Organic Carbon           | mg/L     | 4.88                 | --                  | --       | --       | 7.16     | --                  | --       | --       | 4.83     | --                  | --       | --       | 3.44     |
| Field Parameters               |          |                      |                     |          |          |          |                     |          |          |          |                     |          |          |          |
| Specific Conductance           | uS/cm    | --                   | --                  | --       | --       | --       | --                  | --       | --       | --       | --                  | --       | --       | --       |
| Dissolved Oxygen               | mg/L     | --                   | --                  | --       | --       | --       | --                  | --       | --       | --       | --                  | --       | --       | --       |
| pH                             | pH units | --                   | --                  | --       | --       | --       | --                  | --       | --       | --       | --                  | --       | --       | --       |
| Oxidation Reduction Potential  | mV       | --                   | --                  | --       | --       | --       | --                  | --       | --       | --       | --                  | --       | --       | --       |

Notes

ZVI = zero valent iron  
ug/L = micrograms per liter  
mV = millivolts  
mg/L = milligrams per liter  
uS/cm = microSiemens per centimeter

**Bold - detected**  
"--" - indicates results not available  
U - Analyte not detected at or above Reporting Limit shown  
J - Result value estimated  
UJ - Analyte not detected and the Reporting Limit is an estimate

**Table 6 - ZVI Treatment Capacity Calculation**

| Parameter \ Column                                | 25% ZVI     | 58% ZVI     | Units                                  |
|---------------------------------------------------|-------------|-------------|----------------------------------------|
| ZVI Bulk Density <sup>1</sup>                     | 150         | 150         | pounds per cubic foot                  |
| Column Diameter                                   | 3           | 3           | inches                                 |
| Column Length to Port 1                           | 0.5         | 0.5         | feet                                   |
| Column Volume to Port 1                           | 0.025       | 0.025       | cubic feet                             |
| Column Volume to Port 1                           | 695         | 695         | milliliters                            |
| ZVI %                                             | 25%         | 58%         | by mass                                |
| ZVI mass                                          | 0.92        | 2.1         | pounds                                 |
| ZVI mass                                          | 418         | 969         | grams                                  |
| Pumping Rate                                      | 14.5        | 14.5        | milliliters per minute                 |
| Pumping Duration                                  | 10          | 10          | days                                   |
| Pumping Duration                                  | 14400       | 14400       | minutes                                |
| Volume pumped                                     | 209         | 209         | liters                                 |
| Conc. Decrease of Arsenic <sup>2</sup>            | 577         | 644         | micrograms per liter                   |
| Conc. Decrease of Arsenic - Control-adjusted      | 214         | 280         | micrograms per liter                   |
| Mass of Arsenic Removed                           | 120         | 134         | milligrams                             |
| Mass of Arsenic Removed - Control-adjusted        | 45          | 58          | milligrams                             |
| <b>Min. Removal Efficiency</b>                    | <b>0.29</b> | <b>0.14</b> | <b>milligrams Arsenic per gram ZVI</b> |
| <b>Min. Removal Efficiency (Control-adjusted)</b> | <b>0.11</b> | <b>0.06</b> | <b>milligrams Arsenic per gram ZVI</b> |

**Notes:**

1. Based on manufacturer specifications for the Connelly CC-1004 ZVI that was used in testing.
  2. Decreases in arsenic were calculated by subtracting the average Port 1 concentration from the average influent concentration over Days 8 through 10.
- ZVI = zero-valent iron

## Table 7 - pH Data Summary

Project No. 25006-03  
Glacier Northwest Inc. Site

| Control Column                                           |             |             |             |             |             |                     |
|----------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|---------------------|
|                                                          | Influent    | Port 1      | Port 2      | Port 3      | Effluent    | Effluent - Influent |
| 4/23/2025                                                | 6.54        | 6.45        | 6.45        | 6.45        | 6.4         | -0.14               |
| 4/24/2025                                                | 6.26        | 6.45        | 6.4         | 6.43        | 6.24        | -0.02               |
| 4/25/2025                                                | 6.64        | 6.55        | 6.15        | 6.61        | 6.5         | -0.14               |
| 4/26/2025                                                | 6.75        | 6.51        | 6.6         | 6.8         | 6.45        | -0.3                |
| 4/27/2025                                                | 6.41        | 6.38        | 6.51        | 6.63        | 6.45        | 0.04                |
| 4/28/2025                                                | --          | --          | 6.67        | 6.64        | 6.53        | --                  |
| <b>Average</b>                                           | <b>6.52</b> | <b>6.47</b> | <b>6.46</b> | <b>6.59</b> | <b>6.43</b> | <b>-0.11</b>        |
| Minimum of All Influent, Port, and Effluent Measurements |             |             |             |             |             | <b>6.15</b>         |
| Maximum of All Influent, Port, and Effluent Measurements |             |             |             |             |             | <b>6.8</b>          |

| 25% ZVI Column                                           |             |             |             |             |             |                     |
|----------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|---------------------|
|                                                          | Influent    | Port 1      | Port 2      | Port 3      | Effluent    | Effluent - Influent |
| 4/23/2025                                                | 6.54        | 7.33        | 7.56        | 7.46        | 7.61        | 1.07                |
| 4/24/2025                                                | 6.26        | 6.9         | 6.94        | 6.95        | 7.13        | 0.87                |
| 4/25/2025                                                | 6.64        | 6.86        | 6.83        | 6.78        | 6.78        | 0.14                |
| 4/26/2025                                                | 6.75        | 6.76        | 6.77        | 7.01        | 6.83        | 0.08                |
| 4/27/2025                                                | 6.41        | 6.54        | 6.75        | 6.62        | 6.71        | 0.3                 |
| 4/28/2025                                                | --          | --          | 6.81        | 6.93        | 6.68        | --                  |
| <b>Average</b>                                           | <b>6.52</b> | <b>6.88</b> | <b>6.94</b> | <b>6.96</b> | <b>6.96</b> | <b>0.49</b>         |
| Minimum of All Influent, Port, and Effluent Measurements |             |             |             |             |             | <b>6.26</b>         |
| Maximum of All Influent, Port, and Effluent Measurements |             |             |             |             |             | <b>7.13</b>         |

| 58% ZVI Column                                           |             |             |             |             |             |                     |
|----------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|---------------------|
|                                                          | Influent    | Port 1      | Port 2      | Port 3      | Effluent    | Effluent - Influent |
| 4/24/2025                                                | 6.26        | 7.03        | 7.25        | 7.2         | 6.98        | 0.72                |
| 4/25/2025                                                | 6.64        | 6.93        | 7.02        | 7.07        | 7.18        | 0.54                |
| 4/26/2025                                                | 6.75        | 6.95        | 6.87        | 7.06        | 6.9         | 0.15                |
| 4/27/2025                                                | 6.41        | 6.78        | 6.94        | 6.83        | 6.7         | 0.29                |
| 4/28/2025                                                | --          | --          | 6.94        | 7.07        | 6.8         | --                  |
| <b>Average</b>                                           | <b>6.52</b> | <b>6.92</b> | <b>7.00</b> | <b>7.05</b> | <b>6.91</b> | <b>0.43</b>         |
| Minimum of All Influent, Port, and Effluent Measurements |             |             |             |             |             | <b>6.26</b>         |
| Maximum of All Influent, Port, and Effluent Measurements |             |             |             |             |             | <b>7.25</b>         |

### Notes:

-- = no data available

All values are in pH standard units

# FIGURES



**BLACK  
RIVER**  
environmental

Figure 1a - Total Arsenic Column Profiles - By Date

| Date     | TOTAL ARSENIC IN MICROGRAMS PER LITER |        |        |        |          |          |        |        |        |          |          |        |        |        |          |
|----------|---------------------------------------|--------|--------|--------|----------|----------|--------|--------|--------|----------|----------|--------|--------|--------|----------|
|          | 25% ZVI                               |        |        |        |          | 58% ZVI  |        |        |        |          | Control  |        |        |        |          |
|          | Influent                              | Port 1 | Port 2 | Port 3 | Effluent | Influent | Port 1 | Port 2 | Port 3 | Effluent | Influent | Port 1 | Port 2 | Port 3 | Effluent |
| 04/23/25 | 840                                   | 47     | 7.1    | 6.6    | 1.3      | 840      | --     | --     | --     | --       | 840      | 720    | 660    | 650    | 690      |
| 04/24/25 | 720                                   | 47     | 16     | 5.8    | 1.7      | 720      | 17     | 0.5    | 3.1    | 1        | 720      | 360    | 320    | 380    | 480      |
| 04/25/25 | 730                                   | 190    | 110    | 20     | 1        | 730      | 23     | 3.8    | 3.6    | 1        | 730      | 330    | 320    | 350    | 380      |
| 04/26/25 | 690                                   | 310    | 180    | 28     | 1.8      | 690      | 88     | 77     | 1      | 1        | 690      | 370    | 330    | 320    | 340      |
| 04/27/25 | 740                                   | 320    | 250    | 73     | 9.2      | 740      | 220    | 90     | 9.3    | 1        | 740      | 460    | 470    | 370    | 460      |
| 04/28/25 | 640                                   | 250    | 200    | 91     | 22       | 640      | 150    | 57     | 13     | 1        | 640      | 420    | 440    | 380    | 440      |
| 04/29/25 | 830                                   | 230    | 130    | 50     | 29       | 830      | 77     | 29     | 9.8    | 1.7      | 830      | 460    | 460    | 380    | 350      |
| 04/30/25 | 690                                   | 140    | 63     | 50     | 26       | 690      | 64     | 24     | 7.1    | 1.8      | 690      | 390    | 380    | 340    | 280      |
| 05/01/25 | 690                                   | 47     | 26     | 5.6    | 95       | 690      | 15     | 1.8    | 340    | 35       | 690      | 410    | 390    | 390    | 380      |
| 05/02/25 | 730                                   | 21     | 15     | 1.6    | 61       | 730      | 11     | 3.1    | 350    | 15       | 730      | 360    | 390    | 650    | 330      |

Legend and Notes

- 1) Nondetect values are displayed at their reporting limits.  
2) Red text indicates nondetect result  
3) -- indicates no data is available for this date

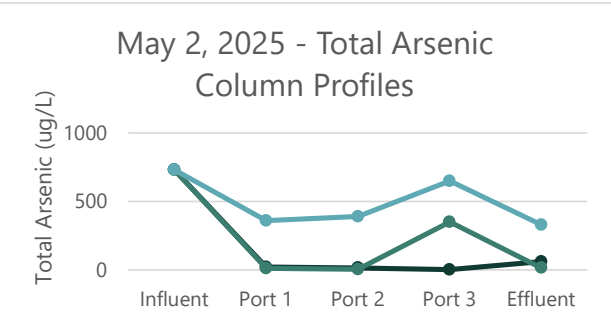
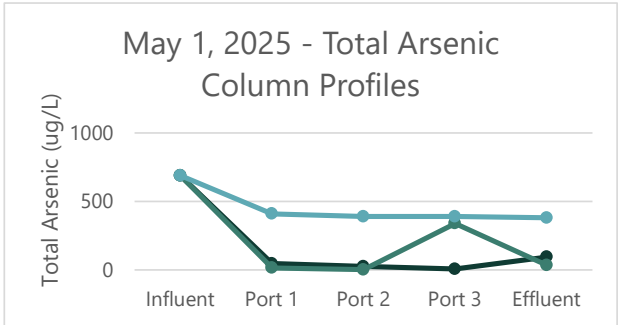
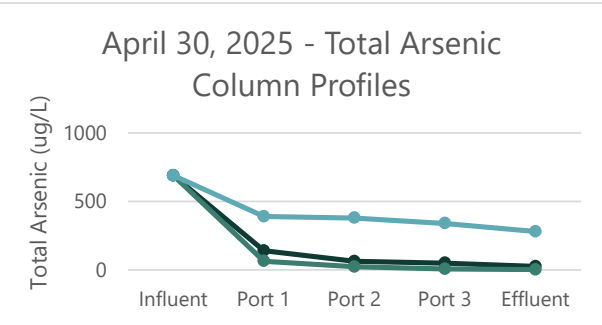
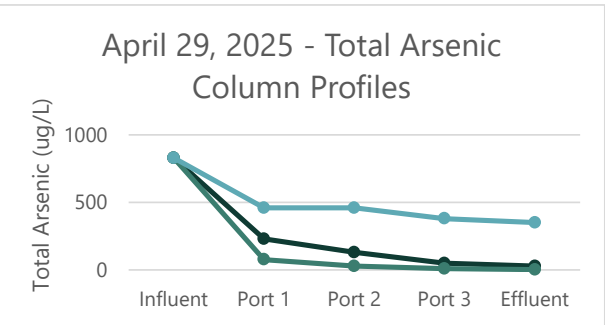
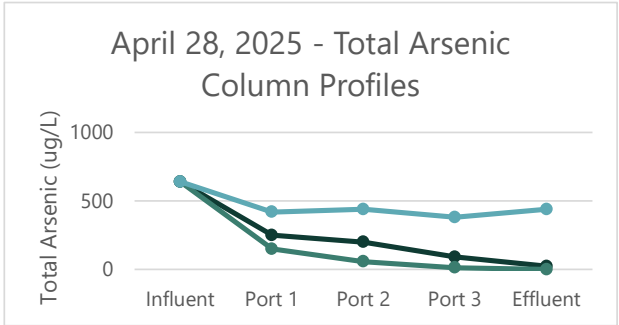
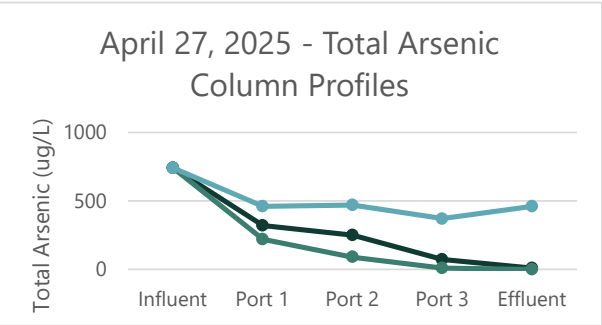
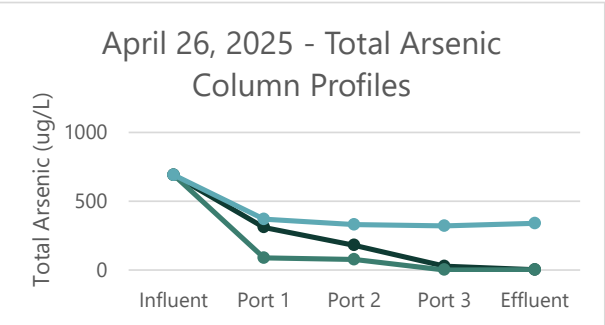
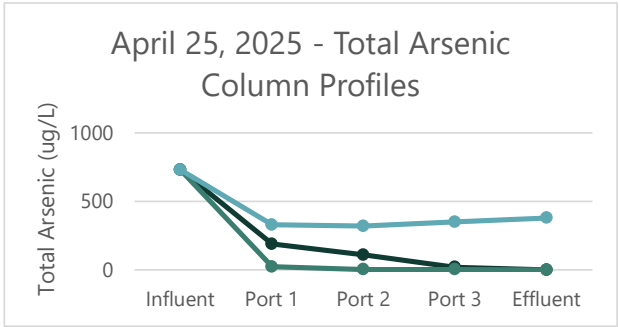
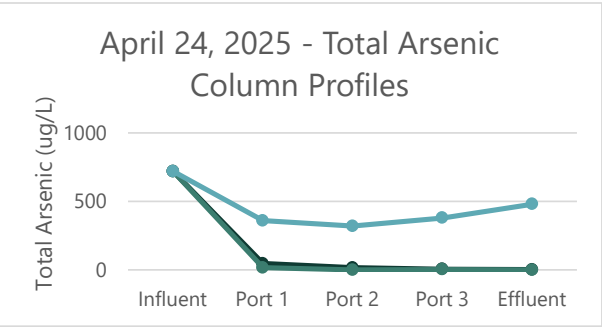
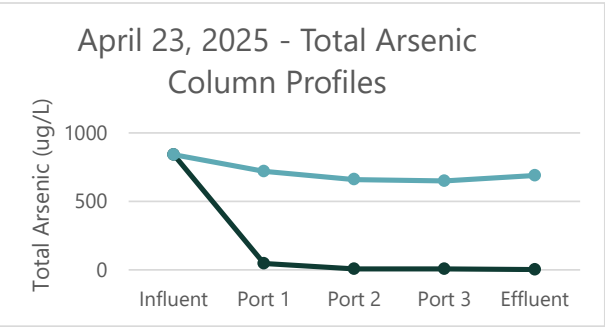


Figure 1b - Dissolved Arsenic Column Profiles - By Date

| Date     | DISSOLVED ARSENIC IN MICROGRAMS PER LITER |        |        |        |          |          |        |        |        |          |          |        |        |        |          |
|----------|-------------------------------------------|--------|--------|--------|----------|----------|--------|--------|--------|----------|----------|--------|--------|--------|----------|
|          | 25% ZVI                                   |        |        |        |          | 58% ZVI  |        |        |        |          | Control  |        |        |        |          |
|          | Influent                                  | Port 1 | Port 2 | Port 3 | Effluent | Influent | Port 1 | Port 2 | Port 3 | Effluent | Influent | Port 1 | Port 2 | Port 3 | Effluent |
| 04/23/25 | 870                                       | 38     | 2.6    | 1.1    | 1        | 870      | --     | --     | --     | --       | 870      | 770    | 650    | 620    | 660      |
| 04/24/25 | 690                                       | 42     | 7.8    | 0.5    | 1        | 690      | 10     | 1      | 1      | 1        | 690      | 360    | 320    | 380    | 460      |
| 04/25/25 | 740                                       | 160    | 25     | 2.2    | 1        | 740      | 9.7    | 2.3    | 1      | 1        | 740      | 300    | 310    | 330    | 380      |
| 04/26/25 | 700                                       | 210    | 42     | 9.6    | 1.1      | 700      | 61     | 19     | 1      | 1        | 700      | 340    | 350    | 310    | 340      |
| 04/27/25 | 800                                       | 220    | 79     | 61     | 8.1      | 800      | 76     | 5.4    | 1.3    | 1        | 800      | 490    | 460    | 420    | 470      |
| 04/28/25 | 670                                       | 170    | 170    | 14     | 4.8      | 670      | 190    | 40     | 1.9    | 1        | 670      | 400    | 410    | 390    | 400      |
| 04/29/25 | 820                                       | 150    | 100    | 42     | 5.7      | 820      | 14     | 21     | 2.9    | 1        | 820      | 440    | 430    | 390    | 380      |
| 04/30/25 | 670                                       | 130    | 57     | 9.1    | 3.2      | 670      | 24     | 7.7    | 6      | 1        | 670      | 340    | 360    | 360    | 290      |
| 05/01/25 | 660                                       | 92     | 44     | 5.1    | 3.9      | 660      | 40     | 13     | 1.2    | 3.1      | 660      | 340    | 370    | 390    | 350      |
| 05/02/25 | 680                                       | 57     | 21     | 3.8    | 4.2      | 680      | 15     | 7.2    | 1.9    | 1.2      | 680      | 240    | 310    | 390    | 360      |

Legend and Notes

1) Nondetect values are displayed at their reporting limits.

2) Red text indicates nondetect result

3) -- indicates no data is available for this date

20% ZVI

50% ZVI

Control

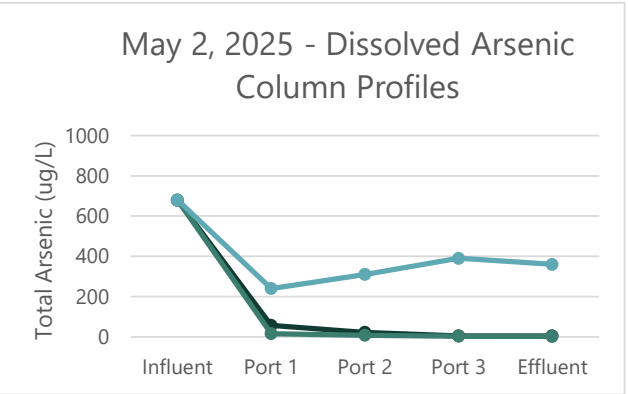
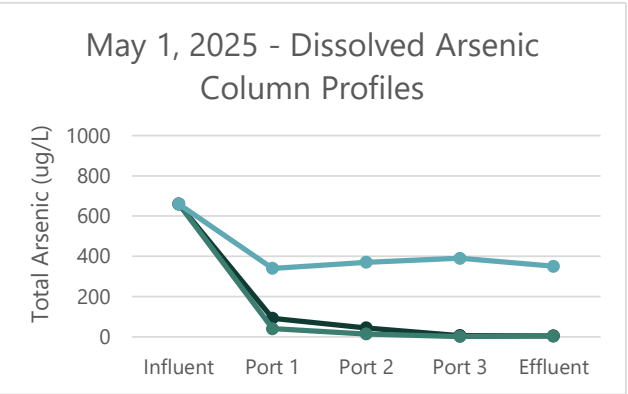
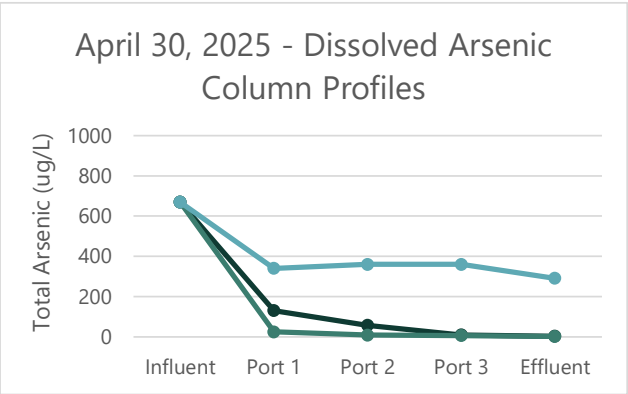
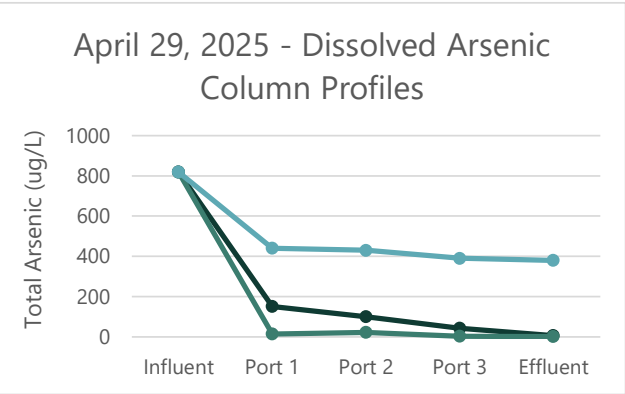
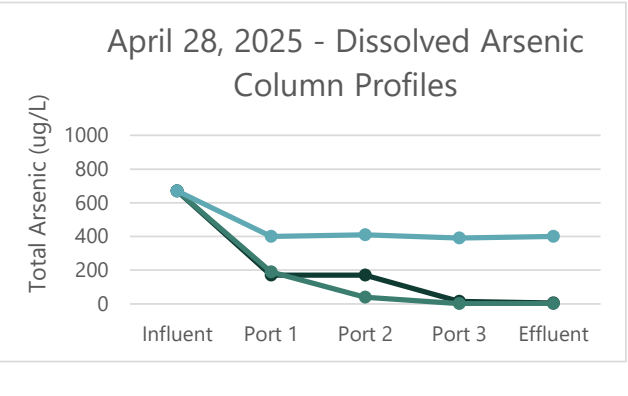
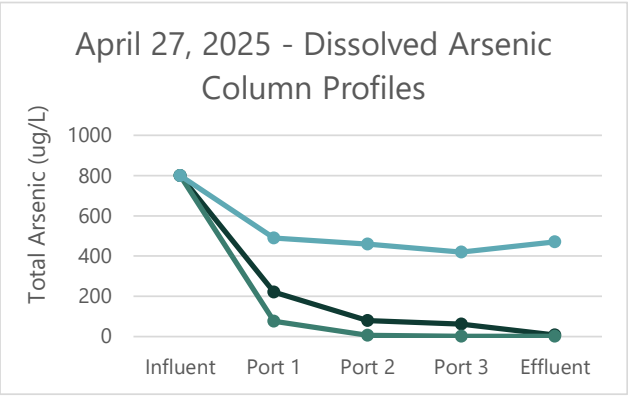
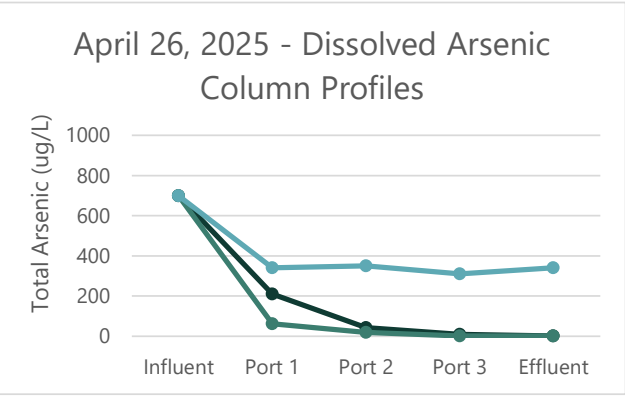
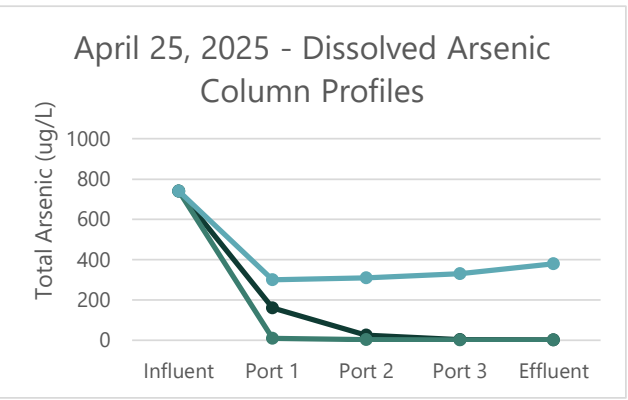
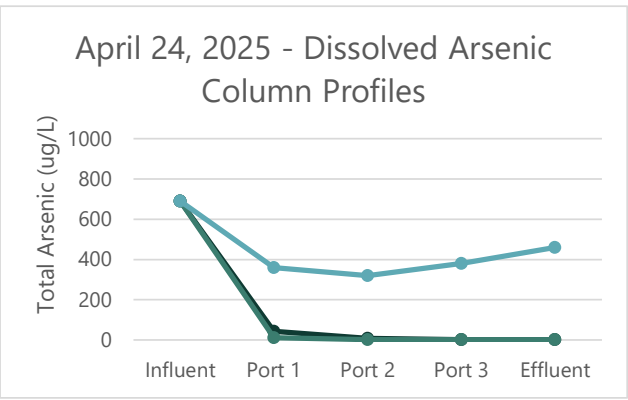
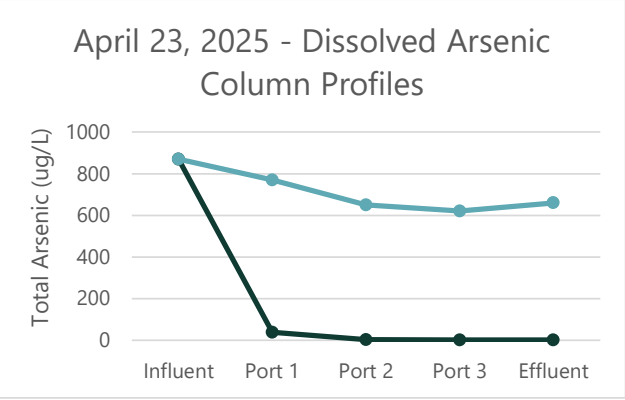
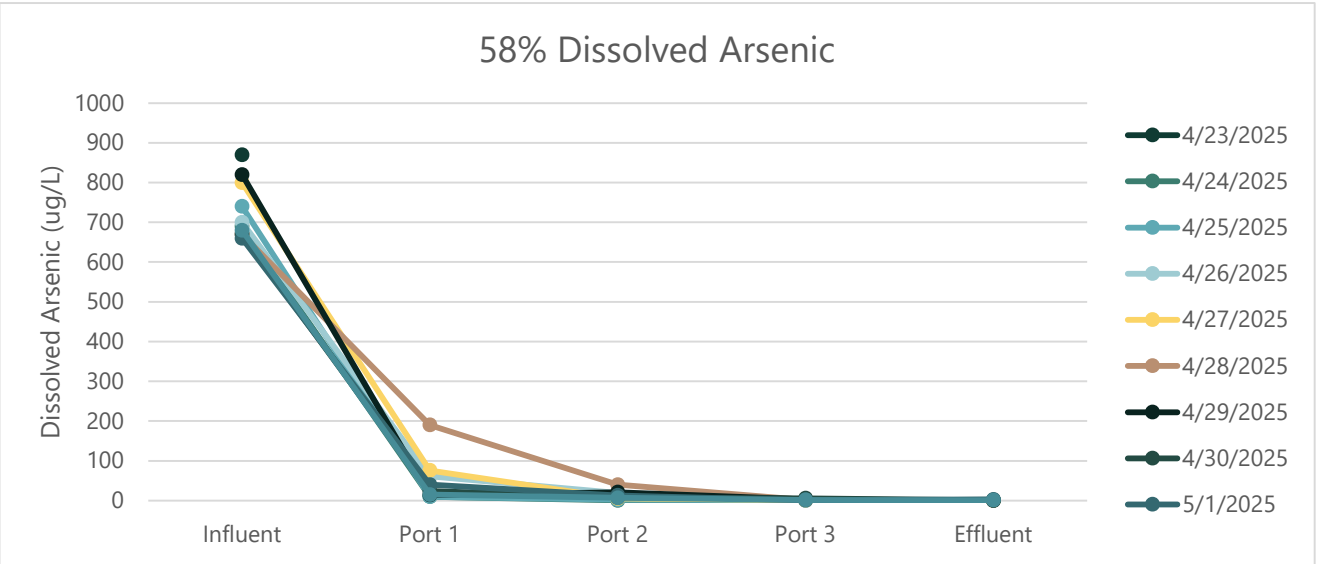
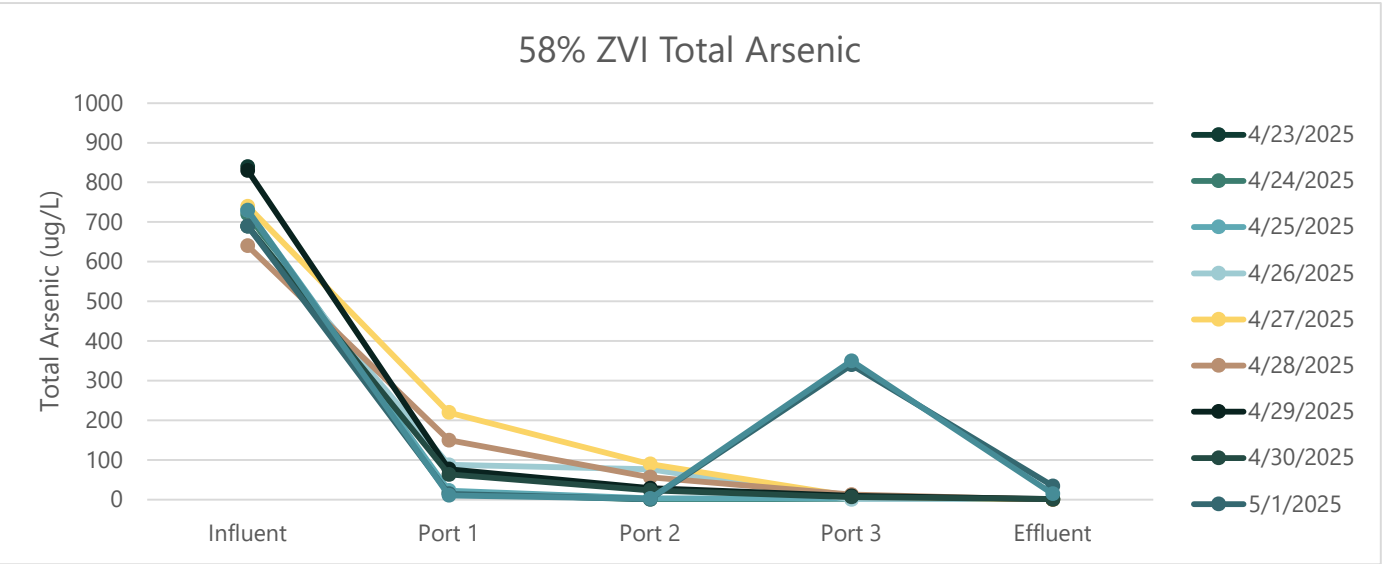
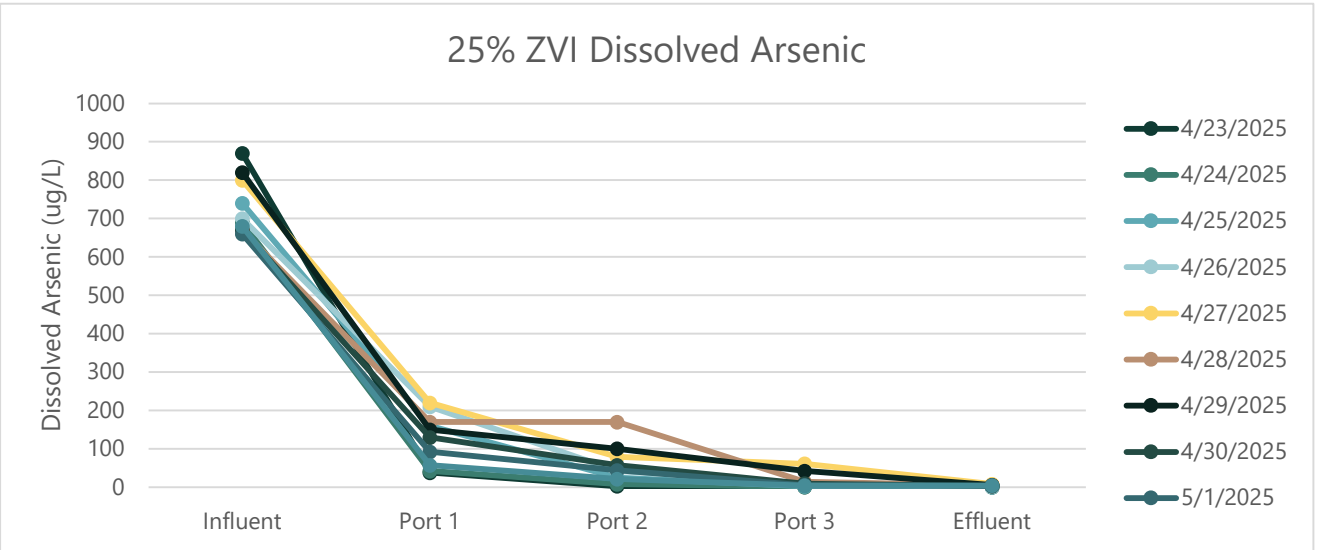
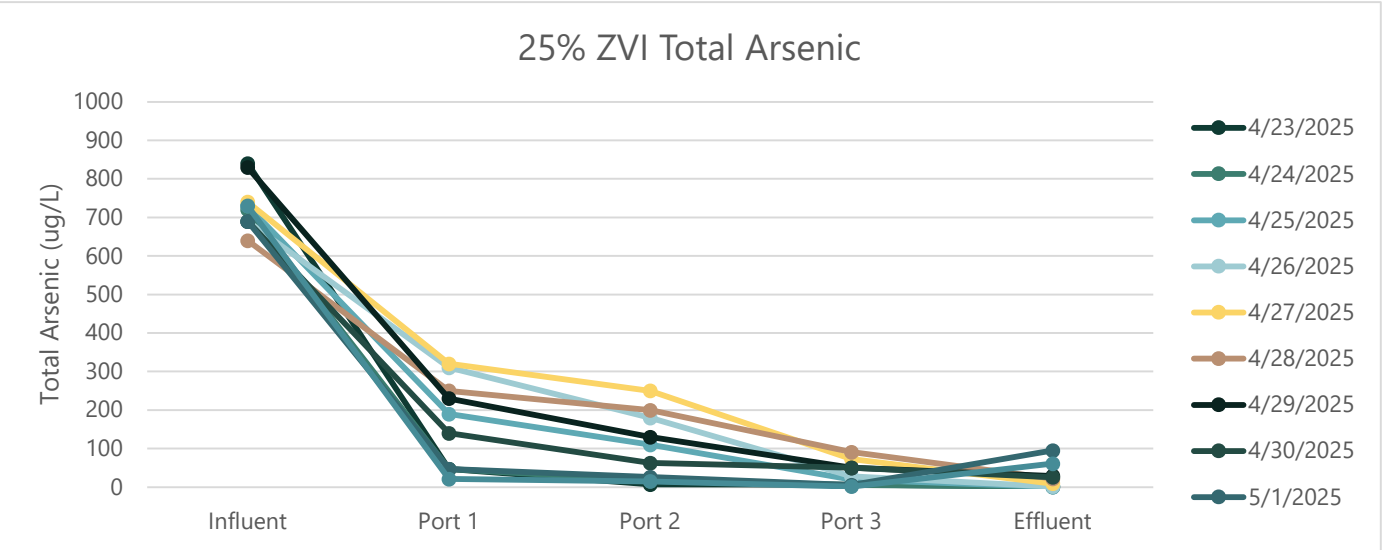
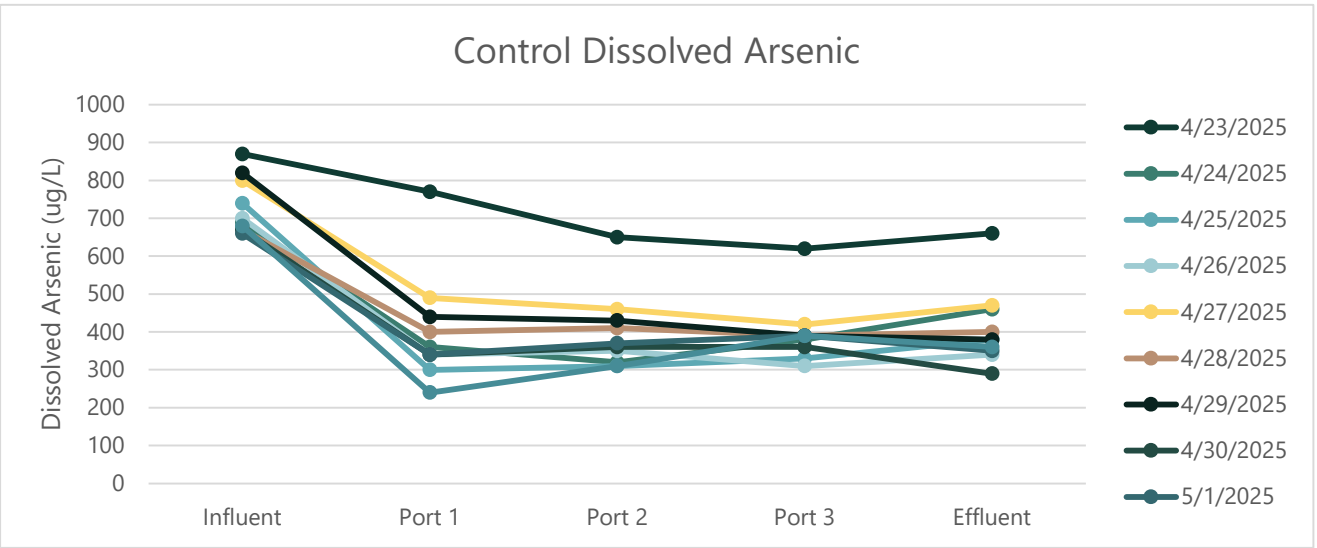
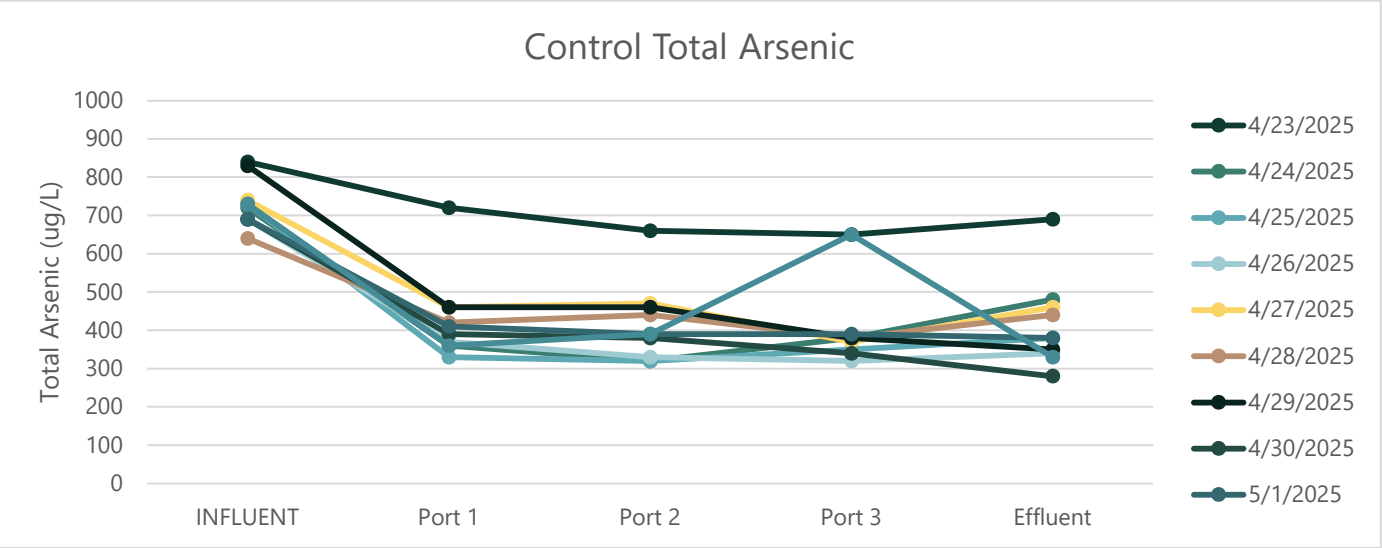


Figure 2 - Total and Dissolved Arsenic Column Profiles - By Column



**Figure 3 - Total and Dissolved Arsenic vs. Time - By Column**

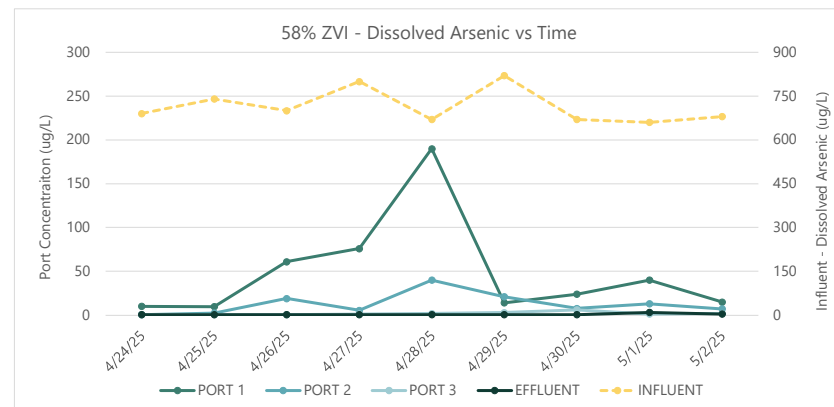
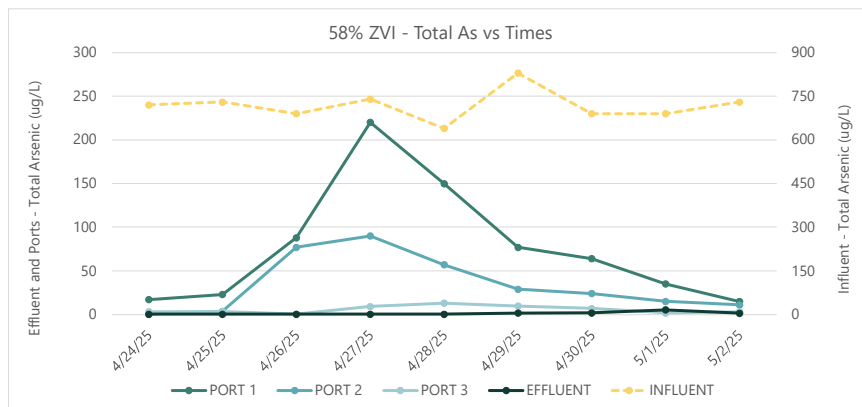
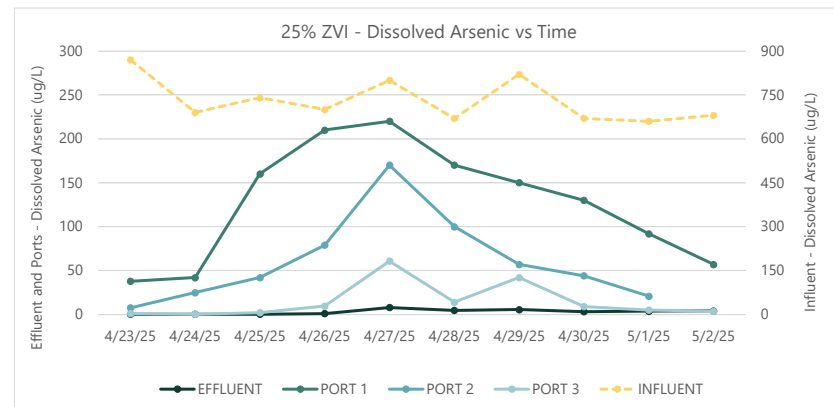
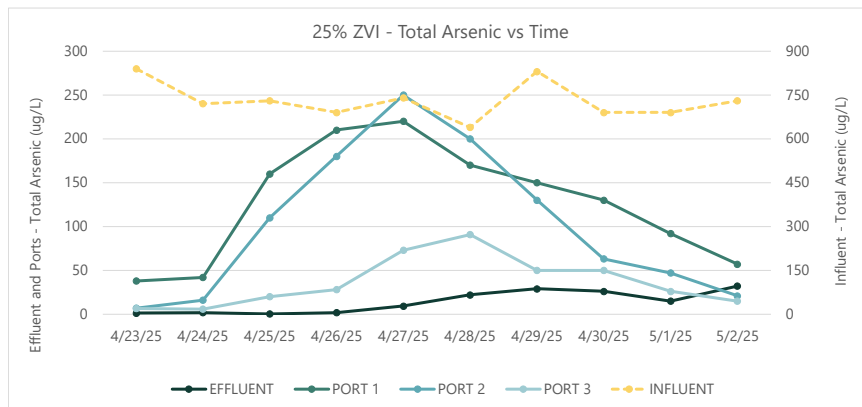
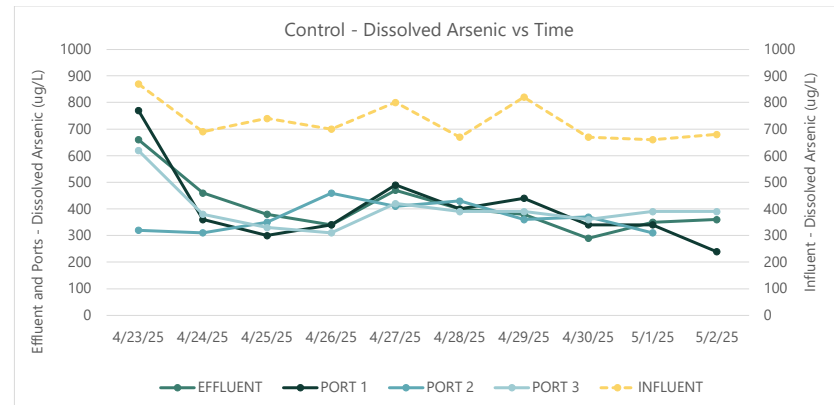
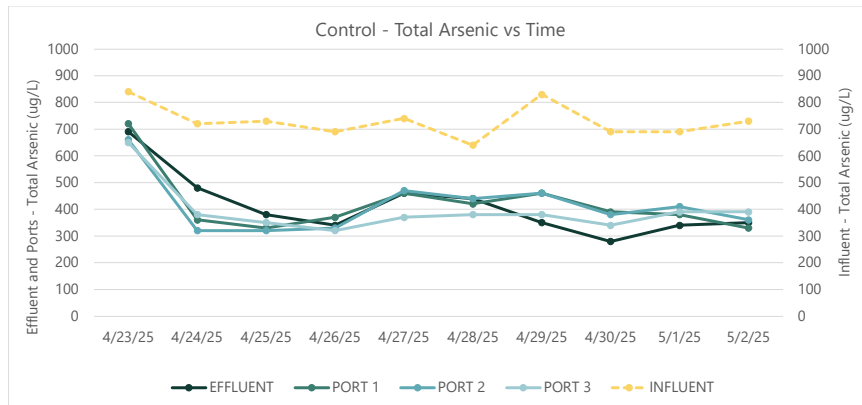




Figure 4 - Arsenic vs. Residence Time Plots

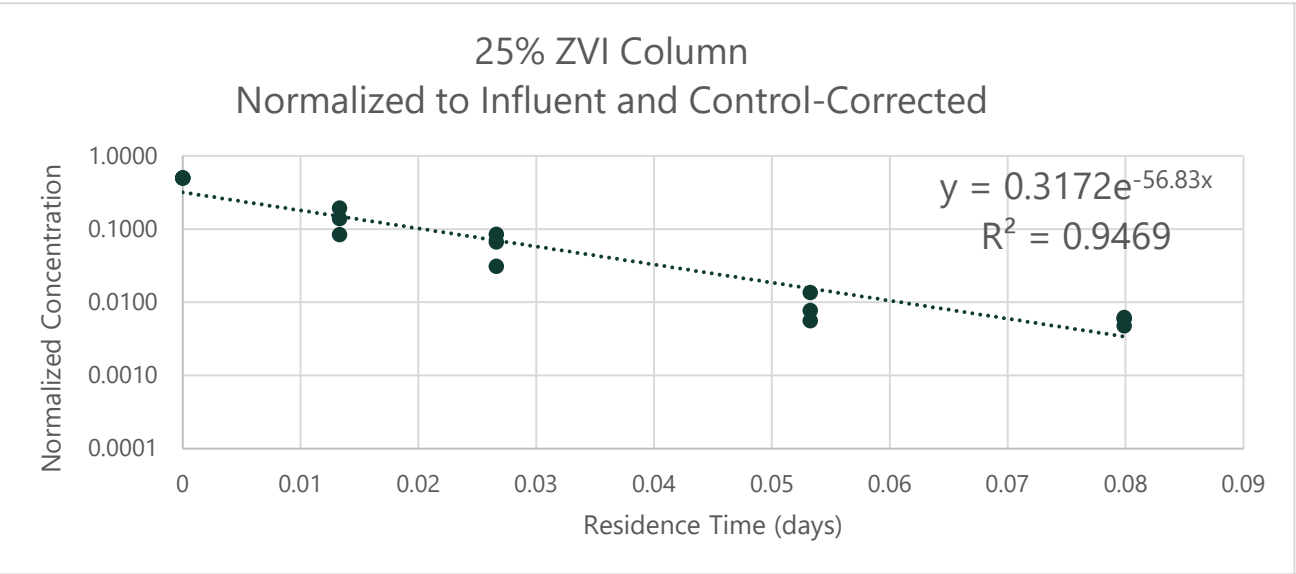
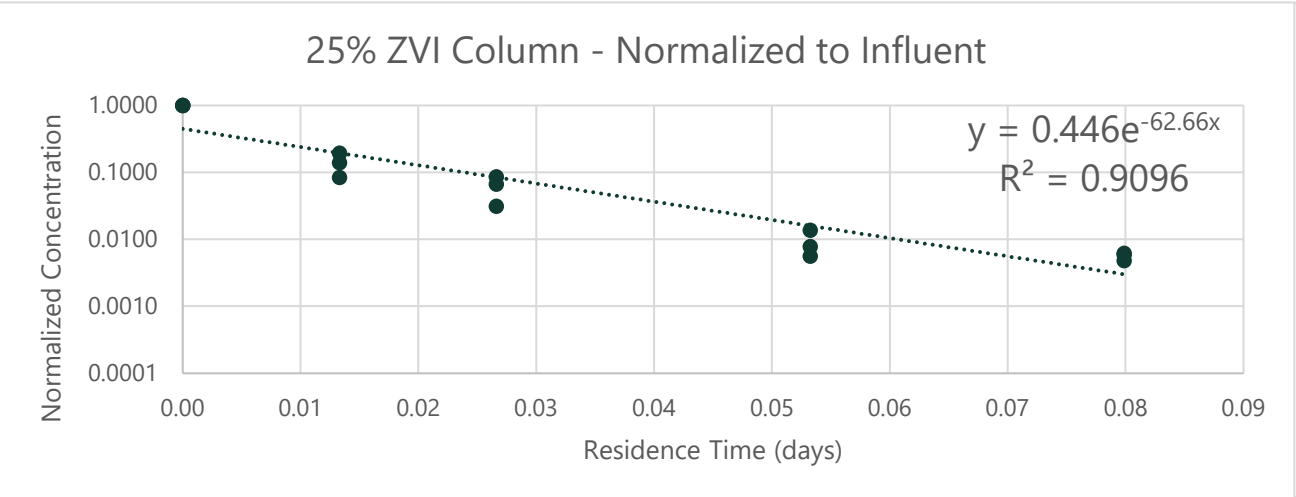
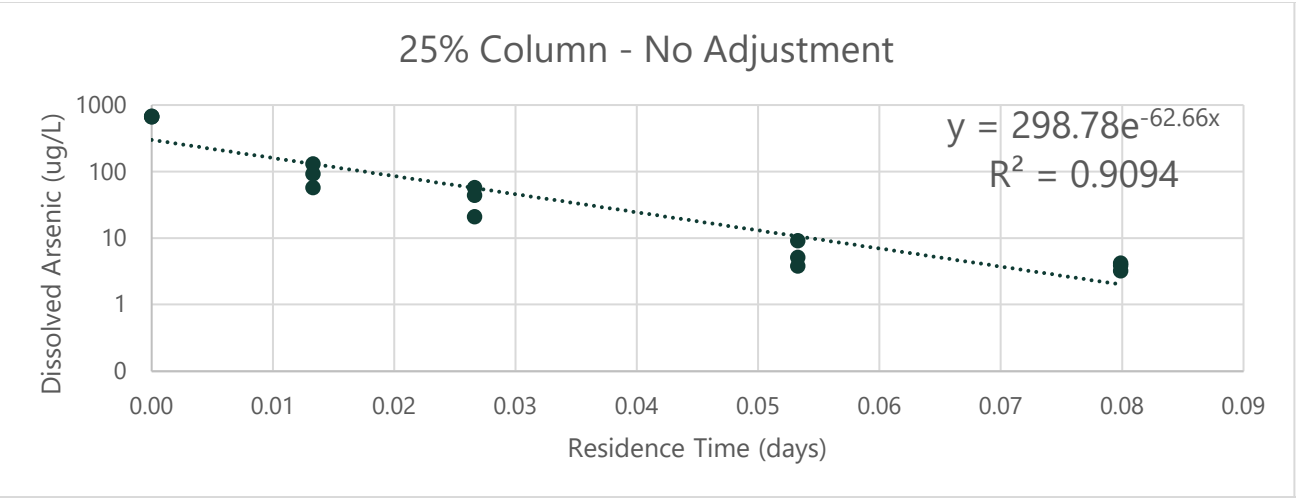


Figure 4 - Arsenic vs. Residence Time Plots

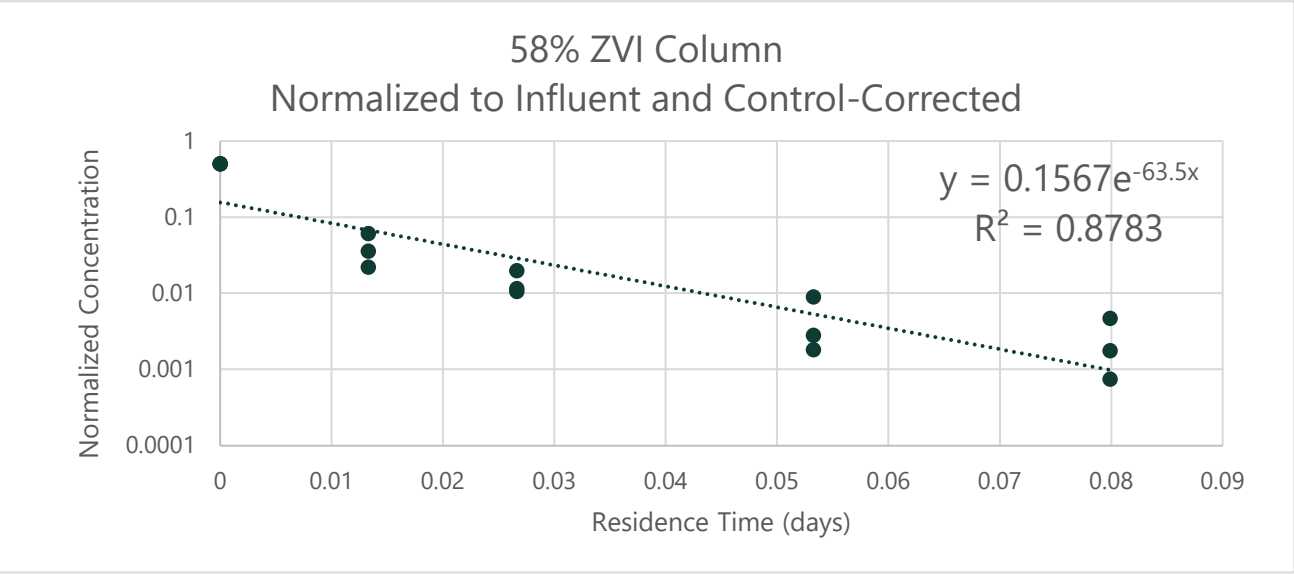
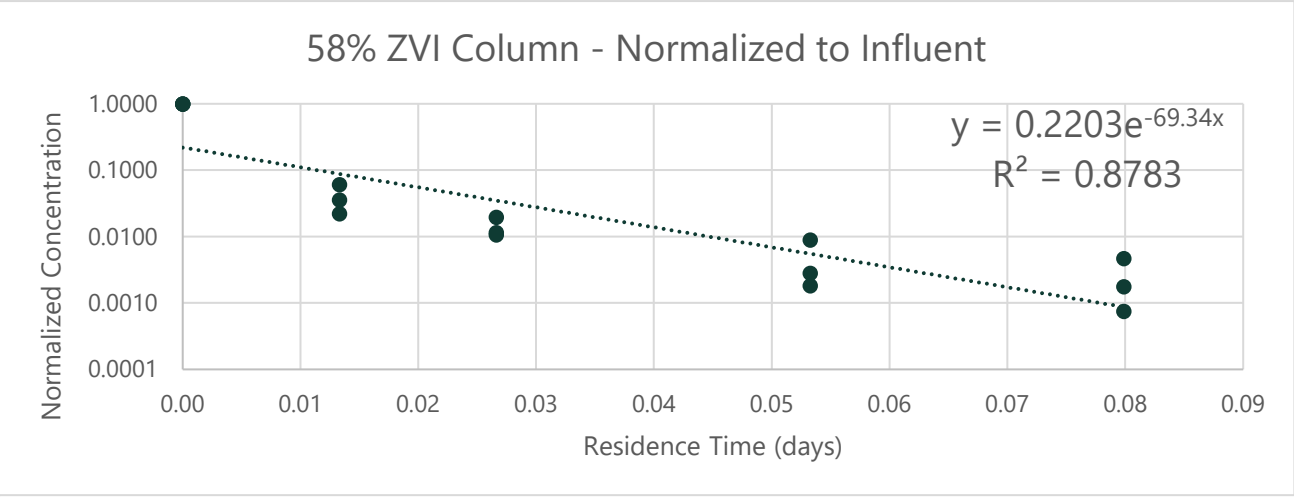
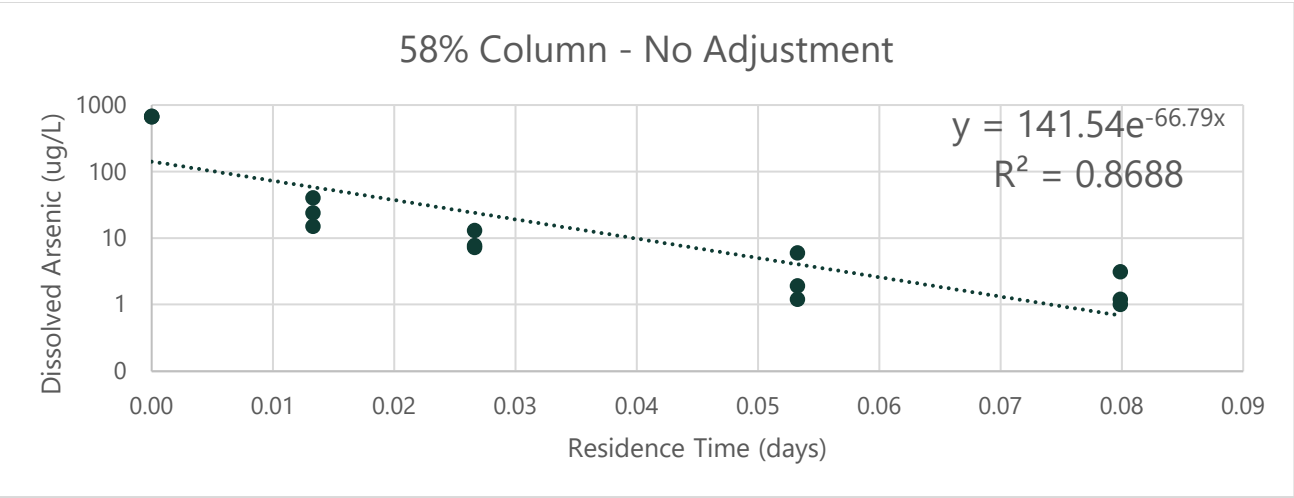
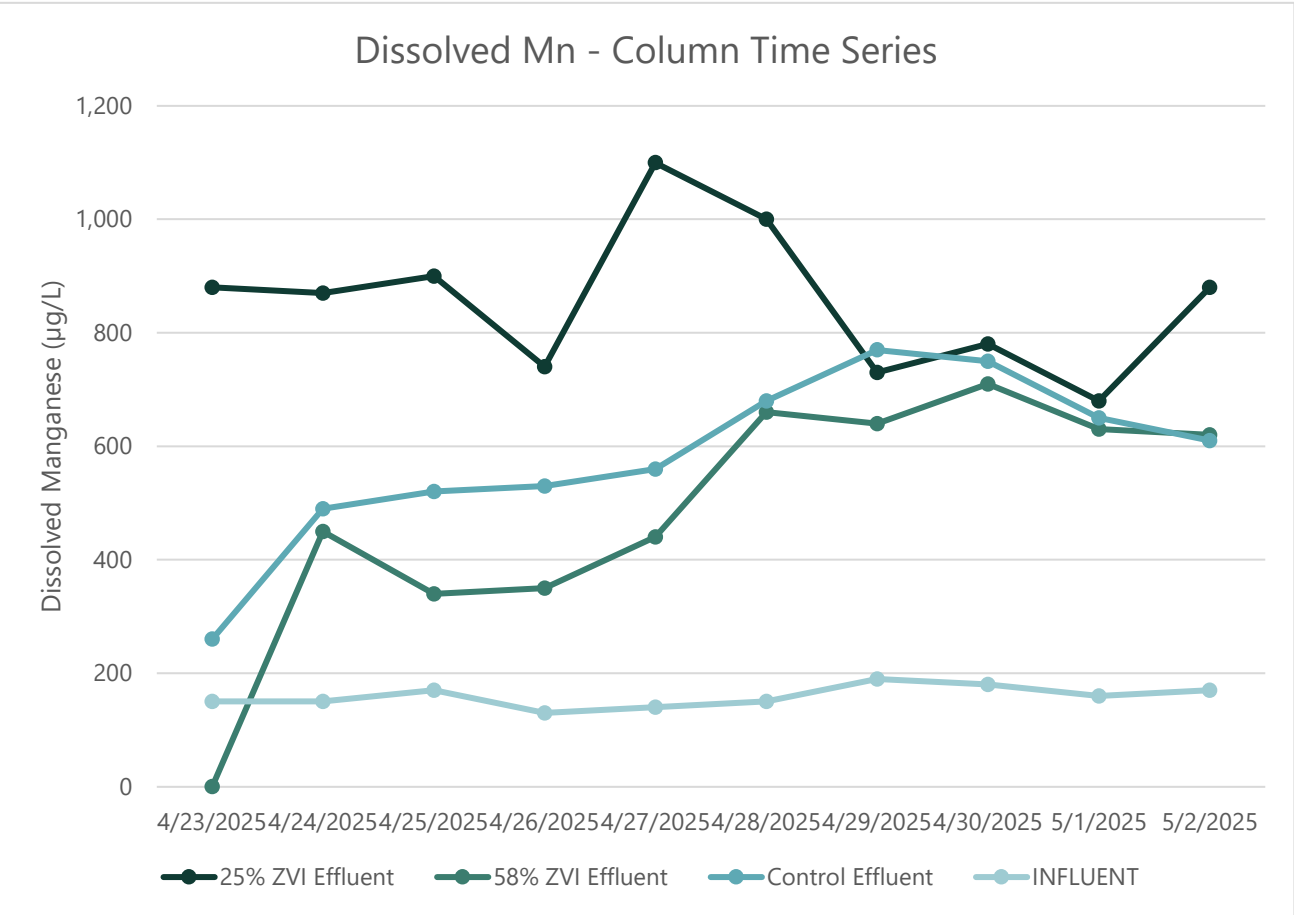
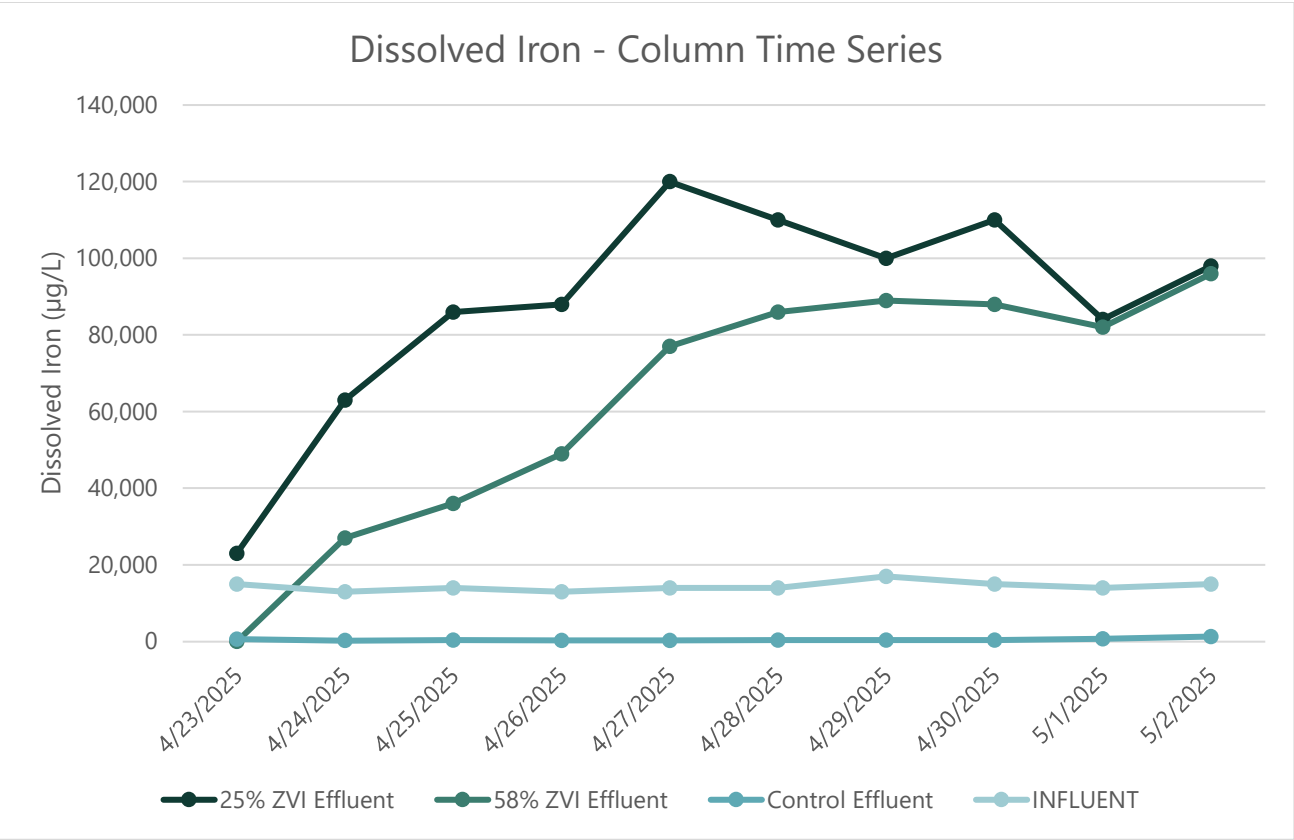


Figure 6 - Dissolved Iron and Manganese vs. Time



# **APPENDIX A**

## COLUMN TESTING FIELD RECORDS



**BLACK  
RIVER**  
environmental

Appendix A - Field Measurements

Project No. 230067, West Marginal Way Cleanup Site, Seattle, WA

| Date                          |          | 04/23/25         | 04/23/25         | 04/23/25           | 04/23/25           | 04/23/25           | 04/23/25         | 04/23/25           | 04/23/25           | 04/23/25             | 04/23/25             | 04/23/25             | 04/23/25        | 04/24/25         | 04/24/25         |
|-------------------------------|----------|------------------|------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|----------------------|----------------------|----------------------|-----------------|------------------|------------------|
| Sample ID                     |          | 20ZVI-EFF-042325 | 20ZVI-INF-042335 | 20ZVI-Port1-042335 | 20ZVI-Port2-042335 | 20ZVI-Port3-042335 | 50ZVI-INF-042325 | Control-EFF-042325 | Control-INF-042325 | Control-Port1-042325 | Control-Port2-042325 | Control-Port3-042325 | INFLUENT-042325 | 20ZVI-EFF-042425 | 20ZVI-INF-042425 |
| Field Parameters              |          |                  |                  |                    |                    |                    |                  |                    |                    |                      |                      |                      |                 |                  |                  |
| Dissolved Oxygen              | mg/L     | 1.37             | 3.55             | 0.26               | 1.00               | 0.80               | 3.86             | 5.76               | 4.18               | 3.08                 | 2.76                 | 2.77                 | 3.69            | 3.53             | 4.47             |
| Oxidation Reduction Potential | mV       | -347.0           | -82.1            | -519.4             | -573.5             | -495.0             | -78.1            | 203.9              | -73.8              | 16.4                 | 89.9                 | 58.7                 | -69.0           | -257.9           | -84.7            |
| pH                            | pH units | 7.61             | 6.56             | 7.33               | 7.56               | 7.46               | 6.61             | 6.40               | 6.55               | 6.45                 | 6.45                 | 6.45                 | 6.54            | 7.13             | 6.14             |
| Specific Conductivity         | uS/cm    | 525              | 446              | 654                | 635                | 533                | 430              | 503                | 435                | 420                  | 415                  | 409                  | 456             | 519              | 337              |

Notes:

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mg/L = milligrams per liter  
mV = milivolts  
uS/cm = microseimens per centimeter

Appendix A - Field Measurements

Project No. 230067, West Marginal Way Cleanup Site, Seattle, WA

| Date                          |          | 04/24/25           | 04/24/25           | 04/24/25           | 04/24/25         | 04/24/25         | 04/24/25           | 04/24/25           | 04/24/25           | 04/24/25           | 04/24/25           | 04/24/25             | 04/24/25             | 04/24/25             | 04/24/25        |
|-------------------------------|----------|--------------------|--------------------|--------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|-----------------|
| Sample ID                     |          | 20ZVI-Port1-042425 | 20ZVI-Port2-042425 | 20ZVI-Port3-042425 | 50ZVI-EFF-042425 | 50ZVI-INF-042425 | 50ZVI-Port1-042425 | 50ZVI-Port2-042425 | 50ZVI-Port3-042425 | Control-EFF-042425 | Control-INF-042425 | Control-Port1-042425 | Control-Port2-042425 | Control-Port3-042425 | INFLUENT-042425 |
| Field Parameters              |          |                    |                    |                    |                  |                  |                    |                    |                    |                    |                    |                      |                      |                      |                 |
| Dissolved Oxygen              | mg/L     | 4.86               | 5.34               | 6.26               | 4.09             | 4.13             | 0.88               | 1.44               | 1.16               | 5.02               | 4.18               | 3.87                 | 3.70                 | 5.46                 | 3.02            |
| Oxidation Reduction Potential | mV       | -122.1             | -24.1              | -157.0             | -215.7           | -82.2            | -213.5             | -319.2             | -351.1             | 210.8              | -84.1              | -31.8                | -3.4                 | 123.9                | -73.9           |
| pH                            | pH units | 6.90               | 6.94               | 6.95               | 6.98             | 6.18             | 7.03               | 7.25               | 7.20               | 6.24               | 6.13               | 6.45                 | 6.40                 | 6.43                 | 6.26            |
| Specific Conductivity         | uS/cm    | 364                | 305                | 382                | 198              | 334              | 455                | 439                | 371                | 428                | 346                | 316                  | 321                  | 352                  | 359             |

Notes:

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mg/L = milligrams per liter  
mV = milivolts  
uS/cm = microseimens per centimeter

Appendix A - Field Measurements

Project No. 230067, West Marginal Way Cleanup Site, Seattle, WA

| Date                          |          | 04/25/25         | 04/25/25         | 04/25/25           | 04/25/25           | 04/25/25           | 04/25/25         | 04/25/25         | 04/25/25           | 04/25/25           | 04/25/25           | 04/25/25           | 04/25/25           | 04/25/25             | 04/25/25             |
|-------------------------------|----------|------------------|------------------|--------------------|--------------------|--------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|
| Sample ID                     |          | 20ZVI-EFF-042525 | 20ZVI-INF-042525 | 20ZVI-Port1-042525 | 20ZVI-Port2-042525 | 20ZVI-Port3-042525 | 50ZVI-EFF-042525 | 50ZVI-INF-042525 | 50ZVI-Port1-042525 | 50ZVI-Port2-042525 | 50ZVI-Port3-042525 | Control-EFF-042525 | Control-INF-042525 | Control-Port1-042525 | Control-Port2-042525 |
| Field Parameters              |          |                  |                  |                    |                    |                    |                  |                  |                    |                    |                    |                    |                    |                      |                      |
| Dissolved Oxygen              | mg/L     | 4.42             | 6.73             | 3.88               | 4.70               | 6.16               | 3.64             | 6.53             | 3.45               | 3.51               | 7.71               | 7.57               | 5.76               | 7.14                 | 6.73                 |
| Oxidation Reduction Potential | mV       | -149.1           | -89.0            | -181.2             | -136.5             | -109.0             | -276.6           | -79.7            | -142.8             | -172.9             | -37.2              | 212.3              | -94.2              | 27.2                 | 45.7                 |
| pH                            | pH units | 6.78             | 6.76             | 6.86               | 6.83               | 6.78               | 7.18             | 6.65             | 6.93               | 7.02               | 7.07               | 6.50               | 6.61               | 6.55                 | 6.15                 |
| Specific Conductivity         | uS/cm    | 462              | 308              | 447                | 394                | 439                | 351              | 312              | 396                | 442                | 448                | 455                | 314                | 302                  | 294                  |

Notes:

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mg/L = milligrams per liter  
mV = milivolts  
uS/cm = microseimens per centimeter

Appendix A - Field Measurements

Project No. 230067, West Marginal Way Cleanup Site, Seattle, WA

| Date                          |          | 04/25/25             | 04/25/25        | 04/26/25         | 04/26/25           | 04/26/25           | 04/26/25           | 04/26/25         | 04/26/25           | 04/26/25           | 04/26/25           | 04/26/25           | 04/26/25             | 04/26/25             | 04/26/25             |
|-------------------------------|----------|----------------------|-----------------|------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|
| Sample ID                     |          | Control-Port3-042525 | INFLUENT-042525 | 20ZVI-EFF-042625 | 20ZVI-Port1-042625 | 20ZVI-Port2-042625 | 20ZVI-Port3-042625 | 50ZVI-EFF-042625 | 50ZVI-Port1-042625 | 50ZVI-Port2-042625 | 50ZVI-Port3-042625 | Control-EFF-042625 | Control-Port1-042625 | Control-Port2-042625 | Control-Port3-042625 |
| Field Parameters              |          |                      |                 |                  |                    |                    |                    |                  |                    |                    |                    |                    |                      |                      |                      |
| Dissolved Oxygen              | mg/L     | 7.47                 | 5.98            | 6.25             | 5.28               | 7.29               | 5.45               | 7.65             | 4.70               | 5.90               | 5.44               | 6.84               | 5.57                 | 6.94                 | 5.96                 |
| Oxidation Reduction Potential | mV       | 102.0                | -69.3           | -93.8            | -99.4              | -70.2              | -124.3             | -100.8           | -129.6             | -127.7             | -144.7             | 208.3              | -29.6                | -12.2                | -75.1                |
| pH                            | pH units | 6.61                 | 6.64            | 6.83             | 6.76               | 6.77               | 7.01               | 6.90             | 6.95               | 6.87               | 7.06               | 6.45               | 6.51                 | 6.60                 | 6.80                 |
| Specific Conductivity         | uS/cm    | 305                  | 304             | 546              | 447                | 397                | 494                | 369              | 484                | 446                | 476                | 393                | 351                  | 344                  | 333                  |

Notes:

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mg/L = milligrams per liter  
mV = milivolts  
uS/cm = microseimens per centimeter



Appendix A - Field Measurements

Project No. 230067, West Marginal Way Cleanup Site, Seattle, WA

| Date                          |          | 04/26/25        | 04/27/25         | 04/27/25           | 04/27/25           | 04/27/25           | 04/27/25         | 04/27/25           | 04/27/25           | 04/27/25           | 04/27/25           | 04/27/25             | 04/27/25             | 04/27/25             | 04/27/25        |
|-------------------------------|----------|-----------------|------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|-----------------|
| Sample ID                     |          | INFLUENT-042625 | 20ZVI-EFF-042725 | 20ZVI-Port1-042725 | 20ZVI-Port2-042725 | 20ZVI-Port3-042725 | 50ZVI-EFF-042725 | 50ZVI-Port1-042725 | 50ZVI-Port2-042725 | 50ZVI-Port3-042725 | Control-EFF-042725 | Control-Port1-042725 | Control-Port2-042725 | Control-Port3-042725 | INFLUENT-042725 |
| Field Parameters              |          |                 |                  |                    |                    |                    |                  |                    |                    |                    |                    |                      |                      |                      |                 |
| Dissolved Oxygen              | mg/L     | 6.75            | 6.55             | 5.85               | 5.87               | 6.95               | 7.61             | 5.08               | 5.88               | 8.61               | 7.29               | 6.79                 | 6.67                 | 7.27                 | 3.33            |
| Oxidation Reduction Potential | mV       | -73.2           | -59.9            | -71.5              | -102.9             | -102.3             | -80.7            | -118.5             | -126.9             | -81.2              | 219.0              | 9.6                  | -24.6                | 5.3                  | -55.6           |
| pH                            | pH units | 6.75            | 6.71             | 6.54               | 6.75               | 6.62               | 6.70             | 6.78               | 6.94               | 6.83               | 6.45               | 6.38                 | 6.51                 | 6.63                 | 6.41            |
| Specific Conductivity         | uS/cm    | 359             | 558              | 412                | 487                | 384                | 492              | 501                | 449                | 369                | 472                | 346                  | 325                  | 327                  | 370             |

Notes:

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mg/L = milligrams per liter  
mV = milivolts  
uS/cm = microseimens per centimeter

Appendix A - Field Measurements

Project No. 230067, West Marginal Way Cleanup Site, Seattle, WA

| Date                          |          | 04/28/25         | 04/28/25           | 04/28/25           | 04/28/25         | 04/28/25           | 04/28/25           | 04/28/25           | 04/28/25             | 04/28/25             |
|-------------------------------|----------|------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|----------------------|----------------------|
| Sample ID                     |          | 20ZVI-EFF-042825 | 20ZVI-Port2-042825 | 20ZVI-Port3-042825 | 50ZVI-EFF-042825 | 50ZVI-Port2-042825 | 50ZVI-Port3-042825 | Control-EFF-042825 | Control-Port2-042825 | Control-Port3-042825 |
| Field Parameters              |          |                  |                    |                    |                  |                    |                    |                    |                      |                      |
| Dissolved Oxygen              | mg/L     | 6.68             | 6.32               | 5.33               | 8.23             | 7.01               | 5.88               | 7.58               | 7.00                 | 6.73                 |
| Oxidation Reduction Potential | mV       | -43.0            | -75.4              | -116.5             | -79.6            | -94.3              | -128.4             | 217.3              | -27.2                | 2.0                  |
| pH                            | pH units | 6.68             | 6.81               | 6.93               | 6.80             | 6.94               | 7.07               | 6.53               | 6.67                 | 6.64                 |
| Specific Conductivity         | uS/cm    | 552              | 425                | 487                | 408              | 486                | 528                | 445                | 358                  | 359                  |

Notes:

---

mg/L = milligrams per liter  
mV = milivolts  
uS/cm = microseimens per centimeter

# **APPENDIX B**

## ZVI MATERIAL SPECIFICATIONS



**BLACK  
RIVER**  
environmental

# Screen Specification CC-1004 (-8+50 Mesh)



## U.S. Screen Size

| Number | Opening  | % Passing | Micron Range |
|--------|----------|-----------|--------------|
| 4      | 4.750 mm | 100       | 4750         |
| 8      | 2.360 mm | 95 - 100  | 2360         |
| 16     | 1.180 mm | 75 - 90   | 1180         |
| 30     | 0.600 mm | 25 - 45   | 600          |
| 50     | 0.300 mm | 0 - 10    | 300          |
| 100    | 0.150 mm | 0 - 5     | 150          |

## Iron Aggregate Analysis

| Iron/Iron Oxide | Balance |
|-----------------|---------|
| Total Carbon    | 2.48    |
| Manganese       | 0.93    |
| Sulphur         | 0.12    |
| Phosphorous     | ND      |
| Silicon         | 0.35    |
| Nickel          | >0.01   |
| Chromium        | >0.01   |
| Vanadium        | ND      |
| Molybdenum      | 0.33    |
| Copper          | 0.10    |
| Aluminum        | >0.01   |
| Magnesium       | 0.01    |
| Boron           | 0.01    |
| Zinc            | 0.01    |
| Zirconium       | 0.01    |

**CONNELLY – GPM, INC.**

ESTABLISHED 1875

3154 South California Avenue, Chicago, Illinois, 60608-5176

(773) 247-7231 | [info@connellygpm.com](mailto:info@connellygpm.com) | [www.ConnellyGPM.com](http://www.ConnellyGPM.com)



# **APPENDIX C**

## LABORATORY ANALYTICAL REPORTS



**BLACK  
RIVER**  
environmental

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

April 25, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the results from the testing of material submitted on April 23, 2025 from the Glacier Northwest AS230067, F&BI 504386 project. There are 31 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Marc Chalfant  
ASP0425R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 23, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504386 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504386 -01           | Control-EFF-042325       |
| 504386 -02           | 20ZVI-EFF-042325         |
| 504386 -03           | Control-Port 3-042325    |
| 504386 -04           | 20ZVI-Port 3-042325      |
| 504386 -05           | Control- Port 2-042325   |
| 504386 -06           | 20ZVI-Port 2-042325      |
| 504386 -07           | Control-Port 1-042325    |
| 504386 -08           | 20ZVI-Port 1-042325      |
| 504386 -09           | Control-INF-042325       |
| 504386 -10           | 20ZVI-INF-042325         |
| 504386 -11           | 50ZVI-INF-042325         |
| 504386 -12           | INFLUENT-042325          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, Fl, Br) were sent to Alliance Technical Group for testing. The report will be forwarded upon receipt.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-01 x2               |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-01 x2.154           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 200 |
|------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-01 x5               |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-01 x5.131           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 690 |
| Copper  | 4.7 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-01 x50              |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-01 x50.147          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 240 |
|-----------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-02 x5               |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-02 x5.132           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.3 |
| Copper  | 23  |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-02 x200             |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-02 x200.149         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 54,000 |
| Manganese | 1,000  |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-09 x5               |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-09 x5.133           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 860 |
| Copper  | 4.2 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-09 x100             |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-09 x100.160         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 16,000 |
| Manganese | 160    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-10 x5               |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-10 x5.134           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 840 |
| Copper  | 11  |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-10 x100             |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-10 x100.162         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 20,000 |
| Manganese | 180    |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-11 x5               |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-11 x5.135           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
| Arsenic  | 830                         |
| Copper   | 4.8                         |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-11 x100             |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-11 x100.163         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 17,000 |
| Manganese | 170    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25        | Lab ID:     | 504386-12 x5               |
| Date Analyzed:    | 04/24/25        | Data File:  | 504386-12 x5.136           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 840 |
| Copper  | 4.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25        | Lab ID:     | 504386-12 x100             |
| Date Analyzed:    | 04/24/25        | Data File:  | 504386-12 x100.164         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 15,000 |
| Manganese | 150    |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25       | Lab ID:     | I5-346 mb                  |
| Date Analyzed:    | 04/24/25       | Data File:  | I5-346 mb.116              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |      |
|-----------|------|
| Arsenic   | <0.2 |
| Copper    | <0.5 |
| Iron      | <50  |
| Manganese | <1   |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-01 x5               |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-01 x5.122           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
| Arsenic  | 660                         |
| Copper   | 6.0                         |
| Iron     | 650                         |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-01 x20              |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-01 x20.140          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 260 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-02 x5               |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-02 x5.123           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.5 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-02 x200             |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-02 x200.141         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 23,000 |
| Manganese | 880    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-09 x5               |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-09 x5.124           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 850  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25           | Lab ID:     | 504386-09 x100             |
| Date Analyzed:    | 04/24/25           | Data File:  | 504386-09 x100.142         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 15,000 |
| Manganese | 150    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-10 x5               |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-10 x5.125           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 910 |
| Copper  | 8.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-10 x100             |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-10 x100.144         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 18,000 |
| Manganese | 180    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-11 x5               |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-11 x5.126           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 850 |
| Copper  | 2.8 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25         | Lab ID:     | 504386-11 x100             |
| Date Analyzed:    | 04/24/25         | Data File:  | 504386-11 x100.145         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 16,000 |
| Manganese | 160    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25        | Lab ID:     | 504386-12 x5               |
| Date Analyzed:    | 04/24/25        | Data File:  | 504386-12 x5.127           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 870 |
| Copper  | 2.5 |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25        | Lab ID:     | 504386-12 x100             |
| Date Analyzed:    | 04/24/25        | Data File:  | 504386-12 x100.146         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 15,000 |
| Manganese | 150    |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/24/25       | Lab ID:     | I5-345 mb                  |
| Date Analyzed:    | 04/24/25       | Data File:  | I5-345 mb.112              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |      |
|-----------|------|
| Arsenic   | <0.2 |
| Copper    | <0.5 |
| Iron      | <50  |
| Manganese | <1   |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/25/25

Date Received: 04/23/25

Project: Glacier Northwest AS230067, F&BI 504386

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic   | ug/L (ppb)         | 10             | 98                         | 97                          | 80-120                 | 1                 |
| Copper    | ug/L (ppb)         | 20             | 99                         | 97                          | 80-120                 | 2                 |
| Iron      | ug/L (ppb)         | 100            | 96                         | 96                          | 80-120                 | 0                 |
| Manganese | ug/L (ppb)         | 20             | 98                         | 97                          | 80-120                 | 1                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/25/25

Date Received: 04/23/25

Project: Glacier Northwest AS230067, F&BI 504386

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic   | ug/L (ppb)         | 10             | 99                         | 98                          | 80-120                 | 1                 |
| Copper    | ug/L (ppb)         | 20             | 99                         | 99                          | 80-120                 | 0                 |
| Iron      | ug/L (ppb)         | 200            | 97                         | 97                          | 80-120                 | 0                 |
| Manganese | ug/L (ppb)         | 20             | 99                         | 98                          | 80-120                 | 1                 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Note: Rush TAT applies to marked samples for Total and Dissolved Metals

504386

**SAMPLE CHAIN OF CUSTODY**

04/28/25 02/14

Page # 1 of 3

SAMPLERS (signature)  
*Emily Ruster*

PROJECT NAME  
Glacier Northwest

PO #

AS230067

REMARKS

Field filtered for dissolved metals.

Project specific RLS? - Yes/No

INVOICE TO

Please invoice through Coupa

(6020B)

**TURNAROUND TIME**  
☐ Standard turnaround  
☒ RUSH 24-hr TAT  
Rush charges authorized by:

**SAMPLE DISPOSAL**  
☐ Archive samples  
☐ Other  
Default: Dispose after 30 days

Report To: Delia Massery, Marc Chantant  
Company: Aspect consulting  
Address: 710 2nd Ave, Suite 550  
City, State, ZIP: Seattle, WA 98104  
Phone: 206-413-5437 Email: Delia.Massery@aspect.com

| Sample ID             | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Notes                |
|-----------------------|--------|--------------|--------------|-------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Control-EFF-042325    | 01A-I  | 4/23/25      | 1330         | W           | 9         | Alkalinity (sm 2320)<br>pH (sm 2320)<br>NWT PH-Gx<br>Total Organic Carbon (sm 5310)<br>DTEX EPA 8021 (sm 5310)<br>NWT PH-HCID<br>Salinity (sm 2520)<br>VOCs EPA 8260<br>PCP (sm 8270E-G)<br>PAHs EPA 8270<br>Total Dissolved Solids (sm 2540E-G)<br>PCP EPA 8082 (sm 2540E-G)<br>Total Metals (As, Cu, Cd, Fe, Mg, Mn, Ni, Pb, Zn) (6020B)<br>Dissolved Metals (As, Cu, Cd, Fe, Mg, Mn, Ni, Pb, Zn) (6020B)<br>Total As + Cu (6020B)<br>Dissolved As + Cu (6020B)<br>Br, Cl, F, SO4 EPA 300.0 | RUSH TAT<br>RUSH TAT |
| 202V1-EFF-042325      | 02A-H  |              | 1335         |             | 8         | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | RUSH TAT             |
| Control-Port 3-042325 | 03A-B  |              | 1525         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |
| 202V1-Port 3-042325   | 04     |              | 1435         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |
| Control-Port 2-042325 | 05     |              | 1545         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |
| 202V1-Port 2-042325   | 06     |              | 1455         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |
| Control-Port 1-042325 | 07     |              | 1555         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |
| 202V1-Port 1-042325   | 08     |              | 1510<br>1515 |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |
| Control-INF-042325    | 09A-I  |              | 1615         |             | 9         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RUSH TAT             |
| 202V1-INF-042325      | 10A-H  |              | 1625         |             | 8         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RUSH TAT             |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by: *Emily Ruster*

Received by: *Aspect*

Emily Ruster

Aspect

4/23/25 18:30

Relinquished by: *Joe Mohammed*

Joe Mohammed

FBI

4/23/25

15:30

Received by:

Samples received at 3:00

Friedman & Bruya, Inc.  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

Andrew Yonkotski,  
Marc Chai Fung, and

04/28/20 C2/JH

Page # 20

SAMPLES (signature)  
Gundlacker

PO #

AS2300107

City, State, ZIP Seattle, WA 98104

Phone 206-413-3407 Email DebraMassey@

Exposures: low

REMARKS  
Field Filtered for dissolved  
metals.  
Project specific RLs? - Yes / No

INVOICE TO  
Please Invoice through  
Laura

**SAMPLE DISPOSAL**

☐ Archive samples

☐ Other \_\_\_\_\_

Default: Dispose after 30 days

☐ Other \_\_\_\_\_

Default: Dispose after 30 days

[illegible]

**Friedman & Brya, Inc.**  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbrya.com

| SIGNATURE                                                                                            | PRINT NAME   | COMPANY             | DATE    | TIME  |
|------------------------------------------------------------------------------------------------------|--------------|---------------------|---------|-------|
| Relinquished by:    | Emily Rusen  | Aspect              | 4/23/25 | 18:30 |
| Received by:       | Joe Matamoro | FBI                 | 4/23/25 | 18:30 |
| Relinquished by:  |              |                     |         |       |
| Received by:                                                                                         |              | Samples received at | 3       | on    |

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504386 CLIENT ASP INITIALS/ DATE: 04/23/15 AS

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 3 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/ AP  
\*or other representative documents, letters, and/or shipping memos Date: 4/24/15

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |                                           |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\*            Number of unused TO17 tubes           

\*\*Fill out Green manifolds billing sheet



FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

April 28, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the additional results from the testing of material submitted on April 23, 2025 from the Glacier Northwest AS230067, F&BI 504386 project. There are 21 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Marc Chalfant  
ASP0428R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 23, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504386 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504386 -01           | Control-EFF-042325       |
| 504386 -02           | 20ZVI-EFF-042325         |
| 504386 -03           | Control-Port 3-042325    |
| 504386 -04           | 20ZVI-Port 3-042325      |
| 504386 -05           | Control- Port 2-042325   |
| 504386 -06           | 20ZVI-Port 2-042325      |
| 504386 -07           | Control-Port 1-042325    |
| 504386 -08           | 20ZVI-Port 1-042325      |
| 504386 -09           | Control-INF-042325       |
| 504386 -10           | 20ZVI-INF-042325         |
| 504386 -11           | 50ZVI-INF-042325         |
| 504386 -12           | INFLUENT-042325          |

All quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                                         |
|-------------------|-----------------------|-------------|-----------------------------------------|
| Client Sample ID: | Control-Port 3-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25              | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25              | Lab ID:     | 504386-03 x5                            |
| Date Analyzed:    | 04/25/25              | Data File:  | 504386-03 x5.173                        |
| Matrix:           | Water                 | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)            | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 650 |
| Copper  | 9.0 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 3-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25            | Lab ID:     | 504386-04 x5                            |
| Date Analyzed:    | 04/25/25            | Data File:  | 504386-04 x5.174                        |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 6.6 |
|---------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 3-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25            | Lab ID:     | 504386-04 x50                           |
| Date Analyzed:    | 04/28/25            | Data File:  | 504386-04 x50.046                       |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 870 |
|--------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                        |             |                                         |
|-------------------|------------------------|-------------|-----------------------------------------|
| Client Sample ID: | Control- Port 2-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25               | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25               | Lab ID:     | 504386-05 x5                            |
| Date Analyzed:    | 04/25/25               | Data File:  | 504386-05 x5.175                        |
| Matrix:           | Water                  | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)             | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 660 |
| Copper  | 5.2 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 2-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25            | Lab ID:     | 504386-06 x5                            |
| Date Analyzed:    | 04/25/25            | Data File:  | 504386-06 x5.176                        |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 7.1 |
|---------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 2-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25            | Lab ID:     | 504386-06 x20                           |
| Date Analyzed:    | 04/28/25            | Data File:  | 504386-06 x20.048                       |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 400 |
|--------|-----|



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                                         |
|-------------------|-----------------------|-------------|-----------------------------------------|
| Client Sample ID: | Control-Port 1-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25              | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25              | Lab ID:     | 504386-07 x5                            |
| Date Analyzed:    | 04/25/25              | Data File:  | 504386-07 x5.177                        |
| Matrix:           | Water                 | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)            | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 720 |
| Copper  | 4.5 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 1-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25            | Lab ID:     | 504386-08 x5                            |
| Date Analyzed:    | 04/25/25            | Data File:  | 504386-08 x5.178                        |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 47 |
|---------|----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 1-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25            | Lab ID:     | 504386-08 x20                           |
| Date Analyzed:    | 04/28/25            | Data File:  | 504386-08 x20.049                       |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 250 |
|--------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                                         |
|-------------------|----------------|-------------|-----------------------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting                       |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/25/25       | Lab ID:     | I5-346 mb2                              |
| Date Analyzed:    | 04/25/25       | Data File:  | I5-346 mb2.047                          |
| Matrix:           | Water          | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)     | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <0.5 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                                         |
|-------------------|-----------------------|-------------|-----------------------------------------|
| Client Sample ID: | Control-Port 3-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25              | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/24/25              | Lab ID:     | 504386-03 x5                            |
| Date Analyzed:    | 04/24/25              | Data File:  | 504386-03 x5.181                        |
| Matrix:           | Water                 | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)            | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 620 |
| Copper  | 5.4 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 3-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/24/25            | Lab ID:     | 504386-04 x5                            |
| Date Analyzed:    | 04/24/25            | Data File:  | 504386-04 x5.182                        |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.1 |
| Copper  | 12  |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                        |             |                                         |
|-------------------|------------------------|-------------|-----------------------------------------|
| Client Sample ID: | Control- Port 2-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25               | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/24/25               | Lab ID:     | 504386-05 x5                            |
| Date Analyzed:    | 04/24/25               | Data File:  | 504386-05 x5.183                        |
| Matrix:           | Water                  | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)             | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 650 |
| Copper  | 2.7 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 2-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/24/25            | Lab ID:     | 504386-06 x5                            |
| Date Analyzed:    | 04/24/25            | Data File:  | 504386-06 x5.184                        |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 2.6 |
| Copper  | 5.0 |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                                         |
|-------------------|-----------------------|-------------|-----------------------------------------|
| Client Sample ID: | Control-Port 1-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25              | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/24/25              | Lab ID:     | 504386-07 x5                            |
| Date Analyzed:    | 04/24/25              | Data File:  | 504386-07 x5.185                        |
| Matrix:           | Water                 | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)            | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 770  |
| Copper  | <2.5 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                                         |
|-------------------|---------------------|-------------|-----------------------------------------|
| Client Sample ID: | 20ZVI-Port 1-042325 | Client:     | Aspect Consulting                       |
| Date Received:    | 04/23/25            | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/24/25            | Lab ID:     | 504386-08 x5                            |
| Date Analyzed:    | 04/24/25            | Data File:  | 504386-08 x5.186                        |
| Matrix:           | Water               | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)          | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 38   |
| Copper  | <2.5 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                                         |
|-------------------|----------------|-------------|-----------------------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting                       |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067, F&BI 504386 |
| Date Extracted:   | 04/24/25       | Lab ID:     | I5-345 mb                               |
| Date Analyzed:    | 04/24/25       | Data File:  | I5-345 mb.112                           |
| Matrix:           | Water          | Instrument: | ICPMS3                                  |
| Units:            | ug/L (ppb)     | Operator:   | SP                                      |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <0.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/28/25

Date Received: 04/23/25

Project: Glacier Northwest AS230067, F&BI 504386

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 98                         | 97                          | 80-120                 | 1                 |
| Copper  | ug/L (ppb)         | 20             | 99                         | 97                          | 80-120                 | 2                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/28/25

Date Received: 04/23/25

Project: Glacier Northwest AS230067, F&BI 504386

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 99                         | 98                          | 80-120                 | 1                 |
| Copper  | ug/L (ppb)         | 20             | 99                         | 99                          | 80-120                 | 0                 |

**Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Note: Rush TAT applies to marked samples for Total and Dissolved Metals.

504386

**SAMPLE CHAIN OF CUSTODY**

04/28/25 02/14

Page # 1 of 3

SAMPLERS (signature)  
*Emily Rusten*

PROJECT NAME  
Glacier Northwest

PO #  
AS230067

REMARKS  
Field filtered for dissolved metals.

INVOICE TO  
Please invoice through Coupa

Project specific RLS? - Yes/No

Standard turnaround  
RUSH 24-hr TAT

Rush charges authorized by:  
AS and Cu rushed 04/28/25 ME/MC

SAMPLE DISPOSAL  
Default: Dispose after 30 days

City, State, ZIP Seattle, WA 98104

Phone 206-413-5437 Email Delia.Massengal@geosyntec.com

| Sample ID             | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                                                                                                                                                                                                                                                                                                                                                                                                                                          | Notes    |
|-----------------------|--------|--------------|--------------|-------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Control-EFF-042325    | 01A-I  | 4/23/25      | 1330         | W           | 9         | Alkalinity (sm 2320)<br>NTPH-Gx<br>Total Organic Carbon (sm 5310)<br>DTEX EPA 8021<br>NTPH-HCID<br>Salinity (sm 2520)<br>VOCs EPA 8260<br>PCP (sm 8270E-G)<br>PAHs EPA 8270<br>Total Dissolved Solids (sm 2540E-G)<br>PCPs EPA 8082<br>Total Metals (As, Cu, Cd, Fe, Mg, Mn, Ni, Pb, Se, Zn) (6020B)<br>Dissolved Metals (As, Cu, Cd, Fe, Mg, Mn, Ni, Pb, Se, Zn) (6020B)<br>Total As + Cu (6020B)<br>Dissolved As + Cu (6020B)<br>Br, Cl, F, SO4 EPA 300.0 | RUSH TAT |
| 202V1-EFF-042325      | 02A-H  |              | 1335         |             | 8         | X                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RUSH TAT |
| Control-Port 3-042325 | 03A-B  |              | 1525         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |
| 202V1-Port 3-042325   | 04     |              | 1435         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |
| Control-Port 2-042325 | 05     |              | 1545         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |
| 202V1-Port 2-042325   | 06     |              | 1455         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |
| Control-Port 1-042325 | 07     |              | 1555         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |
| 202V1-Port 1-042325   | 08     |              | 1510         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |
| Control-INF-042325    | 09A-I  |              | 1615         |             | 9         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             | RUSH TAT |
| 202V1-INF-042325      | 10A-H  |              | 1625         |             | 8         |                                                                                                                                                                                                                                                                                                                                                                                                                                                             | RUSH TAT |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by: *Emily Rusten*

Relinquished by: *Emily Rusten*

Relinquished by: *Aspect*

Relinquished by: *Aspect*

Received by:

Received by:

Received by:

Received by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Friedman & Bruya, Inc.  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

Samples received at 3:30





# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504386 CLIENT ASP INITIALS/ DATE: 04/23/15 AS

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 3 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/ AP  
\*or other representative documents, letters, and/or shipping memos Date: 4/24/15

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |                                           |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 7, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the additional results from the testing of material submitted on April 23, 2025 from the Glacier Northwest AS230067, F&BI 504386 project. There are 8 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Marc Chalfant  
ASP0507R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 23, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504386 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504386 -01           | Control-EFF-042325       |
| 504386 -02           | 20ZVI-EFF-042325         |
| 504386 -03           | Control-Port 3-042325    |
| 504386 -04           | 20ZVI-Port 3-042325      |
| 504386 -05           | Control- Port 2-042325   |
| 504386 -06           | 20ZVI-Port 2-042325      |
| 504386 -07           | Control-Port 1-042325    |
| 504386 -08           | 20ZVI-Port 1-042325      |
| 504386 -09           | Control-INF-042325       |
| 504386 -10           | 20ZVI-INF-042325         |
| 504386 -11           | 50ZVI-INF-042325         |
| 504386 -12           | INFLUENT-042325          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, Fl, Br) sent to Alliance Technical Group for testing. The report is enclosed.

All quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504386-01 1/5              |
| Date Analyzed:    | 04/29/25           | Data File:  | 042910.D                   |
| Matrix:           | Water              | Instrument: | GCMS12                     |
| Units:            | ug/L (ppb)         | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 85 d        | 10           | 140          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 430                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504386-09 1/25             |
| Date Analyzed:    | 04/30/25           | Data File:  | 043004.D                   |
| Matrix:           | Water              | Instrument: | GCMS9                      |
| Units:            | ug/L (ppb)         | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 174 d       | 22           | 158          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 530                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-INF-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504386-11 1/25             |
| Date Analyzed:    | 04/30/25         | Data File:  | 043005.D                   |
| Matrix:           | Water            | Instrument: | GCMS9                      |
| Units:            | ug/L (ppb)       | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 164 d       | 22           | 158          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 500                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042325 | Client:     | Aspect Consulting          |
| Date Received:    | 04/23/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504386-12 1/25             |
| Date Analyzed:    | 04/30/25        | Data File:  | 043006.D                   |
| Matrix:           | Water           | Instrument: | GCMS9                      |
| Units:            | ug/L (ppb)      | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 180 d       | 22           | 158          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 540                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | 05-1021 mb 1/0.5           |
| Date Analyzed:    | 04/28/25       | Data File:  | 042808.D                   |
| Matrix:           | Water          | Instrument: | GCMS12                     |
| Units:            | ug/L (ppb)     | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 75          | 10           | 140          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | <0.2                        |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/07/25

Date Received: 04/23/25

Project: Glacier Northwest AS230067, F&BI 504386

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E**

Laboratory Code: Laboratory Control Sample

| Analyte           | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-------------------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Pentachlorophenol | ug/L (ppb)         | 10             | 86                         | 100                         | 10-144                 | 15                |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Note: Rush TAT applies to marked samples for Total and Dissolved Metals.

504386

**SAMPLE CHAIN OF CUSTODY**

04/28/25 02/14

Page # 1 of 3

SAMPLERS (signature)  
*Emily Rusten*

PROJECT NAME  
Glacier Northwest

PO #  
AS230067

REMARKS  
Field filtered for dissolved metals.

INVOICE TO  
Please invoice through Coupa

Project specific RLS? - Yes / No

Standard turnaround  
RUSH 24-hr TAT  
Rush charges authorized by:  
AS and Cu rushed 04/28/25 ME/MC

City, State, ZIP Seattle, WA 98104

Phone 206-413-5437 Email Delia.Massengal@geosyntec.com

SAMPLE DISPOSAL  
☐ Archive samples  
☐ Other  
Default: Dispose after 30 days

| Sample ID             | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                                                                                                                                                                                                                                                                                                                                                                                                                                 | Notes                |
|-----------------------|--------|--------------|--------------|-------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Control-EFF-042325    | 01A-I  | 4/23/25      | 1330         | W           | 9         | Alkalinity (sm 2320)<br>NTPH-Gx<br>Total Organic Carbon (sm 5310)<br>DTEX EPA 8021<br>NTPH-HCID<br>Salinity (sm 2520)<br>VOCs EPA 8260<br>PCP (sm 8270E-G)<br>PAHs EPA 8270<br>Total Dissolved Solids (sm 2540E-G)<br>PCB EPA 8082<br>Total Metals (As, Cu, Cd, Fe, Mg, Mn, Ni, Pb, Zn) (6020B)<br>Dissolved Metals (As, Cu, Cd, Fe, Mg, Mn, Ni, Pb, Zn) (6020B)<br>Total As + Cu (6020B)<br>Dissolved As + Cu (6020B)<br>Br, Cl, F, SO4 EPA 300.0 | RUSH TAT<br>RUSH TAT |
| 202V1-EFF-042325      | 02A-H  |              | 1335         |             | 8         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| Control-Port 3-042325 | 03A-B  |              | 1525         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| 202V1-Port 3-042325   | 04     |              | 1435         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| Control-Port 2-042325 | 05     |              | 1545         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| 202V1-Port 2-042325   | 06     |              | 1455         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| Control-Port 1-042325 | 07     |              | 1555         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| 202V1-Port 1-042325   | 08     |              | 1510         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| Control-INF-042325    | 09A-I  |              | 1615         |             | 9         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| 202V1-INF-042325      | 10A-H  |              | 1625         |             | 8         |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman & Bruya, Inc.  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

Relinquished by: *Emily Rusten*

Received by: *Joe Mohammed*

Relinquished by: *Aspect*

Received by: *Aspect*

Samples received at 3:30

Andrew Yonkotski,  
Marc Chai Fung, and

04/288/00 C2/J4

Page # 20

SAMPLES (signature)  
Gundlacker

PROJECT/NAME

PO #

Glacier Northwest

AS230067

Address 710 2nd Ave Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206-413-3407 Email DebraMassey@

REMARKS  
Field Filtered for dissolved  
metals.  
Project specific RLs? - Yes / No

INVOICE TO  
Please Invoice through  
Carpa

**SAMPLE DISPOSAL**

☐ Archive samples

☐ Other \_\_\_\_\_

**Default: Dispose after 30 days**

Default: Dispose after 30 days

[illegible]

**SIGNATURE**

PRINT NAME \_\_\_\_\_

COMPANY

DATE \_\_\_\_\_

TIME

*Friedman & Bruva, Inc.*

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

Received by:

---

DATE OF RECEIPT

20

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504386 CLIENT ASP INITIALS/ DATE: 04/23/15 AS

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 3 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/ Date: AP 4/24/15  
\*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |                                           |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

**Friedman & Bruya**

Michael Erdahl

5500 4th Ave S

Seattle, WA 98108

**RE: 504386,**

**Work Order Number: 2504593**

May 02, 2025

**Attention Michael Erdahl:**

Alliance Technical Group, LLC - Seattle received 6 sample(s) on 4/24/2025 for the analyses presented in the following report.

***Dissolved Metals by EPA 6020B***

***Ion Chromatography by EPA 300.0***

***Salinity by SM 2520B***

***Total Alkalinity by EPA 310.2***

***Total Dissolved Solids by SM 2540C***

***Total Metals by EPA 6020B***

***Total Organic Carbon by SM 5310C***

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,



DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910



Original

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*



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Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

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**CLIENT:** Friedman & Bruya  
**Project:** 504386  
**Work Order:** 2504593

---

## Work Order Sample Summary

| Lab Sample ID | Client Sample ID   | Date/Time Collected | Date/Time Received  |
|---------------|--------------------|---------------------|---------------------|
| 2504593-001   | Control-EFF-042325 | 04/23/2025 1:30 PM  | 04/24/2025 10:47 AM |
| 2504593-002   | 20ZVI-EFF-042325   | 04/23/2025 1:35 PM  | 04/24/2025 10:47 AM |
| 2504593-003   | Control-INF-042325 | 04/23/2025 4:15 PM  | 04/24/2025 10:47 AM |
| 2504593-004   | 20ZVI-INF-042325   | 04/23/2025 4:25 PM  | 04/24/2025 10:47 AM |
| 2504593-005   | 50ZVI-INF-042325   | 04/23/2025 4:20 PM  | 04/24/2025 10:47 AM |
| 2504593-006   | Influent-042325    | 04/23/2025 4:10 PM  | 04/24/2025 10:47 AM |

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



---

**CLIENT:** Friedman & Bruya

**Project:** 504386

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-001

**Collection Date:** 4/23/2025 1:30:00 PM

**Client Sample ID:** Control-EFF-042325

**Matrix:** Water

| Analyses                                      | Result | RL    | Qual | Units           | DF | Date Analyzed         |
|-----------------------------------------------|--------|-------|------|-----------------|----|-----------------------|
| <b><u>Ion Chromatography by EPA 300.0</u></b> |        |       |      | Batch ID: 47493 |    | Analyst: OP           |
| Fluoride                                      | 0.797  | 0.100 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Chloride                                      | 4.70   | 0.200 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Nitrite (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Bromide                                       | ND     | 0.600 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Nitrate (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Ortho-Phosphate (as P)                        | 0.983  | 0.400 | H    | mg/L            | 1  | 4/26/2025 12:51:00 AM |
| Sulfate                                       | 2.92   | 1.00  |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |

|                                             |        |        |   |                 |     |                      |
|---------------------------------------------|--------|--------|---|-----------------|-----|----------------------|
| <b><u>Dissolved Metals by EPA 6020B</u></b> |        |        |   | Batch ID: 47485 |     | Analyst: SS          |
| Calcium                                     | 76,700 | 25,000 | D | µg/L            | 100 | 4/25/2025 1:03:00 PM |
| Magnesium                                   | 14,500 | 50.0   |   | µg/L            | 1   | 4/24/2025 5:47:00 PM |
| Potassium                                   | 3,280  | 50.0   |   | µg/L            | 1   | 4/24/2025 5:47:00 PM |
| Sodium                                      | 16,000 | 250    |   | µg/L            | 1   | 4/24/2025 5:47:00 PM |

|                                         |        |        |   |                 |     |                       |
|-----------------------------------------|--------|--------|---|-----------------|-----|-----------------------|
| <b><u>Total Metals by EPA 6020B</u></b> |        |        |   | Batch ID: 47489 |     | Analyst: SS           |
| Calcium                                 | 76,700 | 25,000 | D | µg/L            | 100 | 4/25/2025 10:32:00 AM |
| Magnesium                               | 14,900 | 50.0   |   | µg/L            | 1   | 4/24/2025 7:22:00 PM  |
| Potassium                               | 3,370  | 50.0   |   | µg/L            | 1   | 4/24/2025 7:22:00 PM  |
| Sodium                                  | 16,400 | 250    |   | µg/L            | 1   | 4/24/2025 7:22:00 PM  |

|                                                |      |       |  |                  |   |                      |
|------------------------------------------------|------|-------|--|------------------|---|----------------------|
| <b><u>Total Organic Carbon by SM 5310C</u></b> |      |       |  | Batch ID: R99356 |   | Analyst: SS          |
| Total Organic Carbon                           | 4.04 | 0.700 |  | mg/L             | 1 | 4/29/2024 7:14:00 PM |

|                                             |     |      |   |                  |    |                      |
|---------------------------------------------|-----|------|---|------------------|----|----------------------|
| <b><u>Total Alkalinity by EPA 310.2</u></b> |     |      |   | Batch ID: R99418 |    | Analyst: NR          |
| Alkalinity, Total (As CaCO <sub>3</sub> )   | 258 | 25.0 | D | mg/L             | 10 | 5/1/2025 12:41:00 PM |

|                                    |    |          |  |                  |   |                      |
|------------------------------------|----|----------|--|------------------|---|----------------------|
| <b><u>Salinity by SM 2520B</u></b> |    |          |  | Batch ID: R99311 |   | Analyst: BB          |
| Salinity                           | ND | 0.000100 |  | %                | 1 | 4/29/2025 9:19:42 AM |

|                                                  |     |      |  |                  |   |                      |
|--------------------------------------------------|-----|------|--|------------------|---|----------------------|
| <b><u>Total Dissolved Solids by SM 2540C</u></b> |     |      |  | Batch ID: R99309 |   | Analyst: BB          |
| Total Dissolved Solids                           | 210 | 5.00 |  | mg/L             | 1 | 4/29/2025 9:16:11 AM |

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-002

**Collection Date:** 4/23/2025 1:35:00 PM

**Client Sample ID:** 20ZVI-EFF-042325

**Matrix:** Water

| Analyses                                         | Result | RL       | Qual | Units            | DF  | Date Analyzed         |
|--------------------------------------------------|--------|----------|------|------------------|-----|-----------------------|
| <b><u>Ion Chromatography by EPA 300.0</u></b>    |        |          |      | Batch ID: 47493  |     | Analyst: OP           |
| Fluoride                                         | 0.145  | 0.100    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Chloride                                         | 5.00   | 0.200    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Nitrite (as N)                                   | ND     | 0.200    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Bromide                                          | ND     | 0.600    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Nitrate (as N)                                   | ND     | 0.200    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Ortho-Phosphate (as P)                           | ND     | 0.400    | H    | mg/L             | 1   | 4/26/2025 1:15:00 AM  |
| Sulfate                                          | 2.78   | 1.00     |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| <b><u>Dissolved Metals by EPA 6020B</u></b>      |        |          |      | Batch ID: 47485  |     | Analyst: SS           |
| Calcium                                          | 83,300 | 25,000   | D    | µg/L             | 100 | 4/25/2025 1:06:00 PM  |
| Magnesium                                        | 9,520  | 50.0     |      | µg/L             | 1   | 4/24/2025 6:00:00 PM  |
| Potassium                                        | 3,830  | 50.0     |      | µg/L             | 1   | 4/24/2025 6:00:00 PM  |
| Sodium                                           | 15,700 | 250      |      | µg/L             | 1   | 4/24/2025 6:00:00 PM  |
| <b><u>Total Metals by EPA 6020B</u></b>          |        |          |      | Batch ID: 47489  |     | Analyst: SS           |
| Calcium                                          | 81,200 | 1,200    | D    | µg/L             | 10  | 4/25/2025 10:35:00 AM |
| Magnesium                                        | 9,730  | 100      |      | µg/L             | 1   | 4/24/2025 7:51:00 PM  |
| Potassium                                        | 3,920  | 100      |      | µg/L             | 1   | 4/24/2025 7:51:00 PM  |
| Sodium                                           | 16,300 | 2,000    | D    | µg/L             | 10  | 4/25/2025 10:35:00 AM |
| <b><u>Total Organic Carbon by SM 5310C</u></b>   |        |          |      | Batch ID: R99356 |     | Analyst: SS           |
| Total Organic Carbon                             | 0.861  | 0.700    |      | mg/L             | 1   | 4/29/2024 7:35:00 PM  |
| <b><u>Total Alkalinity by EPA 310.2</u></b>      |        |          |      | Batch ID: R99418 |     | Analyst: NR           |
| Alkalinity, Total (As CaCO <sub>3</sub> )        | 135    | 25.0     | D    | mg/L             | 10  | 5/1/2025 12:43:00 PM  |
| <b><u>Salinity by SM 2520B</u></b>               |        |          |      | Batch ID: R99311 |     | Analyst: BB           |
| Salinity                                         | ND     | 0.000100 |      | %                | 1   | 4/29/2025 9:19:42 AM  |
| <b><u>Total Dissolved Solids by SM 2540C</u></b> |        |          |      | Batch ID: R99309 |     | Analyst: BB           |
| Total Dissolved Solids                           | 250    | 5.00     |      | mg/L             | 1   | 4/29/2025 9:16:11 AM  |

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-003

**Collection Date:** 4/23/2025 4:15:00 PM

**Client Sample ID:** Control-INF-042325

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47493

Analyst: OP

|                        |       |       |  |      |   |                      |
|------------------------|-------|-------|--|------|---|----------------------|
| Fluoride               | 0.181 | 0.100 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Chloride               | 4.60  | 0.200 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Nitrite (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Bromide                | ND    | 0.600 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Nitrate (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Sulfate                | 3.76  | 1.00  |  | mg/L | 1 | 4/24/2025 7:34:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47485

Analyst: SS

|           |        |        |   |      |     |                      |
|-----------|--------|--------|---|------|-----|----------------------|
| Calcium   | 91,100 | 25,000 | D | µg/L | 100 | 4/25/2025 1:09:00 PM |
| Magnesium | 4,670  | 50.0   |   | µg/L | 1   | 4/24/2025 6:03:00 PM |
| Potassium | 4,090  | 50.0   |   | µg/L | 1   | 4/24/2025 6:03:00 PM |
| Sodium    | 15,600 | 250    |   | µg/L | 1   | 4/24/2025 6:03:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47489

Analyst: SS

|           |        |        |   |      |     |                       |
|-----------|--------|--------|---|------|-----|-----------------------|
| Calcium   | 89,000 | 25,000 | D | µg/L | 100 | 4/25/2025 10:44:00 AM |
| Magnesium | 4,720  | 50.0   |   | µg/L | 1   | 4/24/2025 7:54:00 PM  |
| Potassium | 4,190  | 50.0   |   | µg/L | 1   | 4/24/2025 7:54:00 PM  |
| Sodium    | 15,800 | 250    |   | µg/L | 1   | 4/24/2025 7:54:00 PM  |

**Total Organic Carbon by SM 5310C**

Batch ID: R99356

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 4.74 | 0.700 |  | mg/L | 1 | 4/29/2024 7:56:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 167 | 25.0 | D | mg/L | 10 | 5/1/2025 12:49:00 PM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99311

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 4/29/2025 9:19:42 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 310 | 5.00 |  | mg/L | 1 | 4/29/2025 9:16:11 AM |
|------------------------|-----|------|--|------|---|----------------------|

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-004

**Collection Date:** 4/23/2025 4:25:00 PM

**Client Sample ID:** 20ZVI-INF-042325

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47493

Analyst: OP

|                        |       |       |  |      |   |                      |
|------------------------|-------|-------|--|------|---|----------------------|
| Fluoride               | 0.179 | 0.100 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Chloride               | 4.85  | 0.200 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Nitrite (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Bromide                | ND    | 0.600 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Nitrate (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Sulfate                | 2.09  | 1.00  |  | mg/L | 1 | 4/24/2025 7:57:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47485

Analyst: SS

|           |        |        |   |      |     |                      |
|-----------|--------|--------|---|------|-----|----------------------|
| Calcium   | 89,600 | 25,000 | D | µg/L | 100 | 4/25/2025 1:12:00 PM |
| Magnesium | 4,490  | 50.0   |   | µg/L | 1   | 4/24/2025 6:06:00 PM |
| Potassium | 3,990  | 50.0   |   | µg/L | 1   | 4/24/2025 6:06:00 PM |
| Sodium    | 15,500 | 250    |   | µg/L | 1   | 4/24/2025 6:06:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47489

Analyst: SS

|           |        |        |   |      |     |                       |
|-----------|--------|--------|---|------|-----|-----------------------|
| Calcium   | 96,100 | 25,000 | D | µg/L | 100 | 4/25/2025 10:50:00 AM |
| Magnesium | 4,440  | 50.0   |   | µg/L | 1   | 4/24/2025 7:57:00 PM  |
| Potassium | 3,920  | 50.0   |   | µg/L | 1   | 4/24/2025 7:57:00 PM  |
| Sodium    | 15,100 | 250    |   | µg/L | 1   | 4/24/2025 7:57:00 PM  |

**Total Organic Carbon by SM 5310C**

Batch ID: R99356

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 4.88 | 0.700 |  | mg/L | 1 | 4/29/2024 8:18:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 233 | 25.0 | D | mg/L | 10 | 5/1/2025 12:50:00 PM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99311

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 4/29/2025 9:19:42 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 210 | 5.00 |  | mg/L | 1 | 4/29/2025 9:16:11 AM |
|------------------------|-----|------|--|------|---|----------------------|

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-005

**Collection Date:** 4/23/2025 4:20:00 PM

**Client Sample ID:** 50ZVI-INF-042325

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47493

Analyst: OP

|                        |       |       |  |      |   |                      |
|------------------------|-------|-------|--|------|---|----------------------|
| Fluoride               | 0.171 | 0.100 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Chloride               | 4.69  | 0.200 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Nitrite (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Bromide                | ND    | 0.600 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Nitrate (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Sulfate                | 1.95  | 1.00  |  | mg/L | 1 | 4/24/2025 8:20:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47485

Analyst: SS

|           |        |        |   |      |     |                      |
|-----------|--------|--------|---|------|-----|----------------------|
| Calcium   | 90,800 | 25,000 | D | µg/L | 100 | 4/25/2025 1:15:00 PM |
| Magnesium | 4,390  | 50.0   |   | µg/L | 1   | 4/24/2025 6:16:00 PM |
| Potassium | 3,890  | 50.0   |   | µg/L | 1   | 4/24/2025 6:16:00 PM |
| Sodium    | 15,500 | 250    |   | µg/L | 1   | 4/24/2025 6:16:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47489

Analyst: SS

|           |        |        |   |      |     |                       |
|-----------|--------|--------|---|------|-----|-----------------------|
| Calcium   | 95,300 | 25,000 | D | µg/L | 100 | 4/25/2025 11:03:00 AM |
| Magnesium | 4,500  | 50.0   |   | µg/L | 1   | 4/24/2025 8:00:00 PM  |
| Potassium | 3,960  | 50.0   |   | µg/L | 1   | 4/24/2025 8:00:00 PM  |
| Sodium    | 15,900 | 250    |   | µg/L | 1   | 4/24/2025 8:00:00 PM  |

**Total Organic Carbon by SM 5310C**

Batch ID: R99356

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 4.84 | 0.700 |  | mg/L | 1 | 4/29/2024 8:39:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 192 | 25.0 | D | mg/L | 10 | 5/1/2025 12:52:00 PM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99311

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 4/29/2025 9:19:42 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 230 | 5.00 |  | mg/L | 1 | 4/29/2025 9:16:11 AM |
|------------------------|-----|------|--|------|---|----------------------|

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-006

**Collection Date:** 4/23/2025 4:10:00 PM

**Client Sample ID:** Influent-042325

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47493

Analyst: OP

|                        |       |       |  |      |   |                      |
|------------------------|-------|-------|--|------|---|----------------------|
| Fluoride               | 0.168 | 0.100 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Chloride               | 4.10  | 0.200 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Nitrite (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Bromide                | ND    | 0.600 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Nitrate (as N)         | 0.791 | 0.200 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Sulfate                | 3.00  | 1.00  |  | mg/L | 1 | 4/24/2025 8:43:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47485

Analyst: SS

|           |        |        |   |      |     |                      |
|-----------|--------|--------|---|------|-----|----------------------|
| Calcium   | 97,000 | 25,000 | D | µg/L | 100 | 4/25/2025 1:18:00 PM |
| Magnesium | 4,280  | 50.0   |   | µg/L | 1   | 4/24/2025 6:19:00 PM |
| Potassium | 3,580  | 50.0   |   | µg/L | 1   | 4/24/2025 6:19:00 PM |
| Sodium    | 14,000 | 250    |   | µg/L | 1   | 4/24/2025 6:19:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47489

Analyst: SS

|           |         |        |   |      |     |                       |
|-----------|---------|--------|---|------|-----|-----------------------|
| Calcium   | 102,000 | 25,000 | D | µg/L | 100 | 4/25/2025 11:09:00 AM |
| Magnesium | 4,440   | 50.0   |   | µg/L | 1   | 4/24/2025 8:04:00 PM  |
| Potassium | 3,700   | 50.0   |   | µg/L | 1   | 4/24/2025 8:04:00 PM  |
| Sodium    | 14,400  | 250    |   | µg/L | 1   | 4/24/2025 8:04:00 PM  |

**Total Organic Carbon by SM 5310C**

Batch ID: R99356

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 5.05 | 0.700 |  | mg/L | 1 | 4/29/2024 9:00:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 236 | 25.0 | D | mg/L | 10 | 5/1/2025 12:54:00 PM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99311

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 4/29/2025 9:19:42 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 140 | 5.00 |  | mg/L | 1 | 4/29/2025 9:16:11 AM |
|------------------------|-----|------|--|------|---|----------------------|



**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Alkalinity by EPA 310.2

|                            |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-99418</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/1/2025</b> |             |      | RunNo: <b>99418</b>   |      |  |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>R99418</b> |           |             | Analysis Date: <b>5/1/2025</b> |          |                            |             |      | SeqNo: <b>2070709</b> |      |  |
| Analyte                    | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                              |    |      |  |  |  |  |  |  |  |  |  |
|------------------------------|----|------|--|--|--|--|--|--|--|--|--|
| Alkalinity, Total (As CaCO3) | ND | 2.50 |  |  |  |  |  |  |  |  |  |
|------------------------------|----|------|--|--|--|--|--|--|--|--|--|

|                             |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>LCS-99418</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/1/2025</b> |             |      | RunNo: <b>99418</b>   |      |  |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>R99418</b> |           |             | Analysis Date: <b>5/1/2025</b> |          |                            |             |      | SeqNo: <b>2070710</b> |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                              |      |      |       |   |     |      |     |  |  |  |  |
|------------------------------|------|------|-------|---|-----|------|-----|--|--|--|--|
| Alkalinity, Total (As CaCO3) | 30.3 | 2.50 | 25.00 | 0 | 121 | 79.4 | 136 |  |  |  |  |
|------------------------------|------|------|-------|---|-----|------|-----|--|--|--|--|

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504661-001ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/1/2025</b> |                       |      | RunNo: <b>99418</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99418</b> |           |             | Analysis Date: <b>5/1/2025</b> |          |                            | SeqNo: <b>2070909</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                              |     |      |  |  |  |  |  |       |      |    |   |
|------------------------------|-----|------|--|--|--|--|--|-------|------|----|---|
| Alkalinity, Total (As CaCO3) | 244 | 25.0 |  |  |  |  |  | 250.1 | 2.59 | 20 | D |
|------------------------------|-----|------|--|--|--|--|--|-------|------|----|---|

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

| Sample ID: <b>MB-47493</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/24/2025</b>     |           | RunNo: <b>99268</b>   |      |          |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47493</b> |           |                    |      | Analysis Date: <b>4/24/2025</b> |           | SeqNo: <b>2067476</b> |      |          |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                   | ND     | 0.100                  |           |                    |      |                                 |           |                       |      |          |      |
| Chloride                   | ND     | 0.200                  |           |                    |      |                                 |           |                       |      |          |      |
| Nitrite (as N)             | ND     | 0.200                  |           |                    |      |                                 |           |                       |      |          |      |
| Bromide                    | ND     | 0.600                  |           |                    |      |                                 |           |                       |      |          |      |
| Nitrate (as N)             | ND     | 0.200                  |           |                    |      |                                 |           |                       |      |          |      |
| Ortho-Phosphate (as P)     | ND     | 0.400                  |           |                    |      |                                 |           |                       |      |          |      |
| Sulfate                    | ND     | 1.00                   |           |                    |      |                                 |           |                       |      |          |      |

| Sample ID: <b>LCS-47493</b> |        | SampType: <b>LCS</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/24/2025</b>     |           | RunNo: <b>99268</b>   |      |          |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47493</b> |           |                    |      | Analysis Date: <b>4/24/2025</b> |           | SeqNo: <b>2067477</b> |      |          |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                    | 0.515  | 0.100                  | 0.5000    | 0                  | 103  | 90                              | 110       |                       |      |          |      |
| Chloride                    | 0.742  | 0.200                  | 0.7500    | 0                  | 98.9 | 90                              | 110       |                       |      |          |      |
| Nitrite (as N)              | 0.718  | 0.200                  | 0.7500    | 0                  | 95.7 | 90                              | 110       |                       |      |          |      |
| Bromide                     | 2.47   | 0.600                  | 2.500     | 0                  | 98.8 | 90                              | 110       |                       |      |          |      |
| Nitrate (as N)              | 0.750  | 0.200                  | 0.7500    | 0                  | 100  | 90                              | 110       |                       |      |          |      |
| Ortho-Phosphate (as P)      | 1.30   | 0.400                  | 1.250     | 0                  | 104  | 90                              | 110       |                       |      |          |      |
| Sulfate                     | 3.68   | 1.00                   | 3.750     | 0                  | 98.3 | 90                              | 110       |                       |      |          |      |

| Sample ID: <b>2504577-016BDUP</b> |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/24/2025</b>     |           | RunNo: <b>99268</b>   |      |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47493</b> |           |                    |      | Analysis Date: <b>4/25/2025</b> |           | SeqNo: <b>2067490</b> |      |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                          | ND     | 0.100                  |           |                    |      |                                 |           |                       |      |          |      |
| Chloride                          | 18.9   | 0.200                  |           |                    |      |                                 |           |                       |      |          | E    |
| Nitrite (as N)                    | ND     | 0.200                  |           |                    |      |                                 |           |                       |      |          |      |
| Bromide                           | ND     | 0.600                  |           |                    |      |                                 |           |                       |      |          |      |
| Nitrate (as N)                    | 0.347  | 0.200                  |           |                    |      |                                 |           |                       |      |          |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |                    |      |                                 |           |                       |      |          |      |
| Sulfate                           | 2.63   | 1.00                   |           |                    |      |                                 |           |                       |      |          |      |

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                            |        |                 |           |             |                          |          |                      |             |      |                |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|------|----------------|------|--|
| Sample ID: 2504577-016BDUP |        | SampType: DUP   |           |             | Units: mg/L              |          | Prep Date: 4/24/2025 |             |      | RunNo: 99268   |      |  |
| Client ID: BATCH           |        | Batch ID: 47493 |           |             | Analysis Date: 4/25/2025 |          |                      |             |      | SeqNo: 2067490 |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD | RPDLimit       | Qual |  |

|                                  |        |                        |           |                                 |       |                             |           |             |                       |          |      |
|----------------------------------|--------|------------------------|-----------|---------------------------------|-------|-----------------------------|-----------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504577-016BMS</b> |        | SampType: <b>MS</b>    |           | Units: <b>mg/L</b>              |       | Prep Date: <b>4/24/2025</b> |           |             | RunNo: <b>99268</b>   |          |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47493</b> |           | Analysis Date: <b>4/25/2025</b> |       |                             |           |             | SeqNo: <b>2067491</b> |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val                     | %REC  | LowLimit                    | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                         | 0.559  | 0.100                  | 0.5000    | 0                               | 112   | 80                          | 120       |             |                       |          |      |
| Chloride                         | 19.3   | 0.200                  | 0.7500    | 0                               | 2,570 | 80                          | 120       |             |                       |          | ES   |
| Nitrite (as N)                   | 0.728  | 0.200                  | 0.7500    | 0                               | 97.1  | 80                          | 120       |             |                       |          |      |
| Bromide                          | 2.51   | 0.600                  | 2.500     | 0                               | 100   | 80                          | 120       |             |                       |          |      |
| Nitrate (as N)                   | 1.13   | 0.200                  | 0.7500    | 0                               | 150   | 80                          | 120       |             |                       |          | S    |
| Ortho-Phosphate (as P)           | 1.05   | 0.400                  | 1.250     | 0                               | 83.8  | 80                          | 120       |             |                       |          |      |
| Sulfate                          | 6.63   | 1.00                   | 3.750     | 0                               | 177   | 80                          | 120       |             |                       |          | S    |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

| Sample ID: <b>2504577-016BMSD</b> | SampType: <b>MSD</b>   | Units: <b>mg/L</b>              |           |             |       | Prep Date: <b>4/24/2025</b> |           |             | RunNo: <b>99268</b>   |          |      |
|-----------------------------------|------------------------|---------------------------------|-----------|-------------|-------|-----------------------------|-----------|-------------|-----------------------|----------|------|
| Client ID: <b>BATCH</b>           | Batch ID: <b>47493</b> | Analysis Date: <b>4/25/2025</b> |           |             |       |                             |           |             | SeqNo: <b>2067510</b> |          |      |
| Analyte                           | Result                 | RL                              | SPK value | SPK Ref Val | %REC  | LowLimit                    | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                          | 0.574                  | 0.100                           | 0.5000    | 0           | 115   | 80                          | 120       | 0.5590      | 2.65                  | 20       | ES   |
| Chloride                          | 19.3                   | 0.200                           | 0.7500    | 0           | 2,570 | 80                          | 120       | 19.31       | 0.119                 | 20       |      |
| Nitrite (as N)                    | 0.754                  | 0.200                           | 0.7500    | 0           | 101   | 80                          | 120       | 0.7280      | 3.51                  | 20       |      |
| Bromide                           | 2.59                   | 0.600                           | 2.500     | 0           | 104   | 80                          | 120       | 2.509       | 3.10                  | 20       | S    |
| Nitrate (as N)                    | 1.15                   | 0.200                           | 0.7500    | 0           | 153   | 80                          | 120       | 1.128       | 2.02                  | 20       |      |
| Ortho-Phosphate (as P)            | 1.05                   | 0.400                           | 1.250     | 0           | 83.8  | 80                          | 120       | 1.048       | 0                     | 20       |      |
| Sulfate                           | 6.72                   | 1.00                            | 3.750     | 0           | 179   | 80                          | 120       | 6.630       | 1.27                  | 20       | S    |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                                   |                        |                    |           |             |      |                                 |           |             |      |                       |      |  |
|-----------------------------------|------------------------|--------------------|-----------|-------------|------|---------------------------------|-----------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2504577-017BDUP</b> | SampType: <b>DUP</b>   | Units: <b>mg/L</b> |           |             |      | Prep Date: <b>4/24/2025</b>     |           |             |      | RunNo: <b>99268</b>   |      |  |
| Client ID: <b>BATCH</b>           | Batch ID: <b>47493</b> |                    |           |             |      | Analysis Date: <b>4/25/2025</b> |           |             |      | SeqNo: <b>2067511</b> |      |  |
| Analyte                           | Result                 | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD | RPDLimit              | Qual |  |
| Fluoride                          | ND                     | 0.100              |           |             |      |                                 |           |             |      |                       |      |  |
| Chloride                          | 4.31                   | 0.200              |           |             |      |                                 |           |             |      |                       |      |  |
| Nitrite (as N)                    | ND                     | 0.200              |           |             |      |                                 |           |             |      |                       |      |  |
| Bromide                           | ND                     | 0.600              |           |             |      |                                 |           |             |      |                       |      |  |
| Nitrate (as N)                    | 0.526                  | 0.200              |           |             |      |                                 |           |             |      |                       |      |  |
| Ortho-Phosphate (as P)            | ND                     | 0.400              |           |             |      |                                 |           |             |      |                       |      |  |
| Sulfate                           | 3.62                   | 1.00               |           |             |      |                                 |           |             |      |                       |      |  |

|                                  |        |                        |           |                                 |      |                             |                       |             |                     |          |      |
|----------------------------------|--------|------------------------|-----------|---------------------------------|------|-----------------------------|-----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2504577-017BMS</b> |        | SampType: <b>MS</b>    |           | Units: <b>mg/L</b>              |      | Prep Date: <b>4/24/2025</b> |                       |             | RunNo: <b>99268</b> |          |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47493</b> |           | Analysis Date: <b>4/25/2025</b> |      |                             | SeqNo: <b>2067512</b> |             |                     |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val                     | %REC | LowLimit                    | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Fluoride                         | 0.519  | 0.100                  | 0.5000    | 0                               | 104  | 80                          | 120                   |             |                     |          |      |
| Chloride                         | 5.06   | 0.200                  | 0.7500    | 0                               | 675  | 80                          | 120                   |             |                     |          | S    |
| Nitrite (as N)                   | 0.737  | 0.200                  | 0.7500    | 0                               | 98.3 | 80                          | 120                   |             |                     |          |      |
| Bromide                          | 2.51   | 0.600                  | 2.500     | 0                               | 101  | 80                          | 120                   |             |                     |          |      |
| Nitrate (as N)                   | 1.34   | 0.200                  | 0.7500    | 0                               | 178  | 80                          | 120                   |             |                     |          | S    |
| Ortho-Phosphate (as P)           | 1.10   | 0.400                  | 1.250     | 0                               | 88.2 | 80                          | 120                   |             |                     |          |      |
| Sulfate                          | 7.69   | 1.00                   | 3.750     | 0                               | 205  | 80                          | 120                   |             |                     |          | S    |

**NOTES:**

S - Spike recovery indicates a possible matrix effect.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Salinity by SM 2520B

|                             |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>MB-R99311</b> |        | SampType: <b>MBLK</b>   |           |             | Units: %                        |          | Prep Date: <b>4/29/2025</b> |                       |      | RunNo: <b>99311</b> |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99311</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             | SeqNo: <b>2068530</b> |      |                     |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity ND 0.000100

|                              |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99311</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>µS/cm</b>             |          | Prep Date: <b>4/29/2025</b> |                       |      | RunNo: <b>99311</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99311</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             | SeqNo: <b>2068531</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 992 0.000100 1,000 0 99.2 79.1 119.1

|                                      |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|--------------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504593-001CDUP</b>    |        | SampType: <b>DUP</b>    |           |             | Units: %                        |          | Prep Date: <b>4/29/2025</b> |                       |      | RunNo: <b>99311</b> |      |  |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>R99311</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             | SeqNo: <b>2068533</b> |      |                     |      |  |
| Analyte                              | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity ND 0.000100 0 30

|                                   |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504593-006CDUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: %                        |          | Prep Date: <b>4/29/2025</b> |                       |      | RunNo: <b>99311</b> |      |  |
| Client ID: <b>Influent-042325</b> |        | Batch ID: <b>R99311</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             | SeqNo: <b>2068539</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 0.0100 0.000100 0.01000 0 30

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Dissolved Solids by SM 2540C

|                             |                         |                    |           |                                 |                       |          |           |             |      |          |      |  |
|-----------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>MB-R99309</b> | SampType: <b>MBLK</b>   | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>MBLKW</b>     | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068483</b> |          |           |             |      |          |      |  |
| Analyte                     | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids      | ND                      | 5.00               |           |                                 |                       |          |           |             |      |          |      |  |

|                              |                         |                    |           |                                 |                       |          |           |             |      |          |      |  |
|------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>LCS-R99309</b> | SampType: <b>LCS</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068484</b> |          |           |             |      |          |      |  |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids       | 296                     | 5.00               | 300.0     | 0                               | 98.7                  | 65       | 135       |             |      |          |      |  |

|                                      |                         |                    |           |                                 |                       |          |           |             |      |          |      |  |
|--------------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>2504593-001CDUP</b>    | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>Control-EFF-042325</b> | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068486</b> |          |           |             |      |          |      |  |
| Analyte                              | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids               | 240                     | 5.00               |           |                                 |                       |          |           | 210.0       | 13.3 | 30       |      |  |

|                                   |                         |                    |           |                                 |                       |          |           |             |      |          |      |  |
|-----------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>2504605-001BDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068493</b> |          |           |             |      |          |      |  |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids            | 8,850                   | 5.00               |           |                                 |                       |          |           | 8,320       | 6.17 | 30       |      |  |

|                                   |                         |                    |           |                                |                       |          |           |             |      |          |      |  |
|-----------------------------------|-------------------------|--------------------|-----------|--------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>2504618-001CDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>5/1/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>5/1/2025</b> | SeqNo: <b>2071394</b> |          |           |             |      |          |      |  |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                    | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids            | 80.0                    | 5.00               |           |                                |                       |          |           | 330.0       | 122  | 30       | R    |  |

**NOTES:**

R - High RPD observed.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                         |        |                         |           |             |                                 |          |                             |             |      |                       |      |  |
|-------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB</b>    |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/29/2024</b> |             |      | RunNo: <b>99356</b>   |      |  |
| Client ID: <b>MBLKW</b> |        | Batch ID: <b>R99356</b> |           |             | Analysis Date: <b>4/29/2024</b> |          |                             |             |      | SeqNo: <b>2069423</b> |      |  |
| Analyte                 | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

Total Organic Carbon ND 0.700

|                        |        |                         |           |                    |      |                             |                                 |             |                     |                       |      |
|------------------------|--------|-------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>LCS</b>  |        | SampType: <b>LCS</b>    |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/29/2024</b> |                                 |             | RunNo: <b>99356</b> |                       |      |
| Client ID: <b>LCSW</b> |        | Batch ID: <b>R99356</b> |           |                    |      |                             | Analysis Date: <b>4/29/2024</b> |             |                     | SeqNo: <b>2069424</b> |      |
| Analyte                | Result | RL                      | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |

Total Organic Carbon 21.5 0.700 25.00 0 85.9 79.6 120

|                            |        |                  |           |             |      |                      |                          |             |              |                |      |
|----------------------------|--------|------------------|-----------|-------------|------|----------------------|--------------------------|-------------|--------------|----------------|------|
| Sample ID: 2504605-001DDUP |        | SampType: DUP    |           | Units: mg/L |      | Prep Date: 4/29/2024 |                          |             | RunNo: 99356 |                |      |
| Client ID: BATCH           |        | Batch ID: R99356 |           |             |      |                      | Analysis Date: 4/29/2024 |             |              | SeqNo: 2069434 |      |
| Analyte                    | Result | RL               | SPK value | SPK Ref Val | %REC | LowLimit             | HighLimit                | RPD Ref Val | %RPD         | RPDLimit       | Qual |

Total Organic Carbon 60.8 0.700 60.00 1.27 15

|                                  |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504605-001DMS</b> |        | SampType: <b>MS</b>     |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/29/2024</b> |                       |      | RunNo: <b>99356</b> |      |  |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>R99356</b> |           |             | Analysis Date: <b>4/29/2024</b> |          |                             | SeqNo: <b>2069435</b> |      |                     |      |  |
| Analyte                          | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Total Organic Carbon 81.2 0.700 25.00 60.00 85.0 85 115 S

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

|                                   |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504605-001DMSD</b> |        | SampType: <b>MSD</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/29/2024</b> |                       |      | RunNo: <b>99356</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99356</b> |           |             | Analysis Date: <b>4/29/2024</b> |          |                             | SeqNo: <b>2069436</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Total Organic Carbon 79.9 0.700 25.00 60.00 79.6 85 115 81.24 1.66 15 S

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                                   |        |                         |           |             |                                 |          |                             |                       |       |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|-------|---------------------|------|--|
| Sample ID: <b>2504620-001DDUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/30/2024</b> |                       |       | RunNo: <b>99356</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99356</b> |           |             | Analysis Date: <b>4/30/2024</b> |          |                             | SeqNo: <b>2069447</b> |       |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD  | RPDLimit            | Qual |  |
| Total Organic Carbon              | 9.25   | 0.700                   |           |             |                                 |          |                             | 9.301                 | 0.604 | 15                  |      |  |

|                                  |        |                         |           |             |                                 |          |                             |             |                       |                     |      |  |
|----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>2504620-001DMS</b> |        | SampType: <b>MS</b>     |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/30/2024</b> |             |                       | RunNo: <b>99356</b> |      |  |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>R99356</b> |           |             | Analysis Date: <b>4/30/2024</b> |          |                             |             | SeqNo: <b>2069448</b> |                     |      |  |
| Analyte                          | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |
| Total Organic Carbon             | 28.9   | 0.700                   | 25.00     | 9.301       | 78.6                            | 85       | 115                         |             |                       |                     | S    |  |

**NOTES:**

S - Outlying spike recoveries were associated with this sample.



**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

|                            |        |                        |           |             |                                 |          |                             |             |      |                       |      |  |
|----------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-47485</b> |        | SampType: <b>MBLK</b>  |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             |      | RunNo: <b>99245</b>   |      |  |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47485</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             |      | SeqNo: <b>2066859</b> |      |  |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|           |    |      |  |  |  |  |  |  |  |  |  |
|-----------|----|------|--|--|--|--|--|--|--|--|--|
| Calcium   | ND | 250  |  |  |  |  |  |  |  |  |  |
| Magnesium | ND | 50.0 |  |  |  |  |  |  |  |  |  |
| Potassium | ND | 50.0 |  |  |  |  |  |  |  |  |  |
| Sodium    | ND | 250  |  |  |  |  |  |  |  |  |  |

|                             |        |                        |           |             |                                 |          |                             |             |      |                       |      |  |
|-----------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>LCS-47485</b> |        | SampType: <b>LCS</b>   |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             |      | RunNo: <b>99245</b>   |      |  |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47485</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             |      | SeqNo: <b>2066860</b> |      |  |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|           |       |      |       |   |      |    |     |  |  |  |  |
|-----------|-------|------|-------|---|------|----|-----|--|--|--|--|
| Calcium   | 999   | 250  | 1,000 | 0 | 99.9 | 80 | 120 |  |  |  |  |
| Magnesium | 999   | 50.0 | 1,000 | 0 | 99.9 | 80 | 120 |  |  |  |  |
| Potassium | 1,030 | 50.0 | 1,000 | 0 | 103  | 80 | 120 |  |  |  |  |
| Sodium    | 1,050 | 250  | 1,000 | 0 | 105  | 80 | 120 |  |  |  |  |

|                                      |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |  |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|--|
| Sample ID: <b>2504593-001BDUP</b>    |        | SampType: <b>DUP</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/24/2025</b> |                                 |             | RunNo: <b>99245</b> |                       |      |  |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47485</b> |           |                    |      |                             | Analysis Date: <b>4/24/2025</b> |             |                     | SeqNo: <b>2066862</b> |      |  |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |  |

|           |        |      |  |  |  |  |  |        |        |    |   |
|-----------|--------|------|--|--|--|--|--|--------|--------|----|---|
| Calcium   | 62,800 | 250  |  |  |  |  |  | 62,870 | 0.0524 | 20 | E |
| Magnesium | 14,500 | 50.0 |  |  |  |  |  | 14,530 | 0.0584 | 20 |   |
| Potassium | 3,280  | 50.0 |  |  |  |  |  | 3,284  | 0.103  | 20 |   |
| Sodium    | 15,900 | 250  |  |  |  |  |  | 16,040 | 0.573  | 20 |   |

|                                      |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |  |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|--|
| Sample ID: <b>2504593-001BMS</b>     |        | SampType: <b>MS</b>    |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/24/2025</b> |                                 |             | RunNo: <b>99245</b> |                       |      |  |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47485</b> |           |                    |      |                             | Analysis Date: <b>4/24/2025</b> |             |                     | SeqNo: <b>2066863</b> |      |  |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |  |

|           |        |      |       |        |       |    |     |  |  |  |    |
|-----------|--------|------|-------|--------|-------|----|-----|--|--|--|----|
| Calcium   | 61,900 | 250  | 1,000 | 62,870 | -99.4 | 75 | 125 |  |  |  | ES |
| Magnesium | 15,000 | 50.0 | 1,000 | 14,530 | 49.0  | 75 | 125 |  |  |  | S  |
| Potassium | 4,180  | 50.0 | 1,000 | 3,284  | 89.3  | 75 | 125 |  |  |  |    |

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

|                                      |        |                        |           |             |                                 |          |                             |             |                       |          |      |
|--------------------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504593-001BMS</b>     |        | SampType: <b>MS</b>    |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             | RunNo: <b>99245</b>   |          |      |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47485</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             | SeqNo: <b>2066863</b> |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Sodium                               | 16,500 | 250                    | 1,000     | 16,040      | 44.8                            | 75       | 125                         |             |                       |          | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

| Sample ID: <b>2504593-001BMSD</b>    |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b>              |      | Prep Date: <b>4/24/2025</b> |                       |             | RunNo: <b>99245</b> |          |      |
|--------------------------------------|--------|------------------------|-----------|---------------------------------|------|-----------------------------|-----------------------|-------------|---------------------|----------|------|
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47485</b> |           | Analysis Date: <b>4/24/2025</b> |      |                             | SeqNo: <b>2066864</b> |             |                     |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val                     | %REC | LowLimit                    | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Calcium                              | 61,900 | 250                    | 1,000     | 62,870                          | -101 | 75                          | 125                   | 61,880      | 0.0220              | 20       | ES   |
| Magnesium                            | 15,100 | 50.0                   | 1,000     | 14,530                          | 53.0 | 75                          | 125                   | 15,020      | 0.265               | 20       | S    |
| Potassium                            | 4,170  | 50.0                   | 1,000     | 3,284                           | 88.8 | 75                          | 125                   | 4,177       | 0.116               | 20       |      |
| Sodium                               | 16,500 | 250                    | 1,000     | 16,040                          | 42.2 | 75                          | 125                   | 16,490      | 0.157               | 20       | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Metals by EPA 6020B

|                            |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47489</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/24/2025</b> |                                 |             | RunNo: <b>99248</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47489</b> |           |                    |      |                             | Analysis Date: <b>4/24/2025</b> |             |                     | SeqNo: <b>2067004</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                    | ND     | 250                    |           |                    |      |                             |                                 |             |                     |                       |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Sodium                     | ND     | 250                    |           |                    |      |                             |                                 |             |                     |                       |      |

| Sample ID: <b>LCS-47489</b> | SampType: <b>LCS</b>   | Units: <b>µg/L</b> |           |             |      | Prep Date: <b>4/24/2025</b>     |           |             | RunNo: <b>99248</b>   |          |      |
|-----------------------------|------------------------|--------------------|-----------|-------------|------|---------------------------------|-----------|-------------|-----------------------|----------|------|
| Client ID: <b>LCSW</b>      | Batch ID: <b>47489</b> |                    |           |             |      | Analysis Date: <b>4/24/2025</b> |           |             | SeqNo: <b>2067005</b> |          |      |
| Analyte                     | Result                 | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                     | 1,010                  | 250                | 1,000     | 0           | 101  | 80                              | 120       |             |                       |          |      |
| Magnesium                   | 998                    | 50.0               | 1,000     | 0           | 99.8 | 80                              | 120       |             |                       |          |      |
| Potassium                   | 1,040                  | 50.0               | 1,000     | 0           | 104  | 80                              | 120       |             |                       |          |      |
| Sodium                      | 1,020                  | 250                | 1,000     | 0           | 102  | 80                              | 120       |             |                       |          |      |

|                                      |        |                        |           |                    |      |                                 |           |                       |      |          |      |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>2504593-001AMS</b>     |        | SampType: <b>MS</b>    |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/24/2025</b>     |           | RunNo: <b>99248</b>   |      |          |      |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47489</b> |           |                    |      | Analysis Date: <b>4/24/2025</b> |           | SeqNo: <b>2067007</b> |      |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                              | 65,100 | 250                    | 1,000     | 64,400             | 72.7 | 75                              | 125       |                       |      |          | ES   |
| Magnesium                            | 15,900 | 50.0                   | 1,000     | 14,940             | 92.3 | 75                              | 125       |                       |      |          |      |
| Potassium                            | 4,350  | 50.0                   | 1,000     | 3,371              | 98.3 | 75                              | 125       |                       |      |          |      |
| Sodium                               | 17,400 | 250                    | 1,000     | 16,420             | 99.6 | 75                              | 125       |                       |      |          |      |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                      |        |                        |           |             |                                 |          |                             |             |                       |          |      |
|--------------------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504593-001AMSD</b>    |        | SampType: <b>MSD</b>   |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             | RunNo: <b>99248</b>   |          |      |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47489</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             | SeqNo: <b>2067009</b> |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                              | 65,400 | 250                    | 1,000     | 64,400      | 100                             | 75       | 125                         | 65,130      | 0.422                 | 20       | E    |
| Magnesium                            | 15,900 | 50.0                   | 1,000     | 14,940      | 91.5                            | 75       | 125                         | 15,870      | 0.0528                | 20       |      |

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

**QC SUMMARY REPORT**  
**Total Metals by EPA 6020B**

| Sample ID: <b>2504593-001AMSD</b>    |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/24/2025</b>     |           | RunNo: <b>99248</b>   |       |          |      |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47489</b> |           |                    |      | Analysis Date: <b>4/24/2025</b> |           | SeqNo: <b>2067009</b> |       |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Potassium                            | 4,330  | 50.0                   | 1,000     | 3,371              | 95.7 | 75                              | 125       | 4,354                 | 0.597 | 20       |      |
| Sodium                               | 17,500 | 250                    | 1,000     | 16,420             | 112  | 75                              | 125       | 17,420                | 0.691 | 20       |      |

Client Name: FB

Work Order Number: 2504593

Logged by: Morgan Wilson

Date Received: 4/24/2025 10:47:00 AM

### Chain of Custody

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

### Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

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

|                      |                      |       |                                                                                                                               |
|----------------------|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date: | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |       |                                                                                                                               |
| Client Instructions: | <input type="text"/> |       |                                                                                                                               |

17. Additional remarks:

### Item Information

| Item # | Temp °C |
|--------|---------|
| Sample | 6.0     |

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

2504593

Page 25 of 26

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

TURNAROUND TIME

☒ Standard LAT

~~X~~ Rush 704-488-2464

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

| SIGNATURE                                                                                      | PRINT NAME     | COMPANY          | DATE    | TIME    |
|------------------------------------------------------------------------------------------------|----------------|------------------|---------|---------|
|               | Michael Erdahl | Friedman & Bruya | 4/24/25 | 0746.   |
| Received by:  | Briana Ballard | ATG              | 4/24    | 10:47AM |
| Relinquished by:                                                                               |                |                  |         |         |
| Received by:                                                                                   |                |                  |         |         |



2504593

TURNAROUND TIME

PO#

F-196

Aspect EDD *See R1 table.*

TURNAROUND TIME

☒ Standard LAT

~~X~~ RUSH Total Ass Metals - 24hr

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

ANALYSES PROPOSED

| SIGNATURE                                                                         | PRINT NAME     | COMPANY          | DATE    | TIME    |
|-----------------------------------------------------------------------------------|----------------|------------------|---------|---------|
|  | Michael Erdahl | Friedman & Bruya | 4/24/25 | 0746.   |
|  | Briana Ballard | ATG              | 4/24    | 10:47AM |
| Received by:                                                                      |                |                  |         |         |
| Relinquished by:                                                                  |                |                  |         |         |
| Received by:                                                                      |                |                  |         |         |

*Friedman & Bruya, Inc.*  
3012 16th Avenue West  
Seattle, WA 98119-2039  
Ph. (206) 285-8282  
Fax (206) 283-5044

**Friedman & Bruya**

Michael Erdahl

5500 4th Ave S

Seattle, WA 98108

**RE: 504386,**

**Work Order Number: 2504593**

May 02, 2025

**Attention Michael Erdahl:**

Alliance Technical Group, LLC - Seattle received 6 sample(s) on 4/24/2025 for the analyses presented in the following report.

***Dissolved Metals by EPA 6020B***

***Ion Chromatography by EPA 300.0***

***Salinity by SM 2520B***

***Total Alkalinity by EPA 310.2***

***Total Dissolved Solids by SM 2540C***

***Total Metals by EPA 6020B***

***Total Organic Carbon by SM 5310C***

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,



DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910



Original



Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing*  
*ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing*  
*Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*



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Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

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**CLIENT:** Friedman & Bruya  
**Project:** 504386  
**Work Order:** 2504593

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## Work Order Sample Summary

| Lab Sample ID | Client Sample ID   | Date/Time Collected | Date/Time Received  |
|---------------|--------------------|---------------------|---------------------|
| 2504593-001   | Control-EFF-042325 | 04/23/2025 1:30 PM  | 04/24/2025 10:47 AM |
| 2504593-002   | 20ZVI-EFF-042325   | 04/23/2025 1:35 PM  | 04/24/2025 10:47 AM |
| 2504593-003   | Control-INF-042325 | 04/23/2025 4:15 PM  | 04/24/2025 10:47 AM |
| 2504593-004   | 20ZVI-INF-042325   | 04/23/2025 4:25 PM  | 04/24/2025 10:47 AM |
| 2504593-005   | 50ZVI-INF-042325   | 04/23/2025 4:20 PM  | 04/24/2025 10:47 AM |
| 2504593-006   | Influent-042325    | 04/23/2025 4:10 PM  | 04/24/2025 10:47 AM |

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Friedman & Bruya

**Project:** 504386

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-001

**Collection Date:** 4/23/2025 1:30:00 PM

**Client Sample ID:** Control-EFF-042325

**Matrix:** Water

| Analyses                                      | Result | RL    | Qual | Units           | DF | Date Analyzed         |
|-----------------------------------------------|--------|-------|------|-----------------|----|-----------------------|
| <b><u>Ion Chromatography by EPA 300.0</u></b> |        |       |      | Batch ID: 47493 |    | Analyst: OP           |
| Fluoride                                      | 0.797  | 0.100 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Chloride                                      | 4.70   | 0.200 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Nitrite (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Bromide                                       | ND     | 0.600 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Nitrate (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |
| Ortho-Phosphate (as P)                        | 0.983  | 0.400 | H    | mg/L            | 1  | 4/26/2025 12:51:00 AM |
| Sulfate                                       | 2.92   | 1.00  |      | mg/L            | 1  | 4/24/2025 6:48:00 PM  |

|                                             |        |        |   |                 |     |                      |
|---------------------------------------------|--------|--------|---|-----------------|-----|----------------------|
| <b><u>Dissolved Metals by EPA 6020B</u></b> |        |        |   | Batch ID: 47485 |     | Analyst: SS          |
| Calcium                                     | 76,700 | 25,000 | D | µg/L            | 100 | 4/25/2025 1:03:00 PM |
| Magnesium                                   | 14,500 | 50.0   |   | µg/L            | 1   | 4/24/2025 5:47:00 PM |
| Potassium                                   | 3,280  | 50.0   |   | µg/L            | 1   | 4/24/2025 5:47:00 PM |
| Sodium                                      | 16,000 | 250    |   | µg/L            | 1   | 4/24/2025 5:47:00 PM |

|                                         |        |        |   |                 |     |                       |
|-----------------------------------------|--------|--------|---|-----------------|-----|-----------------------|
| <b><u>Total Metals by EPA 6020B</u></b> |        |        |   | Batch ID: 47489 |     | Analyst: SS           |
| Calcium                                 | 76,700 | 25,000 | D | µg/L            | 100 | 4/25/2025 10:32:00 AM |
| Magnesium                               | 14,900 | 50.0   |   | µg/L            | 1   | 4/24/2025 7:22:00 PM  |
| Potassium                               | 3,370  | 50.0   |   | µg/L            | 1   | 4/24/2025 7:22:00 PM  |
| Sodium                                  | 16,400 | 250    |   | µg/L            | 1   | 4/24/2025 7:22:00 PM  |

|                                                |      |       |  |                  |   |                      |
|------------------------------------------------|------|-------|--|------------------|---|----------------------|
| <b><u>Total Organic Carbon by SM 5310C</u></b> |      |       |  | Batch ID: R99356 |   | Analyst: SS          |
| Total Organic Carbon                           | 4.04 | 0.700 |  | mg/L             | 1 | 4/29/2024 7:14:00 PM |

|                                             |     |      |   |                  |    |                      |
|---------------------------------------------|-----|------|---|------------------|----|----------------------|
| <b><u>Total Alkalinity by EPA 310.2</u></b> |     |      |   | Batch ID: R99418 |    | Analyst: NR          |
| Alkalinity, Total (As CaCO <sub>3</sub> )   | 258 | 25.0 | D | mg/L             | 10 | 5/1/2025 12:41:00 PM |

|                                    |    |          |  |                  |   |                      |
|------------------------------------|----|----------|--|------------------|---|----------------------|
| <b><u>Salinity by SM 2520B</u></b> |    |          |  | Batch ID: R99311 |   | Analyst: BB          |
| Salinity                           | ND | 0.000100 |  | %                | 1 | 4/29/2025 9:19:42 AM |

|                                                  |     |      |  |                  |   |                      |
|--------------------------------------------------|-----|------|--|------------------|---|----------------------|
| <b><u>Total Dissolved Solids by SM 2540C</u></b> |     |      |  | Batch ID: R99309 |   | Analyst: BB          |
| Total Dissolved Solids                           | 210 | 5.00 |  | mg/L             | 1 | 4/29/2025 9:16:11 AM |

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-002

**Collection Date:** 4/23/2025 1:35:00 PM

**Client Sample ID:** 20ZVI-EFF-042325

**Matrix:** Water

| Analyses                                         | Result | RL       | Qual | Units            | DF  | Date Analyzed         |
|--------------------------------------------------|--------|----------|------|------------------|-----|-----------------------|
| <b><u>Ion Chromatography by EPA 300.0</u></b>    |        |          |      | Batch ID: 47493  |     | Analyst: OP           |
| Fluoride                                         | 0.145  | 0.100    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Chloride                                         | 5.00   | 0.200    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Nitrite (as N)                                   | ND     | 0.200    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Bromide                                          | ND     | 0.600    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Nitrate (as N)                                   | ND     | 0.200    |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| Ortho-Phosphate (as P)                           | ND     | 0.400    | H    | mg/L             | 1   | 4/26/2025 1:15:00 AM  |
| Sulfate                                          | 2.78   | 1.00     |      | mg/L             | 1   | 4/24/2025 7:11:00 PM  |
| <b><u>Dissolved Metals by EPA 6020B</u></b>      |        |          |      | Batch ID: 47485  |     | Analyst: SS           |
| Calcium                                          | 83,300 | 25,000   | D    | µg/L             | 100 | 4/25/2025 1:06:00 PM  |
| Magnesium                                        | 9,520  | 50.0     |      | µg/L             | 1   | 4/24/2025 6:00:00 PM  |
| Potassium                                        | 3,830  | 50.0     |      | µg/L             | 1   | 4/24/2025 6:00:00 PM  |
| Sodium                                           | 15,700 | 250      |      | µg/L             | 1   | 4/24/2025 6:00:00 PM  |
| <b><u>Total Metals by EPA 6020B</u></b>          |        |          |      | Batch ID: 47489  |     | Analyst: SS           |
| Calcium                                          | 81,200 | 1,200    | D    | µg/L             | 10  | 4/25/2025 10:35:00 AM |
| Magnesium                                        | 9,730  | 100      |      | µg/L             | 1   | 4/24/2025 7:51:00 PM  |
| Potassium                                        | 3,920  | 100      |      | µg/L             | 1   | 4/24/2025 7:51:00 PM  |
| Sodium                                           | 16,300 | 2,000    | D    | µg/L             | 10  | 4/25/2025 10:35:00 AM |
| <b><u>Total Organic Carbon by SM 5310C</u></b>   |        |          |      | Batch ID: R99356 |     | Analyst: SS           |
| Total Organic Carbon                             | 0.861  | 0.700    |      | mg/L             | 1   | 4/29/2024 7:35:00 PM  |
| <b><u>Total Alkalinity by EPA 310.2</u></b>      |        |          |      | Batch ID: R99418 |     | Analyst: NR           |
| Alkalinity, Total (As CaCO <sub>3</sub> )        | 135    | 25.0     | D    | mg/L             | 10  | 5/1/2025 12:43:00 PM  |
| <b><u>Salinity by SM 2520B</u></b>               |        |          |      | Batch ID: R99311 |     | Analyst: BB           |
| Salinity                                         | ND     | 0.000100 |      | %                | 1   | 4/29/2025 9:19:42 AM  |
| <b><u>Total Dissolved Solids by SM 2540C</u></b> |        |          |      | Batch ID: R99309 |     | Analyst: BB           |
| Total Dissolved Solids                           | 250    | 5.00     |      | mg/L             | 1   | 4/29/2025 9:16:11 AM  |

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-003

**Collection Date:** 4/23/2025 4:15:00 PM

**Client Sample ID:** Control-INF-042325

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47493

Analyst: OP

|                        |       |       |  |      |   |                      |
|------------------------|-------|-------|--|------|---|----------------------|
| Fluoride               | 0.181 | 0.100 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Chloride               | 4.60  | 0.200 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Nitrite (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Bromide                | ND    | 0.600 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Nitrate (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 |  | mg/L | 1 | 4/24/2025 7:34:00 PM |
| Sulfate                | 3.76  | 1.00  |  | mg/L | 1 | 4/24/2025 7:34:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47485

Analyst: SS

|           |        |        |   |      |     |                      |
|-----------|--------|--------|---|------|-----|----------------------|
| Calcium   | 91,100 | 25,000 | D | µg/L | 100 | 4/25/2025 1:09:00 PM |
| Magnesium | 4,670  | 50.0   |   | µg/L | 1   | 4/24/2025 6:03:00 PM |
| Potassium | 4,090  | 50.0   |   | µg/L | 1   | 4/24/2025 6:03:00 PM |
| Sodium    | 15,600 | 250    |   | µg/L | 1   | 4/24/2025 6:03:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47489

Analyst: SS

|           |        |        |   |      |     |                       |
|-----------|--------|--------|---|------|-----|-----------------------|
| Calcium   | 89,000 | 25,000 | D | µg/L | 100 | 4/25/2025 10:44:00 AM |
| Magnesium | 4,720  | 50.0   |   | µg/L | 1   | 4/24/2025 7:54:00 PM  |
| Potassium | 4,190  | 50.0   |   | µg/L | 1   | 4/24/2025 7:54:00 PM  |
| Sodium    | 15,800 | 250    |   | µg/L | 1   | 4/24/2025 7:54:00 PM  |

**Total Organic Carbon by SM 5310C**

Batch ID: R99356

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 4.74 | 0.700 |  | mg/L | 1 | 4/29/2024 7:56:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 167 | 25.0 | D | mg/L | 10 | 5/1/2025 12:49:00 PM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99311

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 4/29/2025 9:19:42 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 310 | 5.00 |  | mg/L | 1 | 4/29/2025 9:16:11 AM |
|------------------------|-----|------|--|------|---|----------------------|

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-004

**Collection Date:** 4/23/2025 4:25:00 PM

**Client Sample ID:** 20ZVI-INF-042325

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47493

Analyst: OP

|                        |       |       |  |      |   |                      |
|------------------------|-------|-------|--|------|---|----------------------|
| Fluoride               | 0.179 | 0.100 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Chloride               | 4.85  | 0.200 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Nitrite (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Bromide                | ND    | 0.600 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Nitrate (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 |  | mg/L | 1 | 4/24/2025 7:57:00 PM |
| Sulfate                | 2.09  | 1.00  |  | mg/L | 1 | 4/24/2025 7:57:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47485

Analyst: SS

|           |        |        |   |      |     |                      |
|-----------|--------|--------|---|------|-----|----------------------|
| Calcium   | 89,600 | 25,000 | D | µg/L | 100 | 4/25/2025 1:12:00 PM |
| Magnesium | 4,490  | 50.0   |   | µg/L | 1   | 4/24/2025 6:06:00 PM |
| Potassium | 3,990  | 50.0   |   | µg/L | 1   | 4/24/2025 6:06:00 PM |
| Sodium    | 15,500 | 250    |   | µg/L | 1   | 4/24/2025 6:06:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47489

Analyst: SS

|           |        |        |   |      |     |                       |
|-----------|--------|--------|---|------|-----|-----------------------|
| Calcium   | 96,100 | 25,000 | D | µg/L | 100 | 4/25/2025 10:50:00 AM |
| Magnesium | 4,440  | 50.0   |   | µg/L | 1   | 4/24/2025 7:57:00 PM  |
| Potassium | 3,920  | 50.0   |   | µg/L | 1   | 4/24/2025 7:57:00 PM  |
| Sodium    | 15,100 | 250    |   | µg/L | 1   | 4/24/2025 7:57:00 PM  |

**Total Organic Carbon by SM 5310C**

Batch ID: R99356

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 4.88 | 0.700 |  | mg/L | 1 | 4/29/2024 8:18:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 233 | 25.0 | D | mg/L | 10 | 5/1/2025 12:50:00 PM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99311

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 4/29/2025 9:19:42 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 210 | 5.00 |  | mg/L | 1 | 4/29/2025 9:16:11 AM |
|------------------------|-----|------|--|------|---|----------------------|



**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-005

**Collection Date:** 4/23/2025 4:20:00 PM

**Client Sample ID:** 50ZVI-INF-042325

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47493

Analyst: OP

|                        |       |       |  |      |   |                      |
|------------------------|-------|-------|--|------|---|----------------------|
| Fluoride               | 0.171 | 0.100 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Chloride               | 4.69  | 0.200 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Nitrite (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Bromide                | ND    | 0.600 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Nitrate (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 |  | mg/L | 1 | 4/24/2025 8:20:00 PM |
| Sulfate                | 1.95  | 1.00  |  | mg/L | 1 | 4/24/2025 8:20:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47485

Analyst: SS

|           |        |        |   |      |     |                      |
|-----------|--------|--------|---|------|-----|----------------------|
| Calcium   | 90,800 | 25,000 | D | µg/L | 100 | 4/25/2025 1:15:00 PM |
| Magnesium | 4,390  | 50.0   |   | µg/L | 1   | 4/24/2025 6:16:00 PM |
| Potassium | 3,890  | 50.0   |   | µg/L | 1   | 4/24/2025 6:16:00 PM |
| Sodium    | 15,500 | 250    |   | µg/L | 1   | 4/24/2025 6:16:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47489

Analyst: SS

|           |        |        |   |      |     |                       |
|-----------|--------|--------|---|------|-----|-----------------------|
| Calcium   | 95,300 | 25,000 | D | µg/L | 100 | 4/25/2025 11:03:00 AM |
| Magnesium | 4,500  | 50.0   |   | µg/L | 1   | 4/24/2025 8:00:00 PM  |
| Potassium | 3,960  | 50.0   |   | µg/L | 1   | 4/24/2025 8:00:00 PM  |
| Sodium    | 15,900 | 250    |   | µg/L | 1   | 4/24/2025 8:00:00 PM  |

**Total Organic Carbon by SM 5310C**

Batch ID: R99356

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 4.84 | 0.700 |  | mg/L | 1 | 4/29/2024 8:39:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 192 | 25.0 | D | mg/L | 10 | 5/1/2025 12:52:00 PM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99311

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 4/29/2025 9:19:42 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 230 | 5.00 |  | mg/L | 1 | 4/29/2025 9:16:11 AM |
|------------------------|-----|------|--|------|---|----------------------|

**CLIENT:** Friedman & Bruya  
**Project:** 504386

**Lab ID:** 2504593-006

**Collection Date:** 4/23/2025 4:10:00 PM

**Client Sample ID:** Influent-042325

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47493

Analyst: OP

|                        |       |       |  |      |   |                      |
|------------------------|-------|-------|--|------|---|----------------------|
| Fluoride               | 0.168 | 0.100 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Chloride               | 4.10  | 0.200 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Nitrite (as N)         | ND    | 0.200 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Bromide                | ND    | 0.600 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Nitrate (as N)         | 0.791 | 0.200 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 |  | mg/L | 1 | 4/24/2025 8:43:00 PM |
| Sulfate                | 3.00  | 1.00  |  | mg/L | 1 | 4/24/2025 8:43:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47485

Analyst: SS

|           |        |        |   |      |     |                      |
|-----------|--------|--------|---|------|-----|----------------------|
| Calcium   | 97,000 | 25,000 | D | µg/L | 100 | 4/25/2025 1:18:00 PM |
| Magnesium | 4,280  | 50.0   |   | µg/L | 1   | 4/24/2025 6:19:00 PM |
| Potassium | 3,580  | 50.0   |   | µg/L | 1   | 4/24/2025 6:19:00 PM |
| Sodium    | 14,000 | 250    |   | µg/L | 1   | 4/24/2025 6:19:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47489

Analyst: SS

|           |         |        |   |      |     |                       |
|-----------|---------|--------|---|------|-----|-----------------------|
| Calcium   | 102,000 | 25,000 | D | µg/L | 100 | 4/25/2025 11:09:00 AM |
| Magnesium | 4,440   | 50.0   |   | µg/L | 1   | 4/24/2025 8:04:00 PM  |
| Potassium | 3,700   | 50.0   |   | µg/L | 1   | 4/24/2025 8:04:00 PM  |
| Sodium    | 14,400  | 250    |   | µg/L | 1   | 4/24/2025 8:04:00 PM  |

**Total Organic Carbon by SM 5310C**

Batch ID: R99356

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 5.05 | 0.700 |  | mg/L | 1 | 4/29/2024 9:00:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 236 | 25.0 | D | mg/L | 10 | 5/1/2025 12:54:00 PM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99311

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 4/29/2025 9:19:42 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 140 | 5.00 |  | mg/L | 1 | 4/29/2025 9:16:11 AM |
|------------------------|-----|------|--|------|---|----------------------|

Work Order: 2504593  
 CLIENT: Friedman & Bruya  
 Project: 504386

## QC SUMMARY REPORT

### Total Alkalinity by EPA 310.2

|                              |                         |                    |           |             |      |                                |           |             |      |                       |      |  |
|------------------------------|-------------------------|--------------------|-----------|-------------|------|--------------------------------|-----------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-99418</b>   | SampType: <b>MBLK</b>   | Units: <b>mg/L</b> |           |             |      | Prep Date: <b>5/1/2025</b>     |           |             |      | RunNo: <b>99418</b>   |      |  |
| Client ID: <b>MBLKW</b>      | Batch ID: <b>R99418</b> |                    |           |             |      | Analysis Date: <b>5/1/2025</b> |           |             |      | SeqNo: <b>2070709</b> |      |  |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD | RPDLimit              | Qual |  |
| Alkalinity, Total (As CaCO3) | ND                      | 2.50               |           |             |      |                                |           |             |      |                       |      |  |

|                              |                         |                    |           |             |      |                                |           |             |      |                       |      |  |
|------------------------------|-------------------------|--------------------|-----------|-------------|------|--------------------------------|-----------|-------------|------|-----------------------|------|--|
| Sample ID: <b>LCS-99418</b>  | SampType: <b>LCS</b>    | Units: <b>mg/L</b> |           |             |      | Prep Date: <b>5/1/2025</b>     |           |             |      | RunNo: <b>99418</b>   |      |  |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R99418</b> |                    |           |             |      | Analysis Date: <b>5/1/2025</b> |           |             |      | SeqNo: <b>2070710</b> |      |  |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD | RPDLimit              | Qual |  |
| Alkalinity, Total (As CaCO3) | 30.3                    | 2.50               | 25.00     | 0           | 121  | 79.4                           | 136       |             |      |                       |      |  |

|                                   |                         |                    |           |             |      |                                |           |             |      |                       |      |  |
|-----------------------------------|-------------------------|--------------------|-----------|-------------|------|--------------------------------|-----------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2504661-001ADUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           |             |      | Prep Date: <b>5/1/2025</b>     |           |             |      | RunNo: <b>99418</b>   |      |  |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99418</b> |                    |           |             |      | Analysis Date: <b>5/1/2025</b> |           |             |      | SeqNo: <b>2070909</b> |      |  |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD | RPDLimit              | Qual |  |
| Alkalinity, Total (As CaCO3)      | 244                     | 25.0               |           |             |      |                                |           | 250.1       | 2.59 | 20                    | D    |  |

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                            |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47493</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/24/2025</b> |                                 |             | RunNo: <b>99268</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47493</b> |           |                    |      |                             | Analysis Date: <b>4/24/2025</b> |             |                     | SeqNo: <b>2067476</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Fluoride                   | ND     | 0.100                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Chloride                   | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Nitrite (as N)             | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Bromide                    | ND     | 0.600                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Nitrate (as N)             | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Ortho-Phosphate (as P)     | ND     | 0.400                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Sulfate                    | ND     | 1.00                   |           |                    |      |                             |                                 |             |                     |                       |      |

|                             |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>LCS-47493</b> |        | SampType: <b>LCS</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/24/2025</b> |                                 |             | RunNo: <b>99268</b> |                       |      |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47493</b> |           |                    |      |                             | Analysis Date: <b>4/24/2025</b> |             |                     | SeqNo: <b>2067477</b> |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Fluoride                    | 0.515  | 0.100                  | 0.5000    | 0                  | 103  | 90                          | 110                             |             |                     |                       |      |
| Chloride                    | 0.742  | 0.200                  | 0.7500    | 0                  | 98.9 | 90                          | 110                             |             |                     |                       |      |
| Nitrite (as N)              | 0.718  | 0.200                  | 0.7500    | 0                  | 95.7 | 90                          | 110                             |             |                     |                       |      |
| Bromide                     | 2.47   | 0.600                  | 2.500     | 0                  | 98.8 | 90                          | 110                             |             |                     |                       |      |
| Nitrate (as N)              | 0.750  | 0.200                  | 0.7500    | 0                  | 100  | 90                          | 110                             |             |                     |                       |      |
| Ortho-Phosphate (as P)      | 1.30   | 0.400                  | 1.250     | 0                  | 104  | 90                          | 110                             |             |                     |                       |      |
| Sulfate                     | 3.68   | 1.00                   | 3.750     | 0                  | 98.3 | 90                          | 110                             |             |                     |                       |      |

|                                   |        |                        |           |                                 |      |                             |                       |             |                     |          |      |
|-----------------------------------|--------|------------------------|-----------|---------------------------------|------|-----------------------------|-----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2504577-016BDUP</b> |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b>              |      | Prep Date: <b>4/24/2025</b> |                       |             | RunNo: <b>99268</b> |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47493</b> |           | Analysis Date: <b>4/25/2025</b> |      |                             | SeqNo: <b>2067490</b> |             |                     |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val                     | %REC | LowLimit                    | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Fluoride                          | ND     | 0.100                  |           |                                 |      |                             |                       |             |                     |          |      |
| Chloride                          | 18.9   | 0.200                  |           |                                 |      |                             |                       |             |                     |          | E    |
| Nitrite (as N)                    | ND     | 0.200                  |           |                                 |      |                             |                       |             |                     |          |      |
| Bromide                           | ND     | 0.600                  |           |                                 |      |                             |                       |             |                     |          |      |
| Nitrate (as N)                    | 0.347  | 0.200                  |           |                                 |      |                             |                       |             |                     |          |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |                                 |      |                             |                       |             |                     |          |      |
| Sulfate                           | 2.63   | 1.00                   |           |                                 |      |                             |                       |             |                     |          |      |

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                            |        |                 |           |             |                          |          |                      |             |      |                |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|------|----------------|------|--|
| Sample ID: 2504577-016BDUP |        | SampType: DUP   |           |             | Units: mg/L              |          | Prep Date: 4/24/2025 |             |      | RunNo: 99268   |      |  |
| Client ID: BATCH           |        | Batch ID: 47493 |           |             | Analysis Date: 4/25/2025 |          |                      |             |      | SeqNo: 2067490 |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD | RPDLimit       | Qual |  |

|                                  |        |                        |           |                                 |       |                             |           |             |                       |          |      |
|----------------------------------|--------|------------------------|-----------|---------------------------------|-------|-----------------------------|-----------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504577-016BMS</b> |        | SampType: <b>MS</b>    |           | Units: <b>mg/L</b>              |       | Prep Date: <b>4/24/2025</b> |           |             | RunNo: <b>99268</b>   |          |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47493</b> |           | Analysis Date: <b>4/25/2025</b> |       |                             |           |             | SeqNo: <b>2067491</b> |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val                     | %REC  | LowLimit                    | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                         | 0.559  | 0.100                  | 0.5000    | 0                               | 112   | 80                          | 120       |             |                       |          |      |
| Chloride                         | 19.3   | 0.200                  | 0.7500    | 0                               | 2,570 | 80                          | 120       |             |                       |          | ES   |
| Nitrite (as N)                   | 0.728  | 0.200                  | 0.7500    | 0                               | 97.1  | 80                          | 120       |             |                       |          |      |
| Bromide                          | 2.51   | 0.600                  | 2.500     | 0                               | 100   | 80                          | 120       |             |                       |          |      |
| Nitrate (as N)                   | 1.13   | 0.200                  | 0.7500    | 0                               | 150   | 80                          | 120       |             |                       |          | S    |
| Ortho-Phosphate (as P)           | 1.05   | 0.400                  | 1.250     | 0                               | 83.8  | 80                          | 120       |             |                       |          |      |
| Sulfate                          | 6.63   | 1.00                   | 3.750     | 0                               | 177   | 80                          | 120       |             |                       |          | S    |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

| Sample ID: <b>2504577-016BMSD</b> | SampType: <b>MSD</b>   | Units: <b>mg/L</b>              |           |             |       | Prep Date: <b>4/24/2025</b> |           |             | RunNo: <b>99268</b>   |          |      |
|-----------------------------------|------------------------|---------------------------------|-----------|-------------|-------|-----------------------------|-----------|-------------|-----------------------|----------|------|
| Client ID: <b>BATCH</b>           | Batch ID: <b>47493</b> | Analysis Date: <b>4/25/2025</b> |           |             |       |                             |           |             | SeqNo: <b>2067510</b> |          |      |
| Analyte                           | Result                 | RL                              | SPK value | SPK Ref Val | %REC  | LowLimit                    | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                          | 0.574                  | 0.100                           | 0.5000    | 0           | 115   | 80                          | 120       | 0.5590      | 2.65                  | 20       | ES   |
| Chloride                          | 19.3                   | 0.200                           | 0.7500    | 0           | 2,570 | 80                          | 120       | 19.31       | 0.119                 | 20       |      |
| Nitrite (as N)                    | 0.754                  | 0.200                           | 0.7500    | 0           | 101   | 80                          | 120       | 0.7280      | 3.51                  | 20       |      |
| Bromide                           | 2.59                   | 0.600                           | 2.500     | 0           | 104   | 80                          | 120       | 2.509       | 3.10                  | 20       | S    |
| Nitrate (as N)                    | 1.15                   | 0.200                           | 0.7500    | 0           | 153   | 80                          | 120       | 1.128       | 2.02                  | 20       |      |
| Ortho-Phosphate (as P)            | 1.05                   | 0.400                           | 1.250     | 0           | 83.8  | 80                          | 120       | 1.048       | 0                     | 20       |      |
| Sulfate                           | 6.72                   | 1.00                            | 3.750     | 0           | 179   | 80                          | 120       | 6.630       | 1.27                  | 20       | S    |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

| Sample ID: <b>2504577-017BDUP</b> |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/24/2025</b>     |           | RunNo: <b>99268</b>   |      |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47493</b> |           |                    |      | Analysis Date: <b>4/25/2025</b> |           | SeqNo: <b>2067511</b> |      |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                          | ND     | 0.100                  |           |                    |      |                                 |           |                       |      |          |      |
| Chloride                          | 4.31   | 0.200                  |           |                    |      |                                 |           |                       |      |          |      |
| Nitrite (as N)                    | ND     | 0.200                  |           |                    |      |                                 |           |                       |      |          |      |
| Bromide                           | ND     | 0.600                  |           |                    |      |                                 |           |                       |      |          |      |
| Nitrate (as N)                    | 0.526  | 0.200                  |           |                    |      |                                 |           |                       |      |          |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |                    |      |                                 |           |                       |      |          |      |
| Sulfate                           | 3.62   | 1.00                   |           |                    |      |                                 |           |                       |      |          |      |

| Sample ID: <b>2504577-017BMS</b> |        | SampType: <b>MS</b>    |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/24/2025</b>     |           | RunNo: <b>99268</b>   |      |          |      |
|----------------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47493</b> |           |                    |      | Analysis Date: <b>4/25/2025</b> |           | SeqNo: <b>2067512</b> |      |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                         | 0.519  | 0.100                  | 0.5000    | 0                  | 104  | 80                              | 120       |                       |      |          |      |
| Chloride                         | 5.06   | 0.200                  | 0.7500    | 0                  | 675  | 80                              | 120       |                       |      |          | S    |
| Nitrite (as N)                   | 0.737  | 0.200                  | 0.7500    | 0                  | 98.3 | 80                              | 120       |                       |      |          |      |
| Bromide                          | 2.51   | 0.600                  | 2.500     | 0                  | 101  | 80                              | 120       |                       |      |          |      |
| Nitrate (as N)                   | 1.34   | 0.200                  | 0.7500    | 0                  | 178  | 80                              | 120       |                       |      |          | S    |
| Ortho-Phosphate (as P)           | 1.10   | 0.400                  | 1.250     | 0                  | 88.2 | 80                              | 120       |                       |      |          |      |
| Sulfate                          | 7.69   | 1.00                   | 3.750     | 0                  | 205  | 80                              | 120       |                       |      |          | S    |

**NOTES:**

S - Spike recovery indicates a possible matrix effect.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Salinity by SM 2520B

|                             |        |                         |           |             |          |          |                             |                                 |      |                     |                       |  |
|-----------------------------|--------|-------------------------|-----------|-------------|----------|----------|-----------------------------|---------------------------------|------|---------------------|-----------------------|--|
| Sample ID: <b>MB-R99311</b> |        | SampType: <b>MBLK</b>   |           |             | Units: % |          | Prep Date: <b>4/29/2025</b> |                                 |      | RunNo: <b>99311</b> |                       |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99311</b> |           |             |          |          |                             | Analysis Date: <b>4/29/2025</b> |      |                     | SeqNo: <b>2068530</b> |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC     | LowLimit | HighLimit                   | RPD Ref Val                     | %RPD | RPDLimit            | Qual                  |  |

Salinity ND 0.000100

|                              |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99311</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>µS/cm</b>             |          | Prep Date: <b>4/29/2025</b> |                       |      | RunNo: <b>99311</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99311</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             | SeqNo: <b>2068531</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 992 0.000100 1,000 0 99.2 79.1 119.1

|                                      |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|--------------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504593-001CDUP</b>    |        | SampType: <b>DUP</b>    |           |             | Units: %                        |          | Prep Date: <b>4/29/2025</b> |                       |      | RunNo: <b>99311</b> |      |  |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>R99311</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             | SeqNo: <b>2068533</b> |      |                     |      |  |
| Analyte                              | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity ND 0.000100 0 30

|                                   |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504593-006CDUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: %                        |          | Prep Date: <b>4/29/2025</b> |                       |      | RunNo: <b>99311</b> |      |  |
| Client ID: <b>Influent-042325</b> |        | Batch ID: <b>R99311</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             | SeqNo: <b>2068539</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 0.0100 0.000100 0.01000 0 30

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Dissolved Solids by SM 2540C

|                             |                         |                    |           |                                 |                       |          |           |             |      |          |      |  |
|-----------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>MB-R99309</b> | SampType: <b>MBLK</b>   | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>MBLKW</b>     | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068483</b> |          |           |             |      |          |      |  |
| Analyte                     | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids      | ND                      | 5.00               |           |                                 |                       |          |           |             |      |          |      |  |

|                              |                         |                    |           |                                 |                       |          |           |             |      |          |      |  |
|------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>LCS-R99309</b> | SampType: <b>LCS</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068484</b> |          |           |             |      |          |      |  |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids       | 296                     | 5.00               | 300.0     | 0                               | 98.7                  | 65       | 135       |             |      |          |      |  |

|                                      |                         |                    |           |                                 |                       |          |           |             |      |          |      |  |
|--------------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>2504593-001CDUP</b>    | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>Control-EFF-042325</b> | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068486</b> |          |           |             |      |          |      |  |
| Analyte                              | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids               | 240                     | 5.00               |           |                                 |                       |          |           | 210.0       | 13.3 | 30       |      |  |

|                                   |                         |                    |           |                                 |                       |          |           |             |      |          |      |  |
|-----------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>2504605-001BDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068493</b> |          |           |             |      |          |      |  |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids            | 8,850                   | 5.00               |           |                                 |                       |          |           | 8,320       | 6.17 | 30       |      |  |

|                                   |                         |                    |           |                                |                       |          |           |             |      |          |      |  |
|-----------------------------------|-------------------------|--------------------|-----------|--------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>2504618-001CDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>5/1/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |  |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>5/1/2025</b> | SeqNo: <b>2071394</b> |          |           |             |      |          |      |  |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                    | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Total Dissolved Solids            | 80.0                    | 5.00               |           |                                |                       |          |           | 330.0       | 122  | 30       | R    |  |

**NOTES:**

R - High RPD observed.



**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                         |        |                         |           |             |                                 |          |                             |             |                       |                     |      |  |
|-------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>MB</b>    |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/29/2024</b> |             |                       | RunNo: <b>99356</b> |      |  |
| Client ID: <b>MBLKW</b> |        | Batch ID: <b>R99356</b> |           |             | Analysis Date: <b>4/29/2024</b> |          |                             |             | SeqNo: <b>2069423</b> |                     |      |  |
| Analyte                 | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |

Total Organic Carbon ND 0.700

|                        |        |                         |           |             |                                 |          |                             |             |                       |                     |      |  |
|------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>LCS</b>  |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/29/2024</b> |             |                       | RunNo: <b>99356</b> |      |  |
| Client ID: <b>LCSW</b> |        | Batch ID: <b>R99356</b> |           |             | Analysis Date: <b>4/29/2024</b> |          |                             |             | SeqNo: <b>2069424</b> |                     |      |  |
| Analyte                | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |

Total Organic Carbon 21.5 0.700 25.00 0 85.9 79.6 120

|                                   |        |                         |           |                    |      |                             |                                 |             |                     |                       |      |
|-----------------------------------|--------|-------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2504605-001DDUP</b> |        | SampType: <b>DUP</b>    |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/29/2024</b> |                                 |             | RunNo: <b>99356</b> |                       |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99356</b> |           |                    |      |                             | Analysis Date: <b>4/29/2024</b> |             |                     | SeqNo: <b>2069434</b> |      |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |

Total Organic Carbon 60.8 0.700 60.00 1.27 15

|                                  |        |                         |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------------|--------|-------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2504605-001DMS</b> |        | SampType: <b>MS</b>     |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/29/2024</b> |                                 |             | RunNo: <b>99356</b> |                       |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>R99356</b> |           |                    |      |                             | Analysis Date: <b>4/29/2024</b> |             |                     | SeqNo: <b>2069435</b> |      |
| Analyte                          | Result | RL                      | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |

Total Organic Carbon 81.2 0.700 25.00 60.00 85.0 85 115 S

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

|                                   |        |                         |           |             |                                 |          |                             |             |                       |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>2504605-001DMSD</b> |        | SampType: <b>MSD</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/29/2024</b> |             |                       | RunNo: <b>99356</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99356</b> |           |             | Analysis Date: <b>4/29/2024</b> |          |                             |             | SeqNo: <b>2069436</b> |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |

Total Organic Carbon 79.9 0.700 25.00 60.00 79.6 85 115 81.24 1.66 15 S

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                            |        |                  |           |             |      |                      |                          |             |              |                |      |
|----------------------------|--------|------------------|-----------|-------------|------|----------------------|--------------------------|-------------|--------------|----------------|------|
| Sample ID: 2504620-001DDUP |        | SampType: DUP    |           | Units: mg/L |      | Prep Date: 4/30/2024 |                          |             | RunNo: 99356 |                |      |
| Client ID: BATCH           |        | Batch ID: R99356 |           |             |      |                      | Analysis Date: 4/30/2024 |             |              | SeqNo: 2069447 |      |
| Analyte                    | Result | RL               | SPK value | SPK Ref Val | %REC | LowLimit             | HighLimit                | RPD Ref Val | %RPD         | RPDLimit       | Qual |
| Total Organic Carbon       | 9.25   | 0.700            |           |             |      |                      |                          | 9.301       | 0.604        | 15             |      |

|                                  |        |                         |           |                    |      |                                 |           |                       |      |          |      |
|----------------------------------|--------|-------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>2504620-001DMS</b> |        | SampType: <b>MS</b>     |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/30/2024</b>     |           | RunNo: <b>99356</b>   |      |          |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>R99356</b> |           |                    |      | Analysis Date: <b>4/30/2024</b> |           | SeqNo: <b>2069448</b> |      |          |      |
| Analyte                          | Result | RL                      | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Total Organic Carbon             | 28.9   | 0.700                   | 25.00     | 9.301              | 78.6 | 85                              | 115       |                       |      |          | S    |

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

|                            |        |                        |           |             |                                 |          |                             |             |      |                       |      |  |
|----------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-47485</b> |        | SampType: <b>MBLK</b>  |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             |      | RunNo: <b>99245</b>   |      |  |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47485</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             |      | SeqNo: <b>2066859</b> |      |  |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|           |    |      |
|-----------|----|------|
| Calcium   | ND | 250  |
| Magnesium | ND | 50.0 |
| Potassium | ND | 50.0 |
| Sodium    | ND | 250  |

|                             |        |                        |           |             |                                 |          |                             |             |      |                       |      |  |
|-----------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>LCS-47485</b> |        | SampType: <b>LCS</b>   |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             |      | RunNo: <b>99245</b>   |      |  |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47485</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             |      | SeqNo: <b>2066860</b> |      |  |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|           |       |      |       |   |      |    |     |
|-----------|-------|------|-------|---|------|----|-----|
| Calcium   | 999   | 250  | 1,000 | 0 | 99.9 | 80 | 120 |
| Magnesium | 999   | 50.0 | 1,000 | 0 | 99.9 | 80 | 120 |
| Potassium | 1,030 | 50.0 | 1,000 | 0 | 103  | 80 | 120 |
| Sodium    | 1,050 | 250  | 1,000 | 0 | 105  | 80 | 120 |

|                               |        |                 |           |             |      |                      |                          |             |              |                |      |  |
|-------------------------------|--------|-----------------|-----------|-------------|------|----------------------|--------------------------|-------------|--------------|----------------|------|--|
| Sample ID: 2504593-001BDUP    |        | SampType: DUP   |           | Units: µg/L |      | Prep Date: 4/24/2025 |                          |             | RunNo: 99245 |                |      |  |
| Client ID: Control-EFF-042325 |        | Batch ID: 47485 |           |             |      |                      | Analysis Date: 4/24/2025 |             |              | SeqNo: 2066862 |      |  |
| Analyte                       | Result | RL              | SPK value | SPK Ref Val | %REC | LowLimit             | HighLimit                | RPD Ref Val | %RPD         | RPDLimit       | Qual |  |

|           |        |      |  |  |  |  |  |        |        |    |   |
|-----------|--------|------|--|--|--|--|--|--------|--------|----|---|
| Calcium   | 62,800 | 250  |  |  |  |  |  | 62,870 | 0.0524 | 20 | E |
| Magnesium | 14,500 | 50.0 |  |  |  |  |  | 14,530 | 0.0584 | 20 |   |
| Potassium | 3,280  | 50.0 |  |  |  |  |  | 3,284  | 0.103  | 20 |   |
| Sodium    | 15,900 | 250  |  |  |  |  |  | 16,040 | 0.573  | 20 |   |

|                                      |        |                        |           |             |                                 |          |                             |             |      |                       |      |  |
|--------------------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2504593-001BMS</b>     |        | SampType: <b>MS</b>    |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             |      | RunNo: <b>99245</b>   |      |  |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47485</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             |      | SeqNo: <b>2066863</b> |      |  |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|           |        |      |       |        |       |    |     |  |  |  |    |
|-----------|--------|------|-------|--------|-------|----|-----|--|--|--|----|
| Calcium   | 61,900 | 250  | 1,000 | 62,870 | -99.4 | 75 | 125 |  |  |  | ES |
| Magnesium | 15,000 | 50.0 | 1,000 | 14,530 | 49.0  | 75 | 125 |  |  |  | S  |
| Potassium | 4,180  | 50.0 | 1,000 | 3,284  | 89.3  | 75 | 125 |  |  |  |    |

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

|                                      |        |                        |           |             |                                 |          |                             |             |                       |          |      |
|--------------------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504593-001BMS</b>     |        | SampType: <b>MS</b>    |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             | RunNo: <b>99245</b>   |          |      |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47485</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             | SeqNo: <b>2066863</b> |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Sodium                               | 16,500 | 250                    | 1,000     | 16,040      | 44.8                            | 75       | 125                         |             |                       |          | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

| Sample ID: <b>2504593-001BMSD</b>    |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b>              |      | Prep Date: <b>4/24/2025</b> |                       |             | RunNo: <b>99245</b> |          |      |
|--------------------------------------|--------|------------------------|-----------|---------------------------------|------|-----------------------------|-----------------------|-------------|---------------------|----------|------|
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47485</b> |           | Analysis Date: <b>4/24/2025</b> |      |                             | SeqNo: <b>2066864</b> |             |                     |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val                     | %REC | LowLimit                    | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Calcium                              | 61,900 | 250                    | 1,000     | 62,870                          | -101 | 75                          | 125                   | 61,880      | 0.0220              | 20       | ES   |
| Magnesium                            | 15,100 | 50.0                   | 1,000     | 14,530                          | 53.0 | 75                          | 125                   | 15,020      | 0.265               | 20       | S    |
| Potassium                            | 4,170  | 50.0                   | 1,000     | 3,284                           | 88.8 | 75                          | 125                   | 4,177       | 0.116               | 20       |      |
| Sodium                               | 16,500 | 250                    | 1,000     | 16,040                          | 42.2 | 75                          | 125                   | 16,490      | 0.157               | 20       | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

## QC SUMMARY REPORT

### Total Metals by EPA 6020B

|                            |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47489</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/24/2025</b> |                                 |             | RunNo: <b>99248</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47489</b> |           |                    |      |                             | Analysis Date: <b>4/24/2025</b> |             |                     | SeqNo: <b>2067004</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                    | ND     | 250                    |           |                    |      |                             |                                 |             |                     |                       |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Sodium                     | ND     | 250                    |           |                    |      |                             |                                 |             |                     |                       |      |

| Sample ID: <b>LCS-47489</b> | SampType: <b>LCS</b>   | Units: <b>µg/L</b> |           |             | Prep Date: <b>4/24/2025</b>     |          |           | RunNo: <b>99248</b>   |      |          |      |
|-----------------------------|------------------------|--------------------|-----------|-------------|---------------------------------|----------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      | Batch ID: <b>47489</b> |                    |           |             | Analysis Date: <b>4/24/2025</b> |          |           | SeqNo: <b>2067005</b> |      |          |      |
| Analyte                     | Result                 | RL                 | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                     | 1,010                  | 250                | 1,000     | 0           | 101                             | 80       | 120       |                       |      |          |      |
| Magnesium                   | 998                    | 50.0               | 1,000     | 0           | 99.8                            | 80       | 120       |                       |      |          |      |
| Potassium                   | 1,040                  | 50.0               | 1,000     | 0           | 104                             | 80       | 120       |                       |      |          |      |
| Sodium                      | 1,020                  | 250                | 1,000     | 0           | 102                             | 80       | 120       |                       |      |          |      |

|                                      |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2504593-001AMS</b>     |        | SampType: <b>MS</b>    |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/24/2025</b> |                                 |             | RunNo: <b>99248</b> |                       |      |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47489</b> |           |                    |      |                             | Analysis Date: <b>4/24/2025</b> |             |                     | SeqNo: <b>2067007</b> |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                              | 65,100 | 250                    | 1,000     | 64,400             | 72.7 | 75                          | 125                             |             |                     |                       | ES   |
| Magnesium                            | 15,900 | 50.0                   | 1,000     | 14,940             | 92.3 | 75                          | 125                             |             |                     |                       |      |
| Potassium                            | 4,350  | 50.0                   | 1,000     | 3,371              | 98.3 | 75                          | 125                             |             |                     |                       |      |
| Sodium                               | 17,400 | 250                    | 1,000     | 16,420             | 99.6 | 75                          | 125                             |             |                     |                       |      |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                      |        |                        |           |             |                                 |          |                             |             |                       |          |      |
|--------------------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504593-001AMSD</b>    |        | SampType: <b>MSD</b>   |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/24/2025</b> |             | RunNo: <b>99248</b>   |          |      |
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47489</b> |           |             | Analysis Date: <b>4/24/2025</b> |          |                             |             | SeqNo: <b>2067009</b> |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                              | 65,400 | 250                    | 1,000     | 64,400      | 100                             | 75       | 125                         | 65,130      | 0.422                 | 20       | E    |
| Magnesium                            | 15,900 | 50.0                   | 1,000     | 14,940      | 91.5                            | 75       | 125                         | 15,870      | 0.0528                | 20       |      |

**Work Order:** 2504593  
**CLIENT:** Friedman & Bruya  
**Project:** 504386

**QC SUMMARY REPORT**  
**Total Metals by EPA 6020B**

| Sample ID: <b>2504593-001AMSD</b>    |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/24/2025</b>     |           | RunNo: <b>99248</b>   |       |          |      |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>Control-EFF-042325</b> |        | Batch ID: <b>47489</b> |           |                    |      | Analysis Date: <b>4/24/2025</b> |           | SeqNo: <b>2067009</b> |       |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Potassium                            | 4,330  | 50.0                   | 1,000     | 3,371              | 95.7 | 75                              | 125       | 4,354                 | 0.597 | 20       |      |
| Sodium                               | 17,500 | 250                    | 1,000     | 16,420             | 112  | 75                              | 125       | 17,420                | 0.691 | 20       |      |

Client Name: FB

Work Order Number: 2504593

Logged by: Morgan Wilson

Date Received: 4/24/2025 10:47:00 AM

### Chain of Custody

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

### Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

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

|                      |                      |       |                                                                                                                               |
|----------------------|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date: | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |       |                                                                                                                               |
| Client Instructions: | <input type="text"/> |       |                                                                                                                               |

17. Additional remarks:

### Item Information

| Item # | Temp °C |
|--------|---------|
| Sample | 6.0     |

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

2504593

Page 25 of 26

Will call with instructions



2504593

TURNAROUND TIME

PO#

F-196

Aspect EDD *See R1 table.*

**TURNAROUND TIME**

☒ Standard LAT  
~~RUSH~~ Total days until results - 24 hr

Rush charges authorized by: \_\_\_\_\_

**SAMPLE DISPOSAL**

Dispose after 30 days

Return samples

Will call with instructions

ANALYSES PROPOSED

| SIGNATURE                                                                         | PRINT NAME     | COMPANY          | DATE    | TIME    |
|-----------------------------------------------------------------------------------|----------------|------------------|---------|---------|
|  | Michael Erdahl | Friedman & Bruya | 4/24/25 | 0746.   |
|  | Briana Ballard | ATG              | 4/24    | 10:47AM |
| Received by:                                                                      |                |                  |         |         |
| Relinquished by:                                                                  |                |                  |         |         |
| Received by:                                                                      |                |                  |         |         |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 1, 2025

Andrew Yonkofski, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on April 24, 2025 from the Glacier NW AS230067, F&BI 504411 project. There are 26 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Deli Massey, Marc Chalfant  
ASP0501R.DOC

## FRIEDMAN & BRUYA, INC.

### ENVIRONMENTAL CHEMISTS

#### CASE NARRATIVE

This case narrative encompasses samples received on April 24, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier NW AS230067, F&BI 504411 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504411 -01           | Control-EFF-042425       |
| 504411 -02           | 20ZVI-Port3-042425       |
| 504411 -03           | 20ZVI-Port2-042425       |
| 504411 -04           | 20ZVI-Port1-042425       |
| 504411 -05           | 20ZVI-EFF-042425         |
| 504411 -06           | 20ZVI-INF-042425         |
| 504411 -07           | Control-Port3-042425     |
| 504411 -08           | Control-Port2-042425     |
| 504411 -09           | Control-Port1-042425     |
| 504411 -10           | Control-INF-042425       |
| 504411 -11           | 50ZVI-EFF-042425         |
| 504411 -12           | 50ZVI-Port3-042425       |
| 504411 -13           | 50ZVI-Port2-042425       |
| 504411 -14           | 50ZVI-Port1-042425       |
| 504411 -15           | 50ZVI-INF-042425         |
| 504411 -16           | Influent-042425          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, F, Br) were sent to Alliance Technical Group for testing. The report will be forwarded upon receipt.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 20ZVI-Port3-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-02 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-02 x5.288    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 5.8 |
|---------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 20ZVI-Port3-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-02 x100      |
| Date Analyzed:    | 04/30/25           | Data File:  | 504411-02 x100.161  |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 260 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 20ZVI-Port2-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-03 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-03 x5.289    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 16 |
|---------|----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 20ZVI-Port2-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-03 x20       |
| Date Analyzed:    | 04/30/25           | Data File:  | 504411-03 x20.162   |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |    |
|--------|----|
| Copper | 88 |
|--------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 20ZVI-Port1-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-04 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-04 x5.290    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 47 |
| Copper  | 11 |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                     |
|-------------------|----------------------|-------------|---------------------|
| Client Sample ID: | Control-Port3-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25             | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504411-07 x5        |
| Date Analyzed:    | 04/29/25             | Data File:  | 504411-07 x5.291    |
| Matrix:           | Water                | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)           | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
| Copper  | 22  |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                     |
|-------------------|----------------------|-------------|---------------------|
| Client Sample ID: | Control-Port2-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25             | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504411-08 x5        |
| Date Analyzed:    | 04/29/25             | Data File:  | 504411-08 x5.292    |
| Matrix:           | Water                | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)           | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 320 |
| Copper  | 4.5 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                     |
|-------------------|----------------------|-------------|---------------------|
| Client Sample ID: | Control-Port1-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25             | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504411-09 x5        |
| Date Analyzed:    | 04/29/25             | Data File:  | 504411-09 x5.293    |
| Matrix:           | Water                | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)           | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 360 |
| Copper  | 3.2 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 50ZVI-Port3-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-12 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-12 x5.294    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 3.1 |
| Copper  | 90  |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 50ZVI-Port2-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-13 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-13 x5.295    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 50ZVI-Port1-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-14 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-14 x5.299    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 17   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                     |
|-------------------|----------------|-------------|---------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting   |
| Date Received:    | Not Applicable | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-351 mb           |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-351 mb.055       |
| Matrix:           | Water          | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)     | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <0.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 20ZVI-Port3-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-02 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-02 x5.300    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.6 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 20ZVI-Port2-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-03 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-03 x5.302    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 7.8 |
| Copper  | 3.1 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 20ZVI-Port1-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-04 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-04 x5.303    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 42   |
| Copper  | <2.6 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                     |
|-------------------|----------------------|-------------|---------------------|
| Client Sample ID: | Control-Port3-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25             | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504411-07 x5        |
| Date Analyzed:    | 04/29/25             | Data File:  | 504411-07 x5.304    |
| Matrix:           | Water                | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)           | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
| Copper  | 4.0 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                     |
|-------------------|----------------------|-------------|---------------------|
| Client Sample ID: | Control-Port2-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25             | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504411-08 x5        |
| Date Analyzed:    | 04/29/25             | Data File:  | 504411-08 x5.305    |
| Matrix:           | Water                | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)           | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 320  |
| Copper  | <2.6 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                     |
|-------------------|----------------------|-------------|---------------------|
| Client Sample ID: | Control-Port1-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25             | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504411-09 x5        |
| Date Analyzed:    | 04/29/25             | Data File:  | 504411-09 x5.306    |
| Matrix:           | Water                | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)           | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 360  |
| Copper  | <2.6 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 50ZVI-Port3-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-12 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-12 x5.308    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.6 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 50ZVI-Port2-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-13 x5        |
| Date Analyzed:    | 04/29/25           | Data File:  | 504411-13 x5.311    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.6 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                     |
|-------------------|--------------------|-------------|---------------------|
| Client Sample ID: | 50ZVI-Port1-042425 | Client:     | Aspect Consulting   |
| Date Received:    | 04/24/25           | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504411-14 x5        |
| Date Analyzed:    | 04/30/25           | Data File:  | 504411-14 x5.312    |
| Matrix:           | Water              | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)         | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 10   |
| Copper  | <2.6 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                     |
|-------------------|----------------|-------------|---------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting   |
| Date Received:    | Not Applicable | Project:    | Glacier NW AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-352 mb           |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-352 mb.057       |
| Matrix:           | Water          | Instrument: | ICPMS3              |
| Units:            | ug/L (ppb)     | Operator:   | SP                  |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |       |
|---------|-------|
| Arsenic | <0.2  |
| Copper  | <0.52 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/01/25

Date Received: 04/24/25

Project: Glacier NW AS230067, F&BI 504411

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 504402-01 x20 (Matrix Spike)

| Analyte | Reporting<br>Units | Spike<br>Level | Sample<br>Result | Percent<br>Recovery<br>MS | Percent<br>Recovery<br>MSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|------------------|---------------------------|----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 4.92             | 115 b                     | 105 b                      | 75-125                 | 9 b               |
| Copper  | ug/L (ppb)         | 20             | 115              | 143 b                     | 78 b                       | 75-125                 | 59 b              |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Acceptance<br>Criteria |
|---------|--------------------|----------------|----------------------------|------------------------|
| Arsenic | ug/L (ppb)         | 10             | 102                        | 80-120                 |
| Copper  | ug/L (ppb)         | 20             | 103                        | 80-120                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/01/25

Date Received: 04/24/25

Project: Glacier NW AS230067, F&BI 504411

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: 504405-01 (Matrix Spike)

| Analyte | Reporting<br>Units | Spike<br>Level | Sample<br>Result | Percent<br>Recovery<br>MS | Percent<br>Recovery<br>MSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|------------------|---------------------------|----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 13.4             | 94 b                      | 98 b                       | 75-125                 | 4 b               |
| Copper  | ug/L (ppb)         | 20             | <0.52            | 91                        | 92                         | 75-125                 | 1                 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Acceptance<br>Criteria |
|---------|--------------------|----------------|----------------------------|------------------------|
| Arsenic | ug/L (ppb)         | 10             | 100                        | 80-120                 |
| Copper  | ug/L (ppb)         | 20             | 102                        | 80-120                 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

504411

Andrew Younkstki

Report To Delia Massey, Marc Chai tant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA 98104

Phone 206-413-5407 Email Delia.Massey@geosyntec.com

## SAMPLE CHAIN OF CUSTODY

04/24/25

C2/54

SAMPLERS (signature)

Emily Ruesen

PROJECT NAME

Glacier NW

PO #

AS230067

INVOICE TO

Please invoice

REMARKS  
Field filtered for dissolved /  
total metals. TDS= total Dissolved  
solids  
Project specific RIs? - Yes / No

through Carpa!

Page # 1 of 2

TURNAROUND TIME

☐ Standard turnaround  
☒ RUSH 24-hr; Onsite marked  
 Rush charges authorized by: Sam Pius

SAMPLE DISPOSAL

☐ Archive samples  
☐ Other

Default: Dispose after 30 days

## ANALYSES REQUESTED

|                           |        |              |              |             |           |          |          |               |                           | ANALYSES REQUESTED                |                                              |                                     |                                                      |                                                          |                         |                             |                            |       |                 |   |
|---------------------------|--------|--------------|--------------|-------------|-----------|----------|----------|---------------|---------------------------|-----------------------------------|----------------------------------------------|-------------------------------------|------------------------------------------------------|----------------------------------------------------------|-------------------------|-----------------------------|----------------------------|-------|-----------------|---|
| Sample ID                 | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | TDS (SM 2640C) NWTPH-HCID | Salinity (SM 2620B) VOCs EPA 8260 | Total Organic Carbon (SM 5310) PAHs EPA 8270 | Alkalinity (SM 2320B) PCBs EPA 8082 | Total metals (As, Ca, Cu, Fe, Mg, Mn, K, Na) (6020B) | Dissolved Metals (As, Ca, Cu, Fe, Mg, Mn, K, Na) (6020B) | Total As and Cu (6020B) | Dissolved As and Cu (6020B) | Br, Cl, F, SO4 (EPA 300.0) | Notes |                 |   |
| Control - EFF-042425      | 01A-D  | 4/24/25      | 10:35        | N           | 4         |          |          |               | X                         | X                                 | X                                            | X                                   | X                                                    | X                                                        |                         |                             |                            | X     | RUSH TID metals | X |
| 20 ZVI - Port 3 - 042425  | 02A-B  |              | 12:25        |             | 2         |          |          |               |                           |                                   |                                              |                                     |                                                      |                                                          | X                       |                             |                            |       |                 |   |
| 20 ZVI - Port 2 - 042425  | 03     |              | 13:40        |             | 2         |          |          |               |                           |                                   |                                              |                                     |                                                      |                                                          | X                       |                             |                            |       |                 |   |
| 20 ZVI - Port 1 - 042425  | 04     |              | 14:15        |             | 2         |          |          |               |                           |                                   |                                              |                                     |                                                      |                                                          | X                       |                             |                            |       |                 |   |
| 20 ZVI - EFF-042425       | 05A-D  |              | 10:40        |             | 4         |          |          |               | X                         | X                                 | X                                            | X                                   | X                                                    | X                                                        |                         |                             |                            | X     | RUSH TID metals | X |
| 20 ZVI - INF-042425       | 06     |              | 15:15        |             | 4         |          |          |               | X                         | X                                 | X                                            | X                                   | X                                                    | X                                                        |                         |                             |                            | X     | RUSH TID metals | X |
| Control - Port 3 - 042425 | 07A-B  |              | 12:20        |             | 2         |          |          |               |                           |                                   |                                              |                                     |                                                      |                                                          | X                       |                             |                            |       |                 |   |
| Control - Port 2 - 042425 | 08     |              | 13:35        |             | 2         |          |          |               |                           |                                   |                                              |                                     |                                                      |                                                          | X                       |                             |                            |       |                 |   |
| Control - Port 1 - 042425 | 09     |              | 14:10        |             | 2         |          |          |               |                           |                                   |                                              |                                     |                                                      |                                                          | X                       |                             |                            |       |                 |   |
| Control - INF-042425      | 10A-D  |              | 15:05        |             | 4         |          |          |               | X                         | X                                 | X                                            | X                                   | X                                                    | X                                                        |                         |                             |                            | X     | RUSH TID metals | X |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman &amp; Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

Relinquished by: Emily Ruesen

Received by:

Relinquished by:

Received by:

Emily Ruesen

Joe Williams

ASPECT

TDS

Samples received at 3:00

4/24/25 17:57

04/24/25 17:57

50411

Andrew Homcotski

## SAMPLE CHAIN OF CUSTODY

04/24/25

c2/54

Page # 2 of 2

Report To Debra Massey, Marc ChalfantCompany Aspect ConsultingAddress 710 2nd Ave, Suite 550City, State, ZIP Seattle, WA 98104Phone 206-413-5407 Email debra.massey@aspect.com

SAMPLERS (signature)

PROJECT NAME

Glacier Northwest

PO #

AS230067

REMARKS

Field Filtered for T/D metals

INVOICE TO

Please invoice through Coupa

Project specific RLS? - Yes / No

|                                              |                                                                                 |
|----------------------------------------------|---------------------------------------------------------------------------------|
| TURNAROUND TIME                              |                                                                                 |
| <input type="checkbox"/> Standard turnaround | <input checked="" type="checkbox"/> RUSH 24-hr. <u>24 hr</u> Turnaround samples |
| <input type="checkbox"/> Archive samples     | Rush charges authorized by: _____                                               |
| <input type="checkbox"/> Other _____         |                                                                                 |
| Default: Dispose after 30 days               |                                                                                 |

## ANALYSES REQUESTED

|                     |        |              |              |             |           | (5m300) ANALYSES REQUESTED    |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             |                            |                                |                                                                       |       |                 |  |  |  |
|---------------------|--------|--------------|--------------|-------------|-----------|-------------------------------|----------------------------------|---------------------------------------|--------------------------------------|-------------------------------------------|---------------|------------------------------------|---------------------------------------------------------|-------------------------------------------------------------|----------------------------|--------------------------------|-----------------------------------------------------------------------|-------|-----------------|--|--|--|
| Sample ID           | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | TDS (5m 2540 c/E)<br>NWTPH-Dx | Salinity (5m 2520 B)<br>NWTPH-Gx | Total Organic Carbon<br>BTEX EPA 8021 | Alkalinity (5m 2320 B)<br>NWTPH-HClD | Br, Cl, F, SO4 (EPA 300)<br>VOCs EPA 8260 | PAHs EPA 8270 | PCP (SW 8270 E-5)<br>PCBs EPA 8082 | Total Metals (As, Ca, Cu, Fe, Mg, Mn, K, Na)<br>(6020B) | Dissolved Metals (As, Ca, Cu, Fe, Mg, Mn, K, Na)<br>(6020B) | Total As and Cu<br>(6020B) | Dissolved As and Cu<br>(6020B) | NO3 as N, NO2 as N<br>Orthophosphate as PO4 <sup>3-</sup> (EPA 300.0) | Notes |                 |  |  |  |
| 502V1-EFF-042425    | 11A-E  | 4/24/25      | 1045         | W           | 5         | X                             | X                                | X                                     | X                                    | X                                         |               | X                                  | X                                                       | X                                                           |                            |                                |                                                                       | X     | RUSH T/D metals |  |  |  |
| 502V1-Port 3-042425 | 12A-B  |              | 1325         |             | 2         |                               |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             | X                          | X                              |                                                                       |       |                 |  |  |  |
| 502V1-Port 2-042425 | 13     |              | 1355         |             | 2         |                               |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             | X                          | X                              |                                                                       |       |                 |  |  |  |
| 502V1-Port 1-042425 | 14     |              | 1430         |             | 2         |                               |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             | X                          | X                              |                                                                       |       |                 |  |  |  |
| 502V1-INF-042425    | 15A-D  |              | 1515         |             | 4         | X                             | X                                | X                                     | X                                    | X                                         |               |                                    | X                                                       | X                                                           |                            |                                |                                                                       | X     | RUSH T/D metals |  |  |  |
| INFLUENT-042425     | 16     | 1            | 1520         | ↓           | 4         | X                             | X                                | X                                     | X                                    | X                                         |               |                                    | X                                                       | X                                                           |                            |                                |                                                                       | X     | RUSH T/D metals |  |  |  |
|                     |        |              |              |             |           |                               |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             |                            |                                |                                                                       |       |                 |  |  |  |
|                     |        |              |              |             |           |                               |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             |                            |                                |                                                                       |       |                 |  |  |  |
|                     |        |              |              |             |           |                               |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             |                            |                                |                                                                       |       |                 |  |  |  |
|                     |        |              |              |             |           |                               |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             |                            |                                |                                                                       |       |                 |  |  |  |
|                     |        |              |              |             |           |                               |                                  |                                       |                                      |                                           |               |                                    |                                                         |                                                             |                            |                                |                                                                       |       |                 |  |  |  |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman &amp; Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

Relinquished by:

Emily Ruben

PRINT NAME

Emily Ruben

COMPANY

ASPECT

DATE

4/24/25

TIME

17:57

Received by:

Relinquished by:

Received by:

Received by:

Received by:

☐ Standard turnaround

☒ RUSH 24-hr. 24 hr Turnaround samples

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

☐ Archive samples

☐ Other \_\_\_\_\_

Default: Dispose after 30 days

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504411 CLIENT ASP INITIALS/ 04 | 24 | 25 gm  
DATE: \_\_\_\_\_

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 3 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/ 4/25 JB  
\*or other representative documents, letters, and/or shipping memos Date: \_\_\_\_\_

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |       |                                           |
|--------------------|--------------------------------------------------------------------------|-------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold | _____ |                                           |

Other comments (use a separate page if needed)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Air Samples: Were any additional canisters/tubes received? ☐ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 7, 2025

Andrew Yonkofski, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the additional results from the testing of material submitted on April 25, 2025 from the Glacier Northwest AS230067, F&BI 504435 project. There are 17 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Delia Massey, Marc Chalfant  
ASP0507R.DOC



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 25, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504435 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504435 -01           | Control-EFF-042525       |
| 504435 -02           | Control-PORT3-042525     |
| 504435 -03           | Control-PORT2-042525     |
| 504435 -04           | Control-PORT1-042525     |
| 504435 -05           | Control-INF-042525       |
| 504435 -06           | 20ZVI-EFF-042525         |
| 504435 -07           | 20ZVI-PORT3-042525       |
| 504435 -08           | 20ZVI-PORT2-042525       |
| 504435 -09           | 20ZVI-PORT1-042525       |
| 504435 -10           | 20ZVI-INF-042525         |
| 504435 -11           | 50ZVI-EFF-042525         |
| 504435 -12           | 50ZVI-PORT3-042525       |
| 504435 -13           | 50ZVI-PORT2-042525       |
| 504435 -14           | 50ZVI-PORT1-042525       |
| 504435 -15           | 50ZVI-INF-042525         |
| 504435 -16           | INFLUENT-042525          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, F, Br) were sent to Alliance Technical Group for testing. The report will be forwarded upon receipt.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-01 x5               |
| Date Analyzed:    | 05/05/25           | Data File:  | 504435-01 x5.142           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 280 |
|------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-01 x100             |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-01 x100.313         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 550 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-06 x100             |
| Date Analyzed:    | 05/06/25         | Data File:  | 504435-06 x100.102         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 860 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-06 x500             |
| Date Analyzed:    | 04/30/25         | Data File:  | 504435-06 x500.317         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |        |
|------|--------|
| Iron | 98,000 |
|------|--------|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-11 x200             |
| Date Analyzed:    | 05/05/25         | Data File:  | 504435-11 x200.144         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 44,000 |
| Manganese | 360    |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504435-16 x100             |
| Date Analyzed:    | 05/05/25        | Data File:  | 504435-16 x100.145         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 15,000 |
| Manganese | 160    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-351 mb                  |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-351 mb.055              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Iron      | <50 |
| Manganese | <1  |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-01 x2               |
| Date Analyzed:    | 05/02/25           | Data File:  | 504435-01 x2.178           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 340 |
|------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-01 x100             |
| Date Analyzed:    | 05/02/25           | Data File:  | 504435-01 x100.177         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 520 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-06 x500             |
| Date Analyzed:    | 05/02/25         | Data File:  | 504435-06 x500.179         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 86,000 |
| Manganese | 900    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-11 x200             |
| Date Analyzed:    | 05/05/25         | Data File:  | 504435-11 x200.146         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 36,000 |
| Manganese | 340    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504435-16 x100             |
| Date Analyzed:    | 05/02/25        | Data File:  | 504435-16 x100.201         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 14,000 |
| Manganese | 170    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-359 mb                  |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-359 mb.254              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Iron      | <50 |
| Manganese | <1  |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/07/25

Date Received: 04/25/25

Project: Glacier Northwest AS230067, F&BI 504435

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 504402-01 x20 (Matrix Spike)

| Analyte   | Reporting<br>Units | Spike<br>Level | Sample<br>Result | Percent<br>Recovery<br>MS | Percent<br>Recovery<br>MSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|------------------|---------------------------|----------------------------|------------------------|-------------------|
| Iron      | ug/L (ppb)         | 100            | 24,100           | 3440 b                    | 1340 b                     | 75-125                 | 88 b              |
| Manganese | ug/L (ppb)         | 20             | 327              | 334 b                     | 186 b                      | 75-125                 | 57 b              |

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Acceptance<br>Criteria |
|-----------|--------------------|----------------|----------------------------|------------------------|
| Iron      | ug/L (ppb)         | 100            | 96                         | 80-120                 |
| Manganese | ug/L (ppb)         | 20             | 104                        | 80-120                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/07/25

Date Received: 04/25/25

Project: Glacier Northwest AS230067, F&BI 504435

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Iron      | ug/L (ppb)         | 100            | 96                         | 94                          | 80-120                 | 2                 |
| Manganese | ug/L (ppb)         | 20             | 99                         | 98                          | 80-120                 | 1                 |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

504435 Andrew Jonkotski

Debra Massey; Marc Chantant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA, 98104

Phone 206-413-5407 Email Debra.massey@aspect.com

SAMPLE CHAIN OF CUSTODY

04-25-25

54

SAMPLERS (signature)

Emily Rusan

PROJECT NAME

PO #

REMARKS

Field filters for TPD metals

Project specific RLS? - Yes / No

INVOICE TO

Please invoice through Coupa

Page # 1 of 2

TURNAROUND TIME

Standard turnaround 24 hr - 5 days  
Rush charges authorized by: [Signature]  
As and Cu 24 hr TAT per MC 04/28/25 ME

SAMPLE DISPOSAL

☐ Archive samples  
☐ Other  
Default: Dispose after 30 days

| 5m 2540-16              |        |              |              |             |           |                                     |                      |                        |               |                                | ANALYSES REQUESTED     |               |                            |               |                         |               |                                                       |                                                           |                                                       |       |                                 |
|-------------------------|--------|--------------|--------------|-------------|-----------|-------------------------------------|----------------------|------------------------|---------------|--------------------------------|------------------------|---------------|----------------------------|---------------|-------------------------|---------------|-------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------|-------|---------------------------------|
| Sample ID               | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | Total Dissolved Solids (5m 2540-16) | Salinity (5m 2520 B) | Alkalinity (5m 3220 B) | BTEX EPA 8021 | Total Organic Carbon (5m 3100) | Total As + Cu (6020 B) | VOCs EPA 8260 | Dissolved As + Cu (6020 B) | PAHs EPA 8270 | B, Cl, F, SO4 (EPA 300) | PCBs EPA 8082 | Total Metals (As, Cd, Cu, Fe, Mn, Mg, K, Na) (6020 B) | Dissolved Metals (As, Cd, Cu, Fe, Mn, Mg, K, Na) (6020 B) | NO3 as N, NO2 as N, or phosphate as PO43- (EPA 300.0) | Notes |                                 |
| Control - EFF-042525    | 01 A-D | 4/25/25      | 0925         | W           | 4         | X                                   | X                    | X                      | X             | X                              |                        |               |                            |               | X                       | X             | X                                                     | X                                                         | X                                                     | X     | PUSH TAT for TPD metals<br>ER   |
| Control - Port 3-042525 | 02 A-B |              | 1030         |             | 2         |                                     |                      |                        |               |                                | X                      |               |                            |               |                         |               |                                                       |                                                           |                                                       |       |                                 |
| Control - Port 2-042525 | 03     |              | 1115         |             | 2         |                                     |                      |                        |               |                                | X                      |               | X                          |               |                         |               |                                                       |                                                           |                                                       |       |                                 |
| Control - Port 1-042525 | 04     |              | 1215         |             | 2         |                                     |                      |                        |               |                                | X                      |               | X                          |               |                         |               |                                                       |                                                           |                                                       |       |                                 |
| Control - INF-042525    | 05 A-D |              | 1325         |             | 4         | X                                   | X                    | X                      | X             | X                              |                        |               |                            |               | X                       | X             | X                                                     | X                                                         | X                                                     | X     | HOLD<br>PUSH TAT for TPD metals |
| 20 ZVI - EFF-042525     | 06 A-D |              | 0930         |             | 4         | X                                   | X                    | X                      | X             | X                              |                        |               |                            |               | X                       | X             | X                                                     | X                                                         | X                                                     |       |                                 |
| 20 ZVI - Port 3-042525  | 07 A-B |              | 1035         |             | 2         |                                     |                      |                        |               |                                | X                      |               |                            |               |                         |               |                                                       |                                                           |                                                       |       |                                 |
| 20 ZVI - Port 2-042525  | 08     |              | 1120         |             | 2         |                                     |                      |                        |               |                                | X                      |               | X                          |               |                         |               |                                                       |                                                           |                                                       |       |                                 |
| 20 ZVI - Port 1-042525  | 09     |              | 1220         |             | 2         |                                     |                      |                        |               |                                | X                      |               | X                          |               |                         |               |                                                       |                                                           |                                                       |       |                                 |
| 20 ZVI - INF-042525     | 10 A-D |              | 1330         |             | 4         | X                                   | X                    | X                      | X             | X                              |                        |               |                            |               | X                       | X             | X                                                     | X                                                         | X                                                     | X     | HOLD                            |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman & Bruya, Inc.  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

Relinquished by: Emily Rusan

Relinquished by: Marc Chantant

ASPECT

4/25/25 1608

Received by:

Samples received at 4:00

504435

Andrew Jonkotski

Report To Delia Massey, Marc ChalcantCompany Aspect ConsultingAddress 710 2nd Ave, Suite 550City, State, ZIP Seattle, WA, 98104Phone 206-413-5407 Email Delia.Massey@geosyntec.com

SAMPLE CHAIN OF CUSTODY 04-25-25

J4

Page # 2 of 2

TURNAROUND TIME

☒ Standard turnaround  
☒ Rush charges authorized by: ER

SAMPLE DISPOSAL

☐ Archive samples  
☐ Other \_\_\_\_\_

Default: Dispose after 30 days

SAMPLERS (signature)

Emily Pustan

PROJECT NAME

Glacier Northwest

PO #

AS230067

REMARKS

Field filtered to rT/D metals

INVOICE TO

Please invoice

Project specific RLS? - Yes / No

through Courpa

ANALYSES REQUESTED

| ANALYSES REQUESTED       |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|--------------------------|--------|--------------|--------------|-------------|-----------|-------------------------------------------|-----------------------------|------------------------------------|-------------------------------------------|-------------------------------------|-----------------------------------------|------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------|--------------------------|
| Sample ID                | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | Total Dissolved Solids (5m2520B) NWTPH-Dx | Salinity (3m2520B) NWTPH-Gx | Alkalinity (5m2320B) BTEX EPA 8021 | Total Organic Carbon (5m2520B) NWTPH-HCID | Total As + Cu (6020B) VOCs EPA 8260 | Dissolved As + Cu (6020B) PAHs EPA 8270 | Br, Cl, F, SO <sub>4</sub> (EPA 300.0) PCBs EPA 8082 | Total Metals (As, Ca, Cu, Mn, Mg, Fe, K, Na) (6020B) | Dissolved Metals (As, Ca, Cu, Fe, Mn, Mg, K, Ni) (6020B) | NO <sub>3</sub> , NH <sub>4</sub> , NO <sub>2</sub> , N <sub>2</sub> , or inorganic nutrients Poly <sub>3</sub> (EPA 300.0) | Notes |                          |
| 50ZV1-EFF-042525         | 11A-D  | 4/25/25      | 0935         | W           | 4         | X                                         | X                           | X                                  | X                                         |                                     |                                         | X                                                    | X                                                    | X                                                        | X                                                                                                                           |       | RUSH IN FOR IP METALS ER |
| 50ZV1-PORT3-042525       | 12A-B  | 4/25/25      | 1040         | W           | 2         |                                           |                             |                                    |                                           | X                                   | X                                       |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
| <del>50ZV1-PORT</del> ER |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
| 50ZV1-PORT2-042525       | 13A-B  | 4/25/25      | 1125         | W           | 2         |                                           |                             |                                    |                                           | X                                   | X                                       |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
| 50ZV1-PORT1-042525       | 14A-B  |              | 1225         |             | 2         |                                           |                             |                                    |                                           | X                                   | X                                       |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
| 50ZV1-INF-042525         | 15A-D  |              | 1335         |             | 4         | X                                         | X                           | X                                  | X                                         |                                     |                                         | X                                                    | X                                                    | X                                                        | X                                                                                                                           |       | HOLD                     |
| INFLUENT-042525          | 16A-D  |              | 1340         |             | 4         | X                                         | X                           | X                                  | X                                         |                                     |                                         | X                                                    | X                                                    | X                                                        | X                                                                                                                           |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           |                             |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |
|                          |        |              |              |             |           |                                           | </                          |                                    |                                           |                                     |                                         |                                                      |                                                      |                                                          |                                                                                                                             |       |                          |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman &amp; Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

Relinquished by:

Emily Pustan

PRINT NAME

Emily Pustan

COMPANY

DATE

TIME

Received by:

Emily Pustan

PRINT NAME

Emily Pustan

COMPANY

DATE

TIME

Relinquished by:

Emily Pustan

PRINT NAME

Emily Pustan

COMPANY

DATE

TIME

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504435 CLIENT Aspect INITIALS/DATE: (Signature) 4/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 4 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/Date: (Signature) 4/28  
\*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |                                           |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

**Friedman & Bruya**

Michael Erdahl

5500 4th Ave S

Seattle, WA 98108

**RE: 504435,**

**Work Order Number: 2504663**

May 05, 2025

**Attention Michael Erdahl:**

Alliance Technical Group, LLC - Seattle received 7 sample(s) on 4/28/2025 for the analyses presented in the following report.

***Dissolved Metals by EPA 6020B***

***Ion Chromatography by EPA 300.0***

***Salinity by SM 2520B***

***Total Alkalinity by EPA 310.2***

***Total Dissolved Solids by SM 2540C***

***Total Metals by EPA 6020B***

***Total Organic Carbon by SM 5310C***

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,



Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original



**CLIENT:** Friedman & Bruya  
**Project:** 504435  
**Work Order:** 2504663

## Work Order Sample Summary

| Lab Sample ID | Client Sample ID   | Date/Time Collected | Date/Time Received |
|---------------|--------------------|---------------------|--------------------|
| 2504663-001   | Control-Eff-042525 | 04/25/2025 9:25 AM  | 04/28/2025 2:36 PM |
| 2504663-002   | Control-INF-042525 | 04/25/2025 1:25 PM  | 04/28/2025 2:36 PM |
| 2504663-003   | 20ZVI-EFF-042525   | 04/25/2025 9:30 AM  | 04/28/2025 2:36 PM |
| 2504663-004   | 20ZVI-INF-042525   | 04/25/2025 1:30 PM  | 04/28/2025 2:36 PM |
| 2504663-005   | 50ZVI-EFF-042525   | 04/25/2025 9:35 AM  | 04/28/2025 2:36 PM |
| 2504663-006   | 50ZVI-INF-042525   | 04/25/2025 1:35 PM  | 04/28/2025 2:36 PM |
| 2504663-007   | INFLUENT-042525    | 04/25/2025 1:40 PM  | 04/28/2025 2:36 PM |

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Friedman & Bruya

**Project:** 504435

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**CLIENT:** Friedman & Bruya  
**Project:** 504435

**Lab ID:** 2504663-001

**Collection Date:** 4/25/2025 9:25:00 AM

**Client Sample ID:** Control-Eff-042525

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.124 | 0.100 |    | mg/L | 1 | 4/29/2025 8:10:00 PM |
| Chloride               | 4.44  | 0.200 |    | mg/L | 1 | 4/29/2025 8:10:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 8:10:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 8:10:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 8:10:00 PM |
| Ortho-Phosphate (as P) | 0.501 | 0.400 | QH | mg/L | 1 | 4/29/2025 8:10:00 PM |
| Sulfate                | 3.00  | 1.00  |    | mg/L | 1 | 4/29/2025 8:10:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 64,000 | 250  |  | µg/L | 1 | 5/5/2025 1:17:00 PM |
| Magnesium | 6,320  | 50.0 |  | µg/L | 1 | 5/5/2025 1:17:00 PM |
| Potassium | 3,960  | 50.0 |  | µg/L | 1 | 5/5/2025 1:17:00 PM |
| Sodium    | 15,100 | 100  |  | µg/L | 1 | 5/5/2025 1:17:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |     |  |      |   |                      |
|-----------|--------|-----|--|------|---|----------------------|
| Calcium   | 66,600 | 120 |  | µg/L | 1 | 4/29/2025 5:15:00 PM |
| Magnesium | 6,300  | 100 |  | µg/L | 1 | 4/29/2025 5:15:00 PM |
| Potassium | 3,960  | 100 |  | µg/L | 1 | 4/29/2025 5:15:00 PM |
| Sodium    | 15,000 | 200 |  | µg/L | 1 | 4/29/2025 5:15:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 4.09 | 0.700 |  | mg/L | 1 | 5/2/2024 2:00:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 231 | 25.0 | D | mg/L | 10 | 5/2/2025 1:35:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 278 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504663**  
Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya  
**Project:** 504435

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**CLIENT:** Friedman & Bruya  
**Project:** 504435

**Lab ID:** 2504663-003

**Collection Date:** 4/25/2025 9:30:00 AM

**Client Sample ID:** 20ZVI-EFF-042525

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.129 | 0.100 |    | mg/L | 1 | 4/29/2025 8:33:00 PM |
| Chloride               | 4.58  | 0.200 |    | mg/L | 1 | 4/29/2025 8:33:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 8:33:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 8:33:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 8:33:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 8:33:00 PM |
| Sulfate                | 3.34  | 1.00  |    | mg/L | 1 | 4/29/2025 8:33:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 62,600 | 250  |  | µg/L | 1 | 5/5/2025 1:20:00 PM |
| Magnesium | 5,530  | 50.0 |  | µg/L | 1 | 5/5/2025 1:20:00 PM |
| Potassium | 3,740  | 50.0 |  | µg/L | 1 | 5/5/2025 1:20:00 PM |
| Sodium    | 15,500 | 100  |  | µg/L | 1 | 5/5/2025 1:20:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 70,600 | 1,200 | D | µg/L | 20 | 5/2/2025 11:33:00 AM |
| Magnesium | 5,420  | 50.0  |   | µg/L | 1  | 4/29/2025 5:18:00 PM |
| Potassium | 3,680  | 50.0  |   | µg/L | 1  | 4/29/2025 5:18:00 PM |
| Sodium    | 15,000 | 100   |   | µg/L | 1  | 4/29/2025 5:18:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 2.43 | 0.700 |  | mg/L | 1 | 5/2/2024 2:31:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 225 | 25.0 | D | mg/L | 10 | 5/2/2025 1:39:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 236 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504663**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504435

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**CLIENT:** Friedman & Bruya  
**Project:** 504435

**Lab ID:** 2504663-005

**Collection Date:** 4/25/2025 9:35:00 AM

**Client Sample ID:** 50ZVI-EFF-042525

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.104 | 0.100 |    | mg/L | 1 | 4/29/2025 8:56:00 PM |
| Chloride               | 4.85  | 0.200 |    | mg/L | 1 | 4/29/2025 8:56:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 8:56:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 8:56:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 8:56:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 8:56:00 PM |
| Sulfate                | 2.88  | 1.00  |    | mg/L | 1 | 4/29/2025 8:56:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 59,200 | 250  |  | µg/L | 1 | 5/5/2025 1:23:00 PM |
| Magnesium | 5,930  | 50.0 |  | µg/L | 1 | 5/5/2025 1:23:00 PM |
| Potassium | 3,950  | 50.0 |  | µg/L | 1 | 5/5/2025 1:23:00 PM |
| Sodium    | 15,700 | 100  |  | µg/L | 1 | 5/5/2025 1:23:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 64,000 | 1,200 | D | µg/L | 20 | 5/2/2025 11:36:00 AM |
| Magnesium | 5,690  | 50.0  |   | µg/L | 1  | 4/29/2025 5:21:00 PM |
| Potassium | 3,880  | 50.0  |   | µg/L | 1  | 4/29/2025 5:21:00 PM |
| Sodium    | 15,300 | 100   |   | µg/L | 1  | 4/29/2025 5:21:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 1.35 | 0.700 |  | mg/L | 1 | 5/2/2024 4:24:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 185 | 25.0 | D | mg/L | 10 | 5/2/2025 1:41:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 234 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504663**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504435

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**CLIENT:** Friedman & Bruya  
**Project:** 504435

**Lab ID:** 2504663-007

**Collection Date:** 4/25/2025 1:40:00 PM

**Client Sample ID:** INFLUENT-042525

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.166 | 0.100 |    | mg/L | 1 | 4/29/2025 9:19:00 PM |
| Chloride               | 3.67  | 0.200 |    | mg/L | 1 | 4/29/2025 9:19:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 9:19:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 9:19:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 9:19:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 9:19:00 PM |
| Sulfate                | 3.64  | 1.00  |    | mg/L | 1 | 4/29/2025 9:19:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 71,400 | 250  |  | µg/L | 1 | 5/5/2025 1:32:00 PM |
| Magnesium | 4,330  | 50.0 |  | µg/L | 1 | 5/5/2025 1:32:00 PM |
| Potassium | 3,520  | 50.0 |  | µg/L | 1 | 5/5/2025 1:32:00 PM |
| Sodium    | 13,300 | 100  |  | µg/L | 1 | 5/5/2025 1:32:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |      |   |      |   |                      |
|-----------|--------|------|---|------|---|----------------------|
| Calcium   | 75,400 | 60.0 | E | µg/L | 1 | 4/29/2025 5:25:00 PM |
| Magnesium | 4,250  | 50.0 |   | µg/L | 1 | 4/29/2025 5:25:00 PM |
| Potassium | 3,540  | 50.0 |   | µg/L | 1 | 4/29/2025 5:25:00 PM |
| Sodium    | 12,900 | 100  |   | µg/L | 1 | 4/29/2025 5:25:00 PM |

**NOTES:**

E - value is slightly beyond the calibration range of the instrument and may be estimated. Insufficient volume remains for reanalysis.

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 5.24 | 0.700 |  | mg/L | 1 | 5/2/2024 4:43:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 219 | 25.0 | D | mg/L | 10 | 5/2/2025 1:43:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|



## Analytical Report

Work Order: **2504663**  
Date Reported: **5/5/2025**

---

**CLIENT:** Friedman & Bruya  
**Project:** 504435

---

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442      Analyst: BB

|                        |     |      |      |   |                      |
|------------------------|-----|------|------|---|----------------------|
| Total Dissolved Solids | 278 | 5.00 | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|------|---|----------------------|



**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Total Alkalinity by EPA 310.2

|                            |        |                         |           |             |                                |          |                            |             |                       |                     |      |  |
|----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>MB-99477</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             |                       | RunNo: <b>99477</b> |      |  |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>R99477</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             | SeqNo: <b>2071986</b> |                     |      |  |
| Analyte                    | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |

|                              |    |      |  |  |  |  |  |  |  |  |  |
|------------------------------|----|------|--|--|--|--|--|--|--|--|--|
| Alkalinity, Total (As CaCO3) | ND | 2.50 |  |  |  |  |  |  |  |  |  |
|------------------------------|----|------|--|--|--|--|--|--|--|--|--|

|                             |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-99477</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |                       |      | RunNo: <b>99477</b> |      |  |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>R99477</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            | SeqNo: <b>2071987</b> |      |                     |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                              |      |      |       |   |     |      |     |  |  |  |  |
|------------------------------|------|------|-------|---|-----|------|-----|--|--|--|--|
| Alkalinity, Total (As CaCO3) | 25.7 | 2.50 | 25.00 | 0 | 103 | 79.4 | 136 |  |  |  |  |
|------------------------------|------|------|-------|---|-----|------|-----|--|--|--|--|

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504662-001ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |                       |      | RunNo: <b>99477</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99477</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            | SeqNo: <b>2071991</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                              |     |      |  |  |  |  |  |       |      |    |   |
|------------------------------|-----|------|--|--|--|--|--|-------|------|----|---|
| Alkalinity, Total (As CaCO3) | 217 | 25.0 |  |  |  |  |  | 209.0 | 3.86 | 20 | D |
|------------------------------|-----|------|--|--|--|--|--|-------|------|----|---|

|                               |        |                  |           |             |                         |          |                     |                |      |              |      |  |
|-------------------------------|--------|------------------|-----------|-------------|-------------------------|----------|---------------------|----------------|------|--------------|------|--|
| Sample ID: 2504663-001ADUP    |        | SampType: DUP    |           |             | Units: mg/L             |          | Prep Date: 5/2/2025 |                |      | RunNo: 99477 |      |  |
| Client ID: Control-Eff-042525 |        | Batch ID: R99477 |           |             | Analysis Date: 5/2/2025 |          |                     | SeqNo: 2072002 |      |              |      |  |
| Analyte                       | Result | RL               | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val    | %RPD | RPDLimit     | Qual |  |

|                              |     |      |  |  |  |  |  |       |   |    |   |
|------------------------------|-----|------|--|--|--|--|--|-------|---|----|---|
| Alkalinity, Total (As CaCO3) | 231 | 25.0 |  |  |  |  |  | 231.0 | 0 | 20 | D |
|------------------------------|-----|------|--|--|--|--|--|-------|---|----|---|

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                            |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47545</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/29/2025</b> |                                 |             | RunNo: <b>99463</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47545</b> |           |                    |      |                             | Analysis Date: <b>4/29/2025</b> |             |                     | SeqNo: <b>2071891</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Fluoride                   | ND     | 0.100                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Chloride                   | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Nitrite (as N)             | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Bromide                    | ND     | 0.600                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Nitrate (as N)             | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Ortho-Phosphate (as P)     | ND     | 0.400                  |           |                    |      |                             |                                 |             |                     |                       | Q    |
| Sulfate                    | ND     | 1.00                   |           |                    |      |                             |                                 |             |                     |                       |      |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

|                             |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>LCS-47545</b> |        | SampType: <b>LCS</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/29/2025</b> |                                 |             | RunNo: <b>99463</b> |                       |      |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47545</b> |           |                    |      |                             | Analysis Date: <b>4/29/2025</b> |             |                     | SeqNo: <b>2071892</b> |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Fluoride                    | 0.481  | 0.100                  | 0.5000    | 0                  | 96.2 | 90                          | 110                             |             |                     |                       |      |
| Chloride                    | 0.751  | 0.200                  | 0.7500    | 0                  | 100  | 90                          | 110                             |             |                     |                       |      |
| Nitrite (as N)              | 0.706  | 0.200                  | 0.7500    | 0                  | 94.1 | 90                          | 110                             |             |                     |                       |      |
| Bromide                     | 2.47   | 0.600                  | 2.500     | 0                  | 98.6 | 90                          | 110                             |             |                     |                       |      |
| Nitrate (as N)              | 0.749  | 0.200                  | 0.7500    | 0                  | 99.9 | 90                          | 110                             |             |                     |                       |      |
| Ortho-Phosphate (as P)      | 1.14   | 0.400                  | 1.250     | 0                  | 91.5 | 90                          | 110                             |             |                     |                       |      |
| Sulfate                     | 3.59   | 1.00                   | 3.750     | 0                  | 95.7 | 90                          | 110                             |             |                     |                       |      |

|                            |        |                 |           |             |                          |          |                      |             |                |          |      |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|----------|------|
| Sample ID: 2504657-001CDUP |        | SampType: DUP   |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             | RunNo: 99463   |          |      |
| Client ID: BATCH           |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071894 |          |      |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit | Qual |
| Fluoride                   | ND     | 0.100           |           |             |                          |          |                      | 0           |                | 20       |      |
| Chloride                   | 4.60   | 0.200           |           |             |                          |          |                      | 4.604       | 0.174          | 20       |      |
| Nitrite (as N)             | ND     | 0.200           |           |             |                          |          |                      | 0           |                | 20       |      |
| Bromide                    | ND     | 0.600           |           |             |                          |          |                      | 0           |                | 20       |      |
| Nitrate (as N)             | ND     | 0.200           |           |             |                          |          |                      | 0           |                | 20       |      |
| Ortho-Phosphate (as P)     | ND     | 0.400           |           |             |                          |          |                      | 0           |                | 20       | Q    |

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                            |        |                 |           |             |                          |          |                      |             |                |              |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504657-001CDUP |        | SampType: DUP   |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             |                | RunNo: 99463 |      |  |
| Client ID: BATCH           |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071894 |              |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |
| Sulfate                    | 18.5   | 1.00            |           |             |                          |          |                      | 18.56       | 0.0701         | 20           |      |  |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

|                           |        |                 |           |             |                          |          |                      |             |                |          |      |
|---------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|----------|------|
| Sample ID: 2504657-001CMS |        | SampType: MS    |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             | RunNo: 99463   |          |      |
| Client ID: BATCH          |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071895 |          |      |
| Analyte                   | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit | Qual |
| Fluoride                  | 0.563  | 0.100           | 0.5000    | 0.07900     | 96.8                     | 80       | 120                  |             |                |          |      |
| Chloride                  | 5.34   | 0.200           | 0.7500    | 4.604       | 98.5                     | 80       | 120                  |             |                |          |      |
| Nitrite (as N)            | 0.735  | 0.200           | 0.7500    | 0           | 98.0                     | 80       | 120                  |             |                |          |      |
| Bromide                   | 2.52   | 0.600           | 2.500     | 0           | 101                      | 80       | 120                  |             |                |          |      |
| Nitrate (as N)            | 0.791  | 0.200           | 0.7500    | 0           | 105                      | 80       | 120                  |             |                |          |      |
| Ortho-Phosphate (as P)    | 0.952  | 0.400           | 1.250     | 0           | 76.2                     | 80       | 120                  |             |                |          | S    |
| Sulfate                   | 22.3   | 1.00            | 3.750     | 18.56       | 100                      | 80       | 120                  |             |                |          |      |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed and recovered within range.

|                            |        |                 |           |             |                          |          |                      |             |                |              |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504657-001CMSD |        | SampType: MSD   |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             |                | RunNo: 99463 |      |  |
| Client ID: BATCH           |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071896 |              |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |
| Fluoride                   | 0.568  | 0.100           | 0.5000    | 0.07900     | 97.8                     | 80       | 120                  | 0.5630      | 0.884          | 20           |      |  |
| Chloride                   | 5.35   | 0.200           | 0.7500    | 4.604       | 99.1                     | 80       | 120                  | 5.343       | 0.0748         | 20           |      |  |
| Nitrite (as N)             | 0.738  | 0.200           | 0.7500    | 0           | 98.4                     | 80       | 120                  | 0.7350      | 0.407          | 20           |      |  |
| Bromide                    | 2.54   | 0.600           | 2.500     | 0           | 102                      | 80       | 120                  | 2.515       | 1.07           | 20           |      |  |
| Nitrate (as N)             | 0.799  | 0.200           | 0.7500    | 0           | 107                      | 80       | 120                  | 0.7910      | 1.01           | 20           |      |  |
| Ortho-Phosphate (as P)     | 1.08   | 0.400           | 1.250     | 0           | 86.8                     | 80       | 120                  | 0.9520      | 13.1           | 20           |      |  |
| Sulfate                    | 22.3   | 1.00            | 3.750     | 18.56       | 101                      | 80       | 120                  | 22.30       | 0.179          | 20           |      |  |

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                                   |        |                        |           |                                 |      |                             |                       |             |                     |          |      |
|-----------------------------------|--------|------------------------|-----------|---------------------------------|------|-----------------------------|-----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2504658-001CDUP</b> |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b>              |      | Prep Date: <b>4/29/2025</b> |                       |             | RunNo: <b>99463</b> |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47545</b> |           | Analysis Date: <b>4/29/2025</b> |      |                             | SeqNo: <b>2071898</b> |             |                     |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val                     | %REC | LowLimit                    | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Fluoride                          | ND     | 0.100                  |           |                                 |      |                             |                       | 0           |                     | 20       |      |
| Chloride                          | 3.57   | 0.200                  |           |                                 |      |                             |                       | 3.568       | 0.140               | 20       |      |
| Nitrite (as N)                    | ND     | 0.200                  |           |                                 |      |                             |                       | 0           |                     | 20       |      |
| Bromide                           | ND     | 0.600                  |           |                                 |      |                             |                       | 0           |                     | 20       |      |
| Nitrate (as N)                    | 1.11   | 0.200                  |           |                                 |      |                             |                       | 1.111       | 0.0900              | 20       |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |                                 |      |                             |                       | 0           |                     | 20       | Q    |
| Sulfate                           | 9.44   | 1.00                   |           |                                 |      |                             |                       | 9.438       | 0.0741              | 20       |      |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

|                           |        |                 |           |             |                          |          |                      |             |                |          |      |
|---------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|----------|------|
| Sample ID: 2504658-001CMS |        | SampType: MS    |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             | RunNo: 99463   |          |      |
| Client ID: BATCH          |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071899 |          |      |
| Analyte                   | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit | Qual |
| Fluoride                  | 0.426  | 0.100           | 0.5000    | 0.05200     | 74.8                     | 80       | 120                  |             |                |          | S    |
| Chloride                  | 3.57   | 0.200           | 0.7500    | 3.568       | 0.800                    | 80       | 120                  |             |                |          | S    |
| Nitrite (as N)            | 0.594  | 0.200           | 0.7500    | 0           | 79.2                     | 80       | 120                  |             |                |          | S    |
| Bromide                   | 2.03   | 0.600           | 2.500     | 0           | 81.3                     | 80       | 120                  |             |                |          |      |
| Nitrate (as N)            | 1.57   | 0.200           | 0.7500    | 1.111       | 60.8                     | 80       | 120                  |             |                |          | S    |
| Ortho-Phosphate (as P)    | 0.676  | 0.400           | 1.250     | 0           | 54.1                     | 80       | 120                  |             |                |          | S    |
| Sulfate                   | 10.7   | 1.00            | 3.750     | 9.438       | 34.1                     | 80       | 120                  |             |                |          | S    |

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Salinity by SM 2520B

|                             |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-R99486</b> |        | SampType: <b>MBLK</b>   |           |             | Units: %                       |          | Prep Date: <b>5/5/2025</b> |             |      | RunNo: <b>99486</b>   |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            |             |      | SeqNo: <b>2072324</b> |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

Salinity ND 0.000100

|                              |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99486</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>µS/cm</b>            |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072325</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 986 0.00100 1,000 0 98.6 79.1 119.1

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504661-001ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: %                       |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072327</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 0.0100 0.000100 0.01000 0 30

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504662-001ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: %                       |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072332</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 0.0100 0.000100 0.01000 0 30

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Total Dissolved Solids by SM 2540C

|                             |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-R99442</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             |      | RunNo: <b>99442</b>   |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             |      | SeqNo: <b>2071396</b> |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                        |    |      |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|
| Total Dissolved Solids | ND | 5.00 |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|

|                              |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99442</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |                       |      | RunNo: <b>99442</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            | SeqNo: <b>2071397</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                        |     |      |       |   |     |    |     |  |  |  |  |
|------------------------|-----|------|-------|---|-----|----|-----|--|--|--|--|
| Total Dissolved Solids | 304 | 5.00 | 300.0 | 0 | 101 | 65 | 135 |  |  |  |  |
|------------------------|-----|------|-------|---|-----|----|-----|--|--|--|--|

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504658-001CDUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |                       |      | RunNo: <b>99442</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            | SeqNo: <b>2071399</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                        |      |      |  |  |  |  |  |       |      |    |  |
|------------------------|------|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 97.0 | 5.00 |  |  |  |  |  | 89.00 | 8.60 | 30 |  |
|------------------------|------|------|--|--|--|--|--|-------|------|----|--|

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504662-003ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |                       |      | RunNo: <b>99442</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            | SeqNo: <b>2071406</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                        |     |      |  |  |  |  |  |       |      |    |  |
|------------------------|-----|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 232 | 5.00 |  |  |  |  |  | 216.0 | 7.14 | 30 |  |
|------------------------|-----|------|--|--|--|--|--|-------|------|----|--|

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                         |                         |                    |           |             |                                |          |           |                       |      |          |      |
|-------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>MB</b>    | SampType: <b>MBLK</b>   | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/1/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>MBLKW</b> | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/1/2024</b> |          |           | SeqNo: <b>2071074</b> |      |          |      |
| Analyte                 | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon ND 0.700

|                        |                         |                    |           |             |                                |          |           |                       |      |          |      |
|------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>LCS</b>  | SampType: <b>LCS</b>    | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/1/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/1/2024</b> |          |           | SeqNo: <b>2071075</b> |      |          |      |
| Analyte                | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon 21.7 0.700 25.00 0 86.6 79.6 120

|                                   |                         |                    |           |             |                                |          |           |                       |      |          |      |
|-----------------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>2504661-001BDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/1/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/1/2024</b> |          |           | SeqNo: <b>2071077</b> |      |          |      |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon 3.93 0.700 3.953 0.533 15

|                                  |                         |                    |           |             |                                |          |           |                       |      |          |      |
|----------------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>2504662-003BMS</b> | SampType: <b>MS</b>     | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/1/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>BATCH</b>          | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/1/2024</b> |          |           | SeqNo: <b>2071086</b> |      |          |      |
| Analyte                          | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon 23.0 0.700 25.00 1.890 84.5 85 115 S

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

|                                    |                         |                    |           |             |                                |          |           |                       |      |          |      |
|------------------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>2504663-003BMS</b>   | SampType: <b>MS</b>     | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/2/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>20ZVI-EFF-042525</b> | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/2/2024</b> |          |           | SeqNo: <b>2071094</b> |      |          |      |
| Analyte                            | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon 23.7 0.700 25.00 2.430 85.0 85 115

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

| Sample ID: <b>2504663-003BMSD</b>  |        | SampType: <b>MSD</b>    |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/2/2024</b>     |           | RunNo: <b>99428</b>   |       |          |      |
|------------------------------------|--------|-------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>20ZVI-EFF-042525</b> |        | Batch ID: <b>R99428</b> |           |                    |      | Analysis Date: <b>5/2/2024</b> |           | SeqNo: <b>2071097</b> |       |          |      |
| Analyte                            | Result | RL                      | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Total Organic Carbon               | 23.6   | 0.700                   | 25.00     | 2.430              | 84.5 | 85                             | 115       | 23.68                 | 0.525 | 15       | S    |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed and recovered within range.



**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

| Sample ID: <b>MB-47613</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072269</b> |      |          |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                    | ND     | 250                    |           |                    |      |                                |           |                       |      |          |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                                |           |                       |      |          |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                                |           |                       |      |          |      |
| Sodium                     | ND     | 100                    |           |                    |      |                                |           |                       |      |          |      |

| Sample ID: <b>LCS-47613</b> |        | SampType: <b>LCS</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072270</b> |      |          |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                     | 936    | 250                    | 1,000     | 0                  | 93.6 | 80                             | 120       |                       |      |          |      |
| Magnesium                   | 1,000  | 50.0                   | 1,000     | 0                  | 100  | 80                             | 120       |                       |      |          |      |
| Potassium                   | 981    | 50.0                   | 1,000     | 0                  | 98.1 | 80                             | 120       |                       |      |          |      |
| Sodium                      | 1,010  | 100                    | 1,000     | 0                  | 101  | 80                             | 120       |                       |      |          |      |

| Sample ID: <b>2504661-001DMS</b> |        | SampType: <b>MS</b>    |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|----------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072272</b> |      |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                          | 61,100 | 250                    | 1,000     | 62,530             | -145 | 75                             | 125       |                       |      |          | S    |
| Magnesium                        | 6,310  | 50.0                   | 1,000     | 5,559              | 75.1 | 75                             | 125       |                       |      |          |      |
| Potassium                        | 4,670  | 50.0                   | 1,000     | 3,892              | 77.8 | 75                             | 125       |                       |      |          |      |
| Sodium                           | 15,600 | 100                    | 1,000     | 15,220             | 43.0 | 75                             | 125       |                       |      |          | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

| Sample ID: <b>2504661-001DMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |       |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072274</b> |       |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Calcium                           | 60,500 | 250                    | 1,000     | 62,530             | -205 | 75                             | 125       | 61,080                | 0.984 | 20       | S    |
| Magnesium                         | 6,280  | 50.0                   | 1,000     | 5,559              | 72.1 | 75                             | 125       | 6,310                 | 0.478 | 20       | S    |

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

| Sample ID: <b>2504661-001DMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |        |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|--------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072274</b> |        |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD   | RPDLimit | Qual |
| Potassium                         | 4,670  | 50.0                   | 1,000     | 3,892              | 77.6 | 75                             | 125       | 4,669                 | 0.0338 | 20       |      |
| Sodium                            | 15,400 | 100                    | 1,000     | 15,220             | 13.7 | 75                             | 125       | 15,650                | 1.88   | 20       | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

## QC SUMMARY REPORT

Total Metals by EPA 6020B

|                            |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47533</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/29/2025</b> |                                 |             | RunNo: <b>99350</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47533</b> |           |                    |      |                             | Analysis Date: <b>4/29/2025</b> |             |                     | SeqNo: <b>2069259</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                    | ND     | 60.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Sodium                     | ND     | 100                    |           |                    |      |                             |                                 |             |                     |                       |      |

| Sample ID: <b>LCS-47533</b> | SampType: <b>LCS</b>   | Units: <b>µg/L</b> |           |             |      | Prep Date: <b>4/29/2025</b>     |           |             | RunNo: <b>99350</b>   |          |      |
|-----------------------------|------------------------|--------------------|-----------|-------------|------|---------------------------------|-----------|-------------|-----------------------|----------|------|
| Client ID: <b>LCSW</b>      | Batch ID: <b>47533</b> |                    |           |             |      | Analysis Date: <b>4/29/2025</b> |           |             | SeqNo: <b>2069260</b> |          |      |
| Analyte                     | Result                 | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                     | 1,020                  | 60.0               | 1,000     | 0           | 102  | 80                              | 120       |             |                       |          |      |
| Magnesium                   | 1,020                  | 50.0               | 1,000     | 0           | 102  | 80                              | 120       |             |                       |          |      |
| Potassium                   | 1,010                  | 50.0               | 1,000     | 0           | 101  | 80                              | 120       |             |                       |          |      |
| Sodium                      | 1,020                  | 100                | 1,000     | 0           | 102  | 80                              | 120       |             |                       |          |      |

| Sample ID: <b>2504624-003DMS</b> | SampType: <b>MS</b>    | Units: <b>µg/L</b> |           |             |      | Prep Date: <b>4/29/2025</b>     |           |             | RunNo: <b>99350</b>   |          |      |
|----------------------------------|------------------------|--------------------|-----------|-------------|------|---------------------------------|-----------|-------------|-----------------------|----------|------|
| Client ID: <b>BATCH</b>          | Batch ID: <b>47533</b> |                    |           |             |      | Analysis Date: <b>4/29/2025</b> |           |             | SeqNo: <b>2069262</b> |          |      |
| Analyte                          | Result                 | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                          | 19,300                 | 60.0               | 1,000     | 18,050      | 126  | 75                              | 125       |             |                       |          | ES   |
| Magnesium                        | 2,550                  | 50.0               | 1,000     | 1,522       | 103  | 75                              | 125       |             |                       |          |      |
| Potassium                        | 7,130                  | 50.0               | 1,000     | 6,038       | 109  | 75                              | 125       |             |                       |          | E    |
| Sodium                           | 13,000                 | 100                | 1,000     | 11,820      | 121  | 75                              | 125       |             |                       |          | E    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                   |                        |                    |           |             |      |                                 |           |             |       |                       |      |
|-----------------------------------|------------------------|--------------------|-----------|-------------|------|---------------------------------|-----------|-------------|-------|-----------------------|------|
| Sample ID: <b>2504624-003DMSD</b> | SampType: <b>MSD</b>   | Units: <b>µg/L</b> |           |             |      | Prep Date: <b>4/29/2025</b>     |           |             |       | RunNo: <b>99350</b>   |      |
| Client ID: <b>BATCH</b>           | Batch ID: <b>47533</b> |                    |           |             |      | Analysis Date: <b>4/29/2025</b> |           |             |       | SeqNo: <b>2069264</b> |      |
| Analyte                           | Result                 | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD  | RPDLimit              | Qual |
| Calcium                           | 19,400                 | 60.0               | 1,000     | 18,050      | 139  | 75                              | 125       | 19,310      | 0.669 | 20                    | ES   |
| Magnesium                         | 2,560                  | 50.0               | 1,000     | 1,522       | 104  | 75                              | 125       | 2,550       | 0.477 | 20                    |      |

**Work Order:** 2504663  
**CLIENT:** Friedman & Bruya  
**Project:** 504435

**QC SUMMARY REPORT**  
**Total Metals by EPA 6020B**

|                                   |        |                        |           |             |                                 |          |                             |             |                       |          |      |
|-----------------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504624-003DMSD</b> |        | SampType: <b>MSD</b>   |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/29/2025</b> |             | RunNo: <b>99350</b>   |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47533</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             |             | SeqNo: <b>2069264</b> |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Potassium                         | 7,170  | 50.0                   | 1,000     | 6,038       | 113                             | 75       | 125                         | 7,132       | 0.482                 | 20       | E    |
| Sodium                            | 13,000 | 100                    | 1,000     | 11,820      | 123                             | 75       | 125                         | 13,030      | 0.129                 | 20       | E    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Client Name: FB

Work Order Number: 2504663

Logged by: Morgan Wilson

Date Received: 4/28/2025 2:36:00 PM

## Chain of Custody

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

## Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☐ No ☒

## Special Handling (if applicable)

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

|                      |                                               |       |                                                                                                                                          |
|----------------------|-----------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text" value="Michael Erdahl"/>   | Date: | <input type="text" value="4/28/2025"/>                                                                                                   |
| By Whom:             | <input type="text" value="Morgan Wilson"/>    | Via:  | <input checked="" type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text" value="Anions Hold Time"/> |       |                                                                                                                                          |
| Client Instructions: | <input type="text"/>                          |       |                                                                                                                                          |

17. Additional remarks:

## Item Information

| Item # | Temp °C |
|--------|---------|
| Sample | 4.0     |

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

## Page # 1 of 1

WTPNABOIND TIME

☒ Standard TAT All Std TAT  
☒ ~~RUSH T/D Cations 24 hr TAT~~  
Rush charges authorized by:

Rush charges authorized by:

**SAMPLE DISPOSAL,**  
pose after 30 days

**Return samples  
Will call with instructions**

Page # 1 of 1

TURNAROUND TIME

☒ Standard TAT All States

☒ RUSH TAT 24 hr TAT

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

| ANALYSES REQUESTED                                                                                                    |        |              |              |        |                                                                                   |        |            |                |     |          |                               |                                   |         |                   |  |
|-----------------------------------------------------------------------------------------------------------------------|--------|--------------|--------------|--------|-----------------------------------------------------------------------------------|--------|------------|----------------|-----|----------|-------------------------------|-----------------------------------|---------|-------------------|--|
| Sample ID                                                                                                             | Lab ID | Date Sampled | Time Sampled | Matrix | # of jars                                                                         | Anions | Alkalinity | TOC            | TDS | Salinity | Total Cations (Mg, K, Na, Ca) | Dissolved Cations (Mg, K, Na, Ca) |         | Notes             |  |
| Control-Eff-042525                                                                                                    |        | 4/25/2025    | 925          | water  | 4                                                                                 | x      | x          | x              | x   | x        | x                             | x                                 |         |                   |  |
| Control-INF-042525                                                                                                    |        | 4/25/2025    | 1325         | water  |                                                                                   |        |            |                |     |          |                               |                                   |         | Hold              |  |
| 20ZVI-EFF-042525                                                                                                      |        | 4/25/2025    | 930          | water  |                                                                                   | x      | x          | x              | x   | x        | x                             | x                                 |         |                   |  |
| 20ZVI-INF-042525                                                                                                      |        | 4/25/2025    | 1330         | water  |                                                                                   |        |            |                |     |          |                               |                                   |         | Hold              |  |
| 50ZVI-EFF-042525                                                                                                      |        | 4/25/2025    | 935          | water  |                                                                                   | x      | x          | x              | x   | x        | x                             | x                                 |         |                   |  |
| 50ZVI-INF-042525                                                                                                      |        | 4/25/2025    | 1335         | water  |                                                                                   |        |            |                |     |          |                               |                                   |         | Hold              |  |
| INFLUENT-042525                                                                                                       |        | 4/25/2025    | 1340         | water  | ↖                                                                                 | x      | x          | x              | x   | x        | x                             | x                                 |         |                   |  |
|                                                                                                                       |        |              |              |        |                                                                                   |        |            |                |     |          |                               |                                   |         | anions=Br, Cl, F, |  |
|                                                                                                                       |        |              |              |        |                                                                                   |        |            |                |     |          |                               |                                   |         | SO4, NO2, NO3,    |  |
|                                                                                                                       |        |              |              |        |                                                                                   |        |            |                |     |          |                               |                                   |         | PO4               |  |
|                                                                                                                       |        |              |              |        |                                                                                   |        |            |                |     |          |                               |                                   |         |                   |  |
|                                                                                                                       |        |              |              |        |                                                                                   |        |            |                |     |          |                               |                                   |         |                   |  |
| Friedman & Bruya, Inc.<br>3012 16th Avenue West<br>Seattle, WA 98119-2029<br>Ph. (206) 285-8282<br>Fax (206) 283-5044 |        |              |              |        | SIGNATURE                                                                         |        |            | PRINT NAME     |     |          | COMPANY                       |                                   | DATE    | TIME              |  |
|                                                                                                                       |        |              |              |        |  |        |            | Michael Erdahl |     |          | Friedman & Bruya              |                                   | 4/25/25 | 0845              |  |
|                                                                                                                       |        |              |              |        |  |        |            | John Hawthorne |     |          |                               |                                   | 4/28/25 | 1436              |  |
|                                                                                                                       |        |              |              |        | Received by:                                                                      |        |            |                |     |          |                               |                                   |         |                   |  |
|                                                                                                                       |        |              |              |        | Relinquished by:                                                                  |        |            |                |     |          |                               |                                   |         |                   |  |
|                                                                                                                       |        |              |              |        | Received by:                                                                      |        |            |                |     |          |                               |                                   |         |                   |  |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

April 30, 2025

Andrew Yonkofski, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on April 25, 2025 from the Glacier Northwest AS230067, F&BI 504435 project. There are 41 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Marc Chalfant, Andrew Yonkofski  
ASP0430R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 25, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504435 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504435 -01           | Control-EFF-042525       |
| 504435 -02           | Control-PORT3-042525     |
| 504435 -03           | Control-PORT2-042525     |
| 504435 -04           | Control-PORT1-042525     |
| 504435 -05           | Control-INF-042525       |
| 504435 -06           | 20ZVI-EFF-042525         |
| 504435 -07           | 20ZVI-PORT3-042525       |
| 504435 -08           | 20ZVI-PORT2-042525       |
| 504435 -09           | 20ZVI-PORT1-042525       |
| 504435 -10           | 20ZVI-INF-042525         |
| 504435 -11           | 50ZVI-EFF-042525         |
| 504435 -12           | 50ZVI-PORT3-042525       |
| 504435 -13           | 50ZVI-PORT2-042525       |
| 504435 -14           | 50ZVI-PORT1-042525       |
| 504435 -15           | 50ZVI-INF-042525         |
| 504435 -16           | INFLUENT-042525          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, F, Br) were sent to Alliance Technical Group for testing. The report will be forwarded upon receipt.

All quality control requirements were acceptable.



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-01 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504435-01 x5.383           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
| Copper  | 4.4 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT3-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-02 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504435-02 x5.440           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 4.4 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT3-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-02 x5               |
| Date Analyzed:    | 04/30/25             | Data File:  | 504435-02 x5.313           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 350 |
|---------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT2-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-03 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504435-03 x5.443           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 3.7 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT2-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-03 x5               |
| Date Analyzed:    | 04/30/25             | Data File:  | 504435-03 x5.314           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 320 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT1-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-04 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504435-04 x5.444           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 2.6 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT1-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-04 x5               |
| Date Analyzed:    | 04/30/25             | Data File:  | 504435-04 x5.315           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 330 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-06 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504435-06 x5.384           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | <1  |
| Copper  | 6.7 |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT3-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-07 x50              |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-07 x50.316          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |       |
|---------|-------|
| Arsenic | 20    |
| Copper  | 1,000 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT2-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-08 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504435-08 x5.446           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 9.1 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT2-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-08 x5               |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-08 x5.318           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 110 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT1-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-09 x5               |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-09 x5.320           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 190 |
| Copper  | 4.8 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-11 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504435-11 x5.385           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT3-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-12 x5               |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-12 x5.324           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 3.6 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT3-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-12 x50              |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-12 x50.323          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 550 |
|--------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT2-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-13 x5               |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-13 x5.325           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 3.8  |
| Copper  | <2.5 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT1-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-14 x10              |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-14 x10.326          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 23  |
| Copper  | 150 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504435-16 x5               |
| Date Analyzed:    | 04/29/25        | Data File:  | 504435-16 x5.386           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 730 |
| Copper  | 3.3 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-353 mb                  |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-353 mb.156              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <0.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-351 mb                  |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-351 mb.055              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <0.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-01 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504435-01 x5.367           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
| Copper  | 3.7 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT3-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-02 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504435-02 x5.409           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 330 |
| Copper  | 4.4 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT2-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-03 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504435-03 x5.410           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 310  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT1-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25             | Lab ID:     | 504435-04 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504435-04 x5.411           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 300 |
| Copper  | 3.1 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-06 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504435-06 x5.368           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT3-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-07 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504435-07 x5.412           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 2.2 |
| Copper  | 8.4 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT2-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-08 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504435-08 x5.413           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 25  |
| Copper  | 2.7 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT1-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-09 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504435-09 x5.414           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 160 |
| Copper  | 8.6 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504435-11 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504435-11 x5.371           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT3-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-12 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504435-12 x5.415           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | <1  |
| Copper  | 5.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT2-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-13 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504435-13 x5.416           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 2.3  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT1-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504435-14 x5               |
| Date Analyzed:    | 04/30/25           | Data File:  | 504435-14 x5.327           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 9.7  |
| Copper  | <2.5 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042525 | Client:     | Aspect Consulting          |
| Date Received:    | 04/25/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504435-16 x5               |
| Date Analyzed:    | 04/29/25        | Data File:  | 504435-16 x5.372           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 740 |
| Copper  | 3.3 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-357 mb                  |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-357 mb.167              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <0.5 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-359 mb                  |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-359 mb.254              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |      |
|-----------|------|
| Arsenic   | <0.2 |
| Copper    | <0.5 |
| Iron      | <50  |
| Manganese | <1   |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/30/25

Date Received: 04/25/25

Project: Glacier Northwest AS230067, F&BI 504435

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 504410-06 (Matrix Spike)

| Analyte | Reporting<br>Units | Spike<br>Level | Sample<br>Result | Percent<br>Recovery<br>MS | Percent<br>Recovery<br>MSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|------------------|---------------------------|----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 15.4             | 98 b                      | 95 b                       | 75-125                 | 3 b               |
| Copper  | ug/L (ppb)         | 20             | 0.932            | 86                        | 85                         | 75-125                 | 1                 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Acceptance<br>Criteria |
|---------|--------------------|----------------|----------------------------|------------------------|
| Arsenic | ug/L (ppb)         | 10             | 95                         | 80-120                 |
| Copper  | ug/L (ppb)         | 20             | 97                         | 80-120                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/30/25

Date Received: 04/25/25

Project: Glacier Northwest AS230067, F&BI 504435

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 504402-01 x20 (Matrix Spike)

| Analyte | Reporting<br>Units | Spike<br>Level | Sample<br>Result | Percent<br>Recovery<br>MS | Percent<br>Recovery<br>MSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|------------------|---------------------------|----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 4.92             | 115 b                     | 105 b                      | 75-125                 | 9 b               |
| Copper  | ug/L (ppb)         | 20             | 115              | 143 b                     | 78 b                       | 75-125                 | 59 b              |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Acceptance<br>Criteria |
|---------|--------------------|----------------|----------------------------|------------------------|
| Arsenic | ug/L (ppb)         | 10             | 102                        | 80-120                 |
| Copper  | ug/L (ppb)         | 20             | 103                        | 80-120                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/30/25

Date Received: 04/25/25

Project: Glacier Northwest AS230067, F&BI 504435

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 94                         | 92                          | 80-120                 | 2                 |
| Copper  | ug/L (ppb)         | 20             | 96                         | 94                          | 80-120                 | 2                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/30/25

Date Received: 04/25/25

Project: Glacier Northwest AS230067, F&BI 504435

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 90                         | 89                          | 80-120                 | 1                 |
| Copper  | ug/L (ppb)         | 20             | 99                         | 98                          | 80-120                 | 1                 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



504435 Andrew Jonkotski

Debra Massey; Marc Chantant

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA, 98104

Phone 206-413-5407 Email Debra.massey@aspect.com

SAMPLE CHAIN OF CUSTODY

04-25-25

54

SAMPLERS (signature)

Emily Rusan

PO #

PROJECT NAME

AS230067

REMARKS

Field filters for TPD metals

INVOICE TO

Please invoice through Coupa

Page # 1 of 2

TURNAROUND TIME

Standard turnaround 24 hr - 5 days  
Rush charges authorized by: [Signature]  
As and Cu 24 hr TAT per MC 04/28/25 ME

SAMPLE DISPOSAL

☐ Archive samples  
☐ Other

Default: Dispose after 30 days

| 5m 2540-16              |        |              |              |             |           |                                     |                      |                        |               |                                | ANALYSES REQUESTED     |               |                            |               |                         |               |                                                        |                                                            |                                                       |       |                                 |
|-------------------------|--------|--------------|--------------|-------------|-----------|-------------------------------------|----------------------|------------------------|---------------|--------------------------------|------------------------|---------------|----------------------------|---------------|-------------------------|---------------|--------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|-------|---------------------------------|
| Sample ID               | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | Total Dissolved Solids (5m 2540-16) | Salinity (5m 2520-B) | Alkalinity (5m 3220-B) | BTEX EPA 8021 | Total Organic Carbon (5m 3100) | Total As + Cu (6020-B) | VOCs EPA 8260 | Dissolved As + Cu (6020-B) | PAHs EPA 8270 | B, Cl, F, SO4 (EPA 300) | PCBs EPA 8082 | Total Metals (As, Cd, Cu, Fe, Mn, Ni, Pb, Zn) (6020-B) | Dissolved Metals (As, Cd, Cu, Fe, Mn, Ni, Pb, Zn) (6020-B) | NO3 as N, NO2 as N, or phosphate as PO43- (EPA 300.0) | Notes |                                 |
| Control - EFF-042525    | 01 A-D | 4/25/25      | 0925         | W           | 4         | X                                   | X                    | X                      | X             | X                              |                        |               |                            |               | X                       | X             | X                                                      | X                                                          | X                                                     | X     | PUSH TAT for TPD metals         |
| Control - Port 3-042525 | 02 A-B |              | 1030         |             | 2         |                                     |                      |                        |               |                                | X                      | X             |                            |               |                         |               |                                                        |                                                            |                                                       |       |                                 |
| Control - Port 2-042525 | 03     |              | 1115         |             | 2         |                                     |                      |                        |               |                                | X                      | X             | X                          | X             |                         |               |                                                        |                                                            |                                                       |       |                                 |
| Control - Port 1-042525 | 04     |              | 1215         |             | 2         |                                     |                      |                        |               |                                | X                      | X             | X                          | X             |                         |               |                                                        |                                                            |                                                       |       |                                 |
| Control - INF-042525    | 05 A-D |              | 1325         |             | 4         | X                                   | X                    | X                      | X             | X                              |                        |               |                            |               | X                       | X             | X                                                      | X                                                          | X                                                     | X     | HOLD<br>PUSH TAT for TPD metals |
| 20 ZVI - EFF-042525     | 06 A-D |              | 0930         |             | 4         | X                                   | X                    | X                      | X             | X                              |                        |               |                            |               | X                       | X             | X                                                      | X                                                          | X                                                     |       |                                 |
| 20 ZVI - Port 3-042525  | 07 A-B |              | 1035         |             | 2         |                                     |                      |                        |               |                                | X                      | X             | X                          | X             |                         |               |                                                        |                                                            |                                                       |       |                                 |
| 20 ZVI - Port 2-042525  | 08     |              | 1120         |             | 2         |                                     |                      |                        |               |                                | X                      | X             | X                          | X             |                         |               |                                                        |                                                            |                                                       |       |                                 |
| 20 ZVI - Port 1-042525  | 09     |              | 1220         |             | 2         |                                     |                      |                        |               |                                | X                      | X             | X                          | X             |                         |               |                                                        |                                                            |                                                       |       |                                 |
| 20 ZVI - INF-042525     | 10 A-D |              | 1330         |             | 4         | X                                   | X                    | X                      | X             | X                              |                        |               |                            |               | X                       | X             | X                                                      | X                                                          | X                                                     | X     | HOLD                            |
|                         |        |              |              |             |           |                                     |                      |                        |               |                                |                        |               |                            |               |                         |               |                                                        |                                                            |                                                       |       |                                 |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman & Bruya, Inc.  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

Relinquished by: Emily Rusan

Relinquished by: Marc Chantant

ASPECT

4/25/25 1608

Received by:

Samples received at 4:00

504435

Andrew Jonkotski

Report To Delia Massey, Marc ChalcantCompany Aspect ConsultingAddress 710 2nd Ave, Suite 550City, State, ZIP Seattle, WA, 98104Phone 206-413-5407 Email Delia.Massey@geosyntec.com

SAMPLE CHAIN OF CUSTODY 04-25-25

J4

Page # 2 of 2SAMPLERS (signature)  
Emily RustenPROJECT NAME  
Glacier NorthwestPO #  
AS230067REMARKS  
Field filtered to rTP metalsINVOICE TO  
Please invoice through Courpa

TURNAROUND TIME

☒ Standard turnaround  
☒ Rush charges authorized by: ER

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

| Sample ID                | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                                                                                                   |                                                                                                        |                                                                                                               |                                                                                                                      |                                                                                                                |                                                                                                                    |                                                                                                                                |                                                                                          |                                                                                              |                                                                                                                                                  | Notes                           |
|--------------------------|--------|--------------|--------------|-------------|-----------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 50ZV1-EFF-042525         | 11A-D  | 4/25/25      | 0935         | W           | 4         | <input checked="" type="checkbox"/> Total Dissolved Solids (5m2520B)<br><input checked="" type="checkbox"/> NWTPH-Dx | <input checked="" type="checkbox"/> Salinity (5m2520B)<br><input checked="" type="checkbox"/> NWTPH-Cx | <input checked="" type="checkbox"/> Alkalinity (5m2320B)<br><input checked="" type="checkbox"/> BTEX EPA 8021 | <input checked="" type="checkbox"/> Total Organic Carbon (5m6020B)<br><input checked="" type="checkbox"/> NWTPH-HCID | <input checked="" type="checkbox"/> Total As + Cu (6020B)<br><input checked="" type="checkbox"/> VOCs EPA 8260 | <input checked="" type="checkbox"/> Dissolved As + Cu (6020B)<br><input checked="" type="checkbox"/> PAHs EPA 8270 | <input checked="" type="checkbox"/> B,Cu, Fe, SO <sub>4</sub> (EPA 300.0)<br><input checked="" type="checkbox"/> PCBs EPA 8082 | <input checked="" type="checkbox"/> Total Metals (As, Ca, Cu, Mn, Mg, Fe, K, Na) (6020B) | <input checked="" type="checkbox"/> Dissolved Metals (As, Ca, Cu, Fe, Mn, Mg, K, Ni) (6020B) | <input checked="" type="checkbox"/> NO <sub>3</sub> , NO <sub>2</sub> , NH <sub>4</sub> <sup>+</sup> , PO <sub>4</sub> <sup>3-</sup> (EPA 300.0) | <u>ER</u>                       |
| 50ZV1-PORT3-042525       | 12A-B  | 4/25/25      | 1040         | W           | 2         |                                                                                                                      |                                                                                                        |                                                                                                               |                                                                                                                      | <input checked="" type="checkbox"/>                                                                            |                                                                                                                    |                                                                                                                                |                                                                                          |                                                                                              |                                                                                                                                                  | <u>RUSH INTP FOR TP METALS</u>  |
| <del>50ZV1-PORT</del> ER |        |              |              |             |           |                                                                                                                      |                                                                                                        |                                                                                                               |                                                                                                                      |                                                                                                                |                                                                                                                    |                                                                                                                                |                                                                                          |                                                                                              |                                                                                                                                                  |                                 |
| 50ZV1-PORT2-042525       | 13A-B  | 4/25/25      | 1125         | W           | 2         |                                                                                                                      |                                                                                                        |                                                                                                               |                                                                                                                      | <input checked="" type="checkbox"/>                                                                            | <input checked="" type="checkbox"/>                                                                                |                                                                                                                                |                                                                                          |                                                                                              |                                                                                                                                                  |                                 |
| 50ZV1-PORT1-042525       | 14A-B  |              | 1225         |             | 2         |                                                                                                                      |                                                                                                        |                                                                                                               |                                                                                                                      | <input checked="" type="checkbox"/>                                                                            | <input checked="" type="checkbox"/>                                                                                |                                                                                                                                |                                                                                          |                                                                                              |                                                                                                                                                  |                                 |
| 50ZV1-INF-042525         | 15A-D  |              | 1335         |             | 4         | <input checked="" type="checkbox"/>                                                                                  | <input checked="" type="checkbox"/>                                                                    | <input checked="" type="checkbox"/>                                                                           | <input checked="" type="checkbox"/>                                                                                  | <input checked="" type="checkbox"/>                                                                            | <input checked="" type="checkbox"/>                                                                                | <input checked="" type="checkbox"/>                                                                                            | <input checked="" type="checkbox"/>                                                      | <input checked="" type="checkbox"/>                                                          | <input checked="" type="checkbox"/>                                                                                                              | <u>HOLD</u>                     |
| INFLUENT-042525          | 16A-D  |              | 1340         |             | 4         | <input checked="" type="checkbox"/>                                                                                  | <input checked="" type="checkbox"/>                                                                    | <input checked="" type="checkbox"/>                                                                           | <input checked="" type="checkbox"/>                                                                                  |                                                                                                                | <input checked="" type="checkbox"/>                                                                                | <input checked="" type="checkbox"/>                                                                                            | <input checked="" type="checkbox"/>                                                      | <input checked="" type="checkbox"/>                                                          | <input checked="" type="checkbox"/>                                                                                                              | <u>Samples received at 4:00</u> |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman &amp; Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

Relinquished by:

Emily Rusten

PRINT NAME

COMPANY

DATE

TIME

Received by:

Emily Rusten

PRINT NAME

COMPANY

DATE

TIME

Relinquished by:

Emily Rusten

PRINT NAME

COMPANY

DATE

TIME

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504435 CLIENT Aspect INITIALS/DATE: (Signature) 4/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 4 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/Date: (Signature) 4/28  
\*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label? (explain "no" answer below)

|                    |                                                                          |                                           |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 6, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the additional results from the testing of material submitted on April 28, 2025 from the Glacier Northwest AS230067, F&BI 504443 project. There are 37 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Marc Chalfant, Andrew Yonkofski  
ASP0506R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 28, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504443 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504443 -01           | Control-EFF-042625       |
| 504443 -02           | Control-PORT3-042625     |
| 504443 -03           | Control-PORT2-042625     |
| 504443 -04           | Control-PORT1-042625     |
| 504443 -05           | 20ZVI-EFF-042625         |
| 504443 -06           | 20ZVI-PORT3-042625       |
| 504443 -07           | 20ZVI-PORT2-042625       |
| 504443 -08           | 20ZVI-PORT1-042625       |
| 504443 -09           | 50ZVI-EFF-042625         |
| 504443 -10           | 50ZVI-PORT3-042625       |
| 504443 -11           | 50ZVI-PORT2-042625       |
| 504443 -12           | 50ZVI-PORT1-042625       |
| 504443 -13           | INFLUENT-042625          |
| 504443 -14           | Control-EFF-042725       |
| 504443 -15           | Control-PORT3-042725     |
| 504443 -16           | Control-PORT2-042725     |
| 504443 -17           | Control-PORT1-042725     |
| 504443 -18           | 20ZVI-EFF-042725         |
| 504443 -19           | 20ZVI-PORT3-042725       |
| 504443 -20           | 20ZVI-PORT2-042725       |
| 504443 -21           | 20ZVI-PORT1-042725       |
| 504443 -22           | 50ZVI-EFF-042725         |
| 504443 -23           | 50ZVI-PORT3-042725       |
| 504443 -24           | 50ZVI-PORT2-042725       |
| 504443 -25           | 50ZVI-PORT1-042725       |
| 504443 -26           | INFLUENT-042725          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, Fl, Br) were PRINTINGHEREsent to Alliance Technical Group for testing. The report is enclosed.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504443-01 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504443-01 x5.246           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 310 |
|------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504443-01 x100             |
| Date Analyzed:    | 05/02/25           | Data File:  | 504443-01 x100.161         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 570 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-05 x100             |
| Date Analyzed:    | 05/02/25         | Data File:  | 504443-05 x100.162         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 790 |
|-----------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-05 x500             |
| Date Analyzed:    | 05/01/25         | Data File:  | 504443-05 x500.247         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |         |
|------|---------|
| Iron | 110,000 |
|------|---------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-09 x100             |
| Date Analyzed:    | 05/02/25         | Data File:  | 504443-09 x100.163         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 330 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-09 x250             |
| Date Analyzed:    | 05/01/25         | Data File:  | 504443-09 x250.248         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |        |
|------|--------|
| Iron | 56,000 |
|------|--------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504443-13 x100             |
| Date Analyzed:    | 05/02/25        | Data File:  | 504443-13 x100.164         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 15,000 |
| Manganese | 150    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504443-14 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504443-14 x5.259           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 270 |
|------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504443-14 x100             |
| Date Analyzed:    | 05/02/25           | Data File:  | 504443-14 x100.173         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 600 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-18 x100             |
| Date Analyzed:    | 05/02/25         | Data File:  | 504443-18 x100.174         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 740 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-18 x500             |
| Date Analyzed:    | 05/01/25         | Data File:  | 504443-18 x500.260         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |         |
|------|---------|
| Iron | 120,000 |
|------|---------|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-22 x100             |
| Date Analyzed:    | 05/02/25         | Data File:  | 504443-22 x100.175         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 460 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-22 x500             |
| Date Analyzed:    | 05/01/25         | Data File:  | 504443-22 x500.261         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |        |
|------|--------|
| Iron | 80,000 |
|------|--------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504443-26 x100             |
| Date Analyzed:    | 05/02/25        | Data File:  | 504443-26 x100.176         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 14,000 |
| Manganese | 150    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-358 mb                  |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-358 mb.170              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Iron      | <50 |
| Manganese | <1  |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504443-01 x2               |
| Date Analyzed:    | 04/30/25           | Data File:  | 504443-01 x2.320           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 300 |
|------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504443-01 x50              |
| Date Analyzed:    | 04/30/25           | Data File:  | 504443-01 x50.321          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 530 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-05 x400             |
| Date Analyzed:    | 04/30/25         | Data File:  | 504443-05 x400.322         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 88,000 |
| Manganese | 740    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-09 x100             |
| Date Analyzed:    | 04/30/25         | Data File:  | 504443-09 x100.324         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 350 |
|-----------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-09 x400             |
| Date Analyzed:    | 04/30/25         | Data File:  | 504443-09 x400.323         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |        |
|------|--------|
| Iron | 49,000 |
|------|--------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504443-13 x100             |
| Date Analyzed:    | 04/30/25        | Data File:  | 504443-13 x100.325         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 13,000 |
| Manganese | 130    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504443-14 x2               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504443-14 x2.330           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 270 |
|------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25           | Lab ID:     | 504443-14 x100             |
| Date Analyzed:    | 04/30/25           | Data File:  | 504443-14 x100.326         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 560 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-18 x500             |
| Date Analyzed:    | 05/01/25         | Data File:  | 504443-18 x500.331         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |         |
|-----------|---------|
| Iron      | 120,000 |
| Manganese | 1,100   |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-22 x100             |
| Date Analyzed:    | 05/01/25         | Data File:  | 504443-22 x100.333         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 440 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25         | Lab ID:     | 504443-22 x500             |
| Date Analyzed:    | 05/01/25         | Data File:  | 504443-22 x500.332         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |        |
|------|--------|
| Iron | 77,000 |
|------|--------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25        | Lab ID:     | 504443-26 x100             |
| Date Analyzed:    | 05/01/25        | Data File:  | 504443-26 x100.334         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 14,000 |
| Manganese | 140    |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/28/25       | Lab ID:     | I5-352 mb                  |
| Date Analyzed:    | 04/28/25       | Data File:  | I5-352 mb.057              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Iron      | <50 |
| Manganese | <1  |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504443-01 1/25             |
| Date Analyzed:    | 04/30/25           | Data File:  | 043007.D                   |
| Matrix:           | Water              | Instrument: | GCMS9                      |
| Units:            | ug/L (ppb)         | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 174 d       | 22           | 158          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 710                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042625 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25        | Lab ID:     | 504443-13 1/25             |
| Date Analyzed:    | 04/30/25        | Data File:  | 043008.D                   |
| Matrix:           | Water           | Instrument: | GCMS9                      |
| Units:            | ug/L (ppb)      | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 170 d       | 22           | 158          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 570                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042725 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504443-22 1/0.5            |
| Date Analyzed:    | 04/30/25         | Data File:  | 043010.D                   |
| Matrix:           | Water            | Instrument: | GCMS9                      |
| Units:            | ug/L (ppb)       | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 84          | 22           | 158          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 16                          |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/05       | Lab ID:     | 05-1021 mb2 1/0.5          |
| Date Analyzed:    | 04/29/25       | Data File:  | 042909.D                   |
| Matrix:           | Water          | Instrument: | GCMS9                      |
| Units:            | ug/L (ppb)     | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 61          | 22           | 158          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | <0.2                        |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504443

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Iron      | ug/L (ppb)         | 100            | 84                         | 88                          | 80-120                 | 5                 |
| Manganese | ug/L (ppb)         | 20             | 90                         | 91                          | 80-120                 | 1                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504443

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: 504405-01 (Matrix Spike)

| Analyte   | Reporting<br>Units | Spike<br>Level | Sample<br>Result | Percent<br>Recovery<br>MS | Percent<br>Recovery<br>MSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|------------------|---------------------------|----------------------------|------------------------|-------------------|
| Iron      | ug/L (ppb)         | 100            | 280              | 119 b                     | 140 b                      | 75-125                 | 16 b              |
| Manganese | ug/L (ppb)         | 20             | 169              | 52 b                      | 59 b                       | 75-125                 | 13 b              |

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Acceptance<br>Criteria |
|-----------|--------------------|----------------|----------------------------|------------------------|
| Iron      | ug/L (ppb)         | 100            | 88                         | 80-120                 |
| Manganese | ug/L (ppb)         | 20             | 101                        | 80-120                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504443

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E**

Laboratory Code: Laboratory Control Sample

| Analyte           | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-------------------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Pentachlorophenol | ug/L (ppb)         | 10             | 86                         | 100                         | 10-144                 | 15                |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Andrew Jon Kofski

## C2/J4

1 of 3

Company Aspect Consulting

Address 710 2nd Ave, Suite 550

City, State, ZIP Seattle, WA, 98104

Phone 206-413-5407 Email [Devia.Massey@creaspartel.com](mailto:Devia.Massey@creaspartel.com)

### SAMPLERS (signature)

PROJECT NAME

Glacier Northwest

PO#

**INVOICE TO**

Feast invoice  
Through coupon

Project specific RLS? - Yes / No

TURNAROUND TIME  
As+Cu only rush per MC 04/28/25

☐ Standard turnaround All metals  
X RUSH 24hr - 1hr - Analyses

Rush charges authorized by:  
See Email from Marc C.

SAMPLE DISPOSAL

☐ Archive samples

☐ Other \_\_\_\_\_

Default: Dispose after 30 days

## SAMPLE DISPOSAL

☐ Archive samples☐ Other \_\_\_\_\_

Default: Dispose after 30 days

| Sample ID              | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                                                             |                                                                  |                                                                         |                                                                     |                                                                         |                                                                             |                                                                              |                                                                                          |                                                                                              |                                                                                               | Notes                                                 |                                                |
|------------------------|--------|--------------|--------------|-------------|-----------|--------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------|
| Control - EFF-042625   | 01 A-E | 4/26/25      | 0930         | W           | 2         | <input checked="" type="checkbox"/> Total Dissolved Solids (SM 2520B) NWTPH-D* | <input checked="" type="checkbox"/> Salinity (SM 2520B) NWTPH-G* | <input checked="" type="checkbox"/> Alkalinity (SM 2520B) BTEX EPA 8021 | <input checked="" type="checkbox"/> Total Organic Carbon NWTPH-HCID | <input checked="" type="checkbox"/> Total As + Cu (6020B) VOCs EPA 8260 | <input checked="" type="checkbox"/> Dissolved As + Cu (6020B) PAHs EPA 8270 | <input checked="" type="checkbox"/> Br, Cl, F, SO4 (EPA 800.0) PCBs EPA 8082 | <input checked="" type="checkbox"/> Total Metals (As, Cd, Cu, Fe, Mn, Mg, K, Na) (6020B) | <input checked="" type="checkbox"/> Dissolved Metals (As, Cd, Cu, Fe, Mn, Mg, K, Na) (6020B) | <input checked="" type="checkbox"/> NO3, As, N, NO2, As, N, orthophosphate as PO4 (EPA 300.0) | <input checked="" type="checkbox"/> PCP (SM 8270E-Sm) | RUSH TAT - All samples for all metals analysis |
| Control - PORT3-042625 | 02 A-B |              | 1135         |             | 2         |                                                                                |                                                                  |                                                                         |                                                                     | <input checked="" type="checkbox"/>                                     |                                                                             |                                                                              |                                                                                          |                                                                                              |                                                                                               |                                                       | Analyses                                       |
| Control - PORT2-042625 | 03     |              | 1155         |             | 2         |                                                                                |                                                                  |                                                                         |                                                                     | <input checked="" type="checkbox"/>                                     | <input checked="" type="checkbox"/>                                         |                                                                              |                                                                                          |                                                                                              |                                                                                               |                                                       |                                                |
| Control - PORT1-042625 | 04     |              | 1230         |             | 2         |                                                                                |                                                                  |                                                                         | <input checked="" type="checkbox"/>                                 | <input checked="" type="checkbox"/>                                     | <input checked="" type="checkbox"/>                                         |                                                                              |                                                                                          |                                                                                              |                                                                                               |                                                       |                                                |
| 202V1 - EFF-042625     | 05 A-D |              | 0935         |             | 4         | <input checked="" type="checkbox"/>                                            | <input checked="" type="checkbox"/>                              | <input checked="" type="checkbox"/>                                     | <input checked="" type="checkbox"/>                                 |                                                                         |                                                                             | <input checked="" type="checkbox"/>                                          | <input checked="" type="checkbox"/>                                                      | <input checked="" type="checkbox"/>                                                          | <input checked="" type="checkbox"/>                                                           |                                                       |                                                |
| 202V1 - PORT3-042625   | 06 A-B |              | 1055         |             | 2         |                                                                                |                                                                  |                                                                         | <input checked="" type="checkbox"/>                                 | <input checked="" type="checkbox"/>                                     | <input checked="" type="checkbox"/>                                         |                                                                              |                                                                                          |                                                                                              |                                                                                               |                                                       |                                                |
| 202V1 - PORT2-042625   | 07     |              | 1200         |             | 2         |                                                                                |                                                                  |                                                                         | <input checked="" type="checkbox"/>                                 | <input checked="" type="checkbox"/>                                     | <input checked="" type="checkbox"/>                                         |                                                                              |                                                                                          |                                                                                              |                                                                                               |                                                       |                                                |
| 202V1 - PORT1-042625   | 08     |              | 1235         |             | 2         |                                                                                |                                                                  |                                                                         | <input checked="" type="checkbox"/>                                 | <input checked="" type="checkbox"/>                                     | <input checked="" type="checkbox"/>                                         |                                                                              |                                                                                          |                                                                                              |                                                                                               |                                                       | labeled HP 4/28 202V1 - PORT1 - 042625         |
| 502V1 - EFF-042625     | 09 A-D |              | 0940         |             | 4         | <input checked="" type="checkbox"/>                                            | <input checked="" type="checkbox"/>                              | <input checked="" type="checkbox"/>                                     | <input checked="" type="checkbox"/>                                 |                                                                         |                                                                             | <input checked="" type="checkbox"/>                                          | <input checked="" type="checkbox"/>                                                      | <input checked="" type="checkbox"/>                                                          | <input checked="" type="checkbox"/>                                                           |                                                       |                                                |
| 502V1 - PORT3-042625   | 10 A-B |              | 1100         |             | 2         |                                                                                |                                                                  |                                                                         | <input checked="" type="checkbox"/>                                 | <input checked="" type="checkbox"/>                                     | <input checked="" type="checkbox"/>                                         |                                                                              |                                                                                          |                                                                                              |                                                                                               |                                                       |                                                |

Friedman &amp; Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

## SIGNATURE

**PRINT NAME**

COMPANY

DALE

## START I

Relinquished by: Dr. David

early 1960s

Received by: 

Relinquished by: \_\_\_\_\_

• <http://www.Care-Forum.com>

Emily Rosten

Michael E. Kelly

1. What is the purpose of the study?

1/3/2022

 $\vec{r}_4$  km

•

## Examples

|   |  |
|---|--|
| 1 |  |
|---|--|

|         |      |
|---------|------|
| 4/28/25 | 8:11 |
|---------|------|

|   |  |
|---|--|
| 0 |  |
|---|--|

|    |  |
|----|--|
| 20 |  |
|----|--|

504443

Andrew Jonkotski

## SAMPLE CHAIN OF CUSTODY

04/28/25 CR/34

Page # 2 of 2

Report To Debra Massey, Marc MalfautCompany Aspect ConsultingAddress 710 2nd Ave, Suite 550City, State, ZIP Seattle, WA, 98104Phone 206-413-5407 Email Debra.Massey@aspect-intl.com

SAMPLERS (signature)

Emily Ruben

PROJECT NAME

Glacier Northwest

PO #

AS2300067

REMARKS

Field Filtered for T/P metals

INVOICE TO

Please invoice using Corp

TURNAROUND TIME

☐ Standard turnaround☒ RUSH 24 hr - All Samples for AllRush charges authorized by: metalsSee Encl from Marc C.

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

| Sample ID               | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Notes                                          |
|-------------------------|--------|--------------|--------------|-------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| 502V1 - PORT 2-042625   | 11 A-B | 4/26/25      | 1205         | W           | 2         | <input checked="" type="checkbox"/> Total Dissolved Solids - NWTPH-Dx<br><input checked="" type="checkbox"/> BTEX EPA 8021<br><input checked="" type="checkbox"/> Total Organic Carbon - NWTPH-HCIB<br><input checked="" type="checkbox"/> Total As + Cu (6020 B)<br><input checked="" type="checkbox"/> VOCs EPA 8260<br><input checked="" type="checkbox"/> Dissolved As + Cu (6020 B)<br><input checked="" type="checkbox"/> PAHs EPA 8270<br><input checked="" type="checkbox"/> Br, Cl, P, B, O, LEPA 300.0<br><input checked="" type="checkbox"/> PCBs EPA 8082<br><input checked="" type="checkbox"/> Total Metals (As, Cu, Fe, Mn, Mg, K, Na) (6020 B)<br><input checked="" type="checkbox"/> Dissolved Metals (As, Cu, Fe, Mn, Mg, K, Na) (6020 B)<br><input checked="" type="checkbox"/> NO <sub>3</sub> as N, NO <sub>2</sub> as N, Orthophosphate as PO <sub>4</sub> (SM EPA 300.0)<br><input checked="" type="checkbox"/> PCP (SM 8270E-SM) | RUSH TAT - FOR All Samples All Metals Analyses |
| 502V1 - PORT 1-042625   | 12 ↓   |              | 1240         | ↓           | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |
| INFLUENT-042625         | 13 A-E | ↓            | 1310         | ↓           | 5         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |
| Control - EFF-042725    | 14 A-D | 4/27/25      | 0915         | W           | 4         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |
| Control - PORT 3-042725 | 15 A-B |              | 1145         | ↓           | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |
| Control - PORT 2-042725 | 16 ↓   |              | 1240         | ↓           | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |
| Control - PORT 1-042725 | 17 ↓   |              | 1325         | ↓           | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |
| 202V1 - EFF-042725      | 18 A-D |              | 0920         | ↓           | 4         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |
| 202V1 - PORT 3-042725   | 19 A-B |              | 1150         | ↓           | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                |
| 202V1 - PORT 2-042725   | 20 ↓   | ↓            | 1245         | ↓           | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ↓                                              |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman &amp; Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

Relinquished by:

Emily Ruben

Received by:

Michael E. Hall

SIGNATURE

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Relinquished by:

Emily Ruben

Received by:

Michael E. Hall

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Phone 206-413-5407 Email bea@msc.bea.msc.net

Carpa

☐ Standard turnaround  
☒ RUSH 24hr - All Samples All Patients Prescribes  
 Rush charges authorized by: \_\_\_\_\_  
See Mail from Marc C.  
 SAMPLE DISPOSAL  
☐ Archive samples  
☐ Other \_\_\_\_\_  
 Default: Dispose after 30 days

ANALYSES REQUESTED

| Sample ID             | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                         |                               |                                     |                                           |                                    |                                        |                                           |                                                      |                                                          |                                                                            | Notes |                                     |
|-----------------------|--------|--------------|--------------|-------------|-----------|--------------------------------------------|-------------------------------|-------------------------------------|-------------------------------------------|------------------------------------|----------------------------------------|-------------------------------------------|------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------|-------|-------------------------------------|
|                       |        |              |              |             |           | Total Dissolved Solids (SM 2540) NWTPH D-6 | Salinity (SM 2520B) NWTPH G-8 | Alkalinity (SM 2320B) BTEX EPA 8091 | Total Organic Carbon (SM 8270) NWTPH HClD | Total As+Cu (6030 B) VOCs EPA 8260 | Dissolved As+Cu (6030 B) PAHs EPA 8270 | Br, Cl, F, S, Se (EPA 8000) PCBs EPA 8082 | Total Metals (As, Cd, Cu, Fe, mg, mn, K, Na) (6020B) | Dissolved Metals (As, Cd, Cu, Fe, mg, mn, K, Na) (6030B) | NO <sub>3</sub> as N, NO <sub>2</sub> as N or phosphate as P (EPA 8000-07) |       | PCP (SM 8270E-Sm)                   |
| 20ZVI - PORT 1-042725 | 21 A-B | 4/27/25      | 1330         | N           | 2         |                                            |                               |                                     |                                           | X                                  | X                                      |                                           |                                                      |                                                          |                                                                            |       | RUSH TRT; All metals<br>All samples |
| 50ZVI - EFF-042725    | 22 A-E |              | 0925         |             | 5         | X                                          | X                             | X                                   | X                                         |                                    |                                        |                                           | X                                                    | X                                                        |                                                                            |       |                                     |
| 50ZVI - PORT 3-042725 | 23 A-B |              | 1200         |             | 2         |                                            |                               |                                     |                                           | X                                  | X                                      |                                           |                                                      |                                                          |                                                                            |       |                                     |
| 50ZVI - PORT 2-042725 | 24     |              | 1250         |             | 2         |                                            |                               |                                     |                                           | X                                  | X                                      |                                           |                                                      |                                                          |                                                                            |       |                                     |
| 50ZVI - PORT 1-042725 | 25 ↓   |              | 1335         |             | 2         |                                            |                               |                                     |                                           | X                                  | X                                      |                                           |                                                      |                                                          |                                                                            |       |                                     |
| INFLUENT-042725       | 26 A-D | ↑            | 1345         | ↓           | 4         | X                                          | X                             | X                                   | X                                         |                                    |                                        | X                                         | X                                                    | X                                                        |                                                                            | ↑     |                                     |

**Friedman & Bruya, Inc.**  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

**SIGNATURE**

PRINT NAME \_\_\_\_\_

COMPANY

DATE \_\_\_\_\_

TIME

Relinquished by:

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As D-100

472817

8:13

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Emily RUSSEN

ASPECT

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Received by:

Michael J. Hill

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4/28/2

613

Relimnisched by:

11/1/2021

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Seashells Inc

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# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504443 CLIENT Aspect INITIALS/ <sup>AP</sup>  
DATE: 4/28/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/ <sup>AP</sup>  
\*or other representative documents, letters, and/or shipping memos Date: 4/28/25

Number of days samples have been sitting prior to receipt at laboratory 1 - 2 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |                                           |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

**Friedman & Bruya**

Michael Erdahl

5500 4th Ave S

Seattle, WA 98108

**RE: 504443,**

**Work Order Number: 2504662**

May 05, 2025

**Attention Michael Erdahl:**

Alliance Technical Group, LLC - Seattle received 8 sample(s) on 4/28/2025 for the analyses presented in the following report.

***Dissolved Metals by EPA 6020B***

***Ion Chromatography by EPA 300.0***

***Salinity by SM 2520B***

***Total Alkalinity by EPA 310.2***

***Total Dissolved Solids by SM 2540C***

***Total Metals by EPA 6020B***

***Total Organic Carbon by SM 5310C***

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,



Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original



**CLIENT:** Friedman & Bruya  
**Project:** 504443  
**Work Order:** 2504662

## Work Order Sample Summary

| Lab Sample ID | Client Sample ID   | Date/Time Collected | Date/Time Received |
|---------------|--------------------|---------------------|--------------------|
| 2504662-001   | Control-EFF-042625 | 04/26/2025 9:30 AM  | 04/28/2025 2:36 PM |
| 2504662-002   | 20ZVI-EFF-042625   | 04/26/2025 9:35 AM  | 04/28/2025 2:36 PM |
| 2504662-003   | 50ZVI-EFF-042625   | 04/26/2025 9:40 AM  | 04/28/2025 2:36 PM |
| 2504662-004   | INFLUENT-042625    | 04/26/2025 1:10 PM  | 04/28/2025 2:36 PM |
| 2504662-005   | Control-EFF-042725 | 04/27/2025 9:15 AM  | 04/28/2025 2:36 PM |
| 2504662-006   | 20ZVI-EFF-042725   | 04/27/2025 9:20 AM  | 04/28/2025 2:36 PM |
| 2504662-007   | 20ZVI-EFF-042725   | 04/27/2025 9:25 AM  | 04/28/2025 2:36 PM |
| 2504662-008   | INFLUENT-042725    | 04/27/2025 1:45 PM  | 04/28/2025 2:36 PM |

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Friedman & Bruya

**Project:** 504443

---

### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.



### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate

**CLIENT:** Friedman & Bruya  
**Project:** 504443

**Lab ID:** 2504662-001

**Collection Date:** 4/26/2025 9:30:00 AM

**Client Sample ID:** Control-EFF-042625

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.136 | 0.100 |    | mg/L | 1 | 4/29/2025 4:19:00 PM |
| Chloride               | 4.37  | 0.200 |    | mg/L | 1 | 4/29/2025 4:19:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 4:19:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 4:19:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 4:19:00 PM |
| Ortho-Phosphate (as P) | 0.718 | 0.400 | QH | mg/L | 1 | 4/29/2025 4:19:00 PM |
| Sulfate                | 3.37  | 1.00  |    | mg/L | 1 | 4/29/2025 4:19:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (87%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                      |
|-----------|--------|------|--|------|---|----------------------|
| Calcium   | 63,700 | 250  |  | µg/L | 1 | 5/5/2025 12:45:00 PM |
| Magnesium | 5,900  | 50.0 |  | µg/L | 1 | 5/5/2025 12:45:00 PM |
| Potassium | 3,950  | 50.0 |  | µg/L | 1 | 5/5/2025 12:45:00 PM |
| Sodium    | 15,300 | 100  |  | µg/L | 1 | 5/5/2025 12:45:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 70,100 | 1,200 | D | µg/L | 20 | 5/2/2025 11:14:00 AM |
| Magnesium | 5,730  | 50.0  |   | µg/L | 1  | 4/29/2025 4:43:00 PM |
| Potassium | 3,940  | 50.0  |   | µg/L | 1  | 4/29/2025 4:43:00 PM |
| Sodium    | 14,900 | 100   |   | µg/L | 1  | 4/29/2025 4:43:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 4.05 | 0.700 |  | mg/L | 1 | 5/1/2024 9:44:00 PM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 209 | 25.0 | D | mg/L | 10 | 5/2/2025 1:15:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99309

Analyst: BB

|                        |     |      |  |      |   |                     |
|------------------------|-----|------|--|------|---|---------------------|
| Total Dissolved Solids | 215 | 5.00 |  | mg/L | 1 | 5/1/2025 8:31:00 AM |
|------------------------|-----|------|--|------|---|---------------------|



## Analytical Report

Work Order: **2504662**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504443

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

**Lab ID:** 2504662-002

**Collection Date:** 4/26/2025 9:35:00 AM

**Client Sample ID:** 20ZVI-EFF-042625

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.137 | 0.100 |    | mg/L | 1 | 4/29/2025 4:42:00 PM |
| Chloride               | 4.54  | 0.200 |    | mg/L | 1 | 4/29/2025 4:42:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 4:42:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 4:42:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 4:42:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 4:42:00 PM |
| Sulfate                | 3.69  | 1.00  |    | mg/L | 1 | 4/29/2025 4:42:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (87%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                      |
|-----------|--------|------|--|------|---|----------------------|
| Calcium   | 61,800 | 250  |  | µg/L | 1 | 5/5/2025 12:54:00 PM |
| Magnesium | 5,230  | 50.0 |  | µg/L | 1 | 5/5/2025 12:54:00 PM |
| Potassium | 3,720  | 50.0 |  | µg/L | 1 | 5/5/2025 12:54:00 PM |
| Sodium    | 15,200 | 100  |  | µg/L | 1 | 5/5/2025 12:54:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 70,400 | 1,200 | D | µg/L | 20 | 5/2/2025 11:17:00 AM |
| Magnesium | 5,180  | 50.0  |   | µg/L | 1  | 4/29/2025 4:46:00 PM |
| Potassium | 3,720  | 50.0  |   | µg/L | 1  | 4/29/2025 4:46:00 PM |
| Sodium    | 14,800 | 100   |   | µg/L | 1  | 4/29/2025 4:46:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 3.11 | 0.700 |  | mg/L | 1 | 5/1/2024 10:05:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 109 | 25.0 | D | mg/L | 10 | 5/2/2025 1:18:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 254 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504662**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504443

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

**Lab ID:** 2504662-003

**Collection Date:** 4/26/2025 9:40:00 AM

**Client Sample ID:** 50ZVI-EFF-042625

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.114 | 0.100 |    | mg/L | 1 | 4/29/2025 5:52:00 PM |
| Chloride               | 4.68  | 0.200 |    | mg/L | 1 | 4/29/2025 5:52:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 5:52:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 5:52:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 5:52:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 5:52:00 PM |
| Sulfate                | 3.12  | 1.00  |    | mg/L | 1 | 4/29/2025 5:52:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                      |
|-----------|--------|------|--|------|---|----------------------|
| Calcium   | 61,700 | 250  |  | µg/L | 1 | 5/5/2025 12:58:00 PM |
| Magnesium | 5,510  | 50.0 |  | µg/L | 1 | 5/5/2025 12:58:00 PM |
| Potassium | 3,930  | 50.0 |  | µg/L | 1 | 5/5/2025 12:58:00 PM |
| Sodium    | 15,700 | 100  |  | µg/L | 1 | 5/5/2025 12:58:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 68,500 | 1,200 | D | µg/L | 20 | 5/2/2025 11:21:00 AM |
| Magnesium | 5,310  | 50.0  |   | µg/L | 1  | 4/29/2025 4:50:00 PM |
| Potassium | 3,880  | 50.0  |   | µg/L | 1  | 4/29/2025 4:50:00 PM |
| Sodium    | 15,200 | 100   |   | µg/L | 1  | 4/29/2025 4:50:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 1.89 | 0.700 |  | mg/L | 1 | 5/1/2024 11:26:00 PM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |      |      |   |      |    |                     |
|-------------------------------------------|------|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 94.8 | 25.0 | D | mg/L | 10 | 5/2/2025 1:20:00 PM |
|-------------------------------------------|------|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 216 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504662**  
Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

**Lab ID:** 2504662-004

**Collection Date:** 4/26/2025 1:10:00 PM

**Client Sample ID:** INFLUENT-042625

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.171 | 0.100 |    | mg/L | 1 | 4/29/2025 6:15:00 PM |
| Chloride               | 3.66  | 0.200 |    | mg/L | 1 | 4/29/2025 6:15:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 6:15:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 6:15:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 6:15:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 6:15:00 PM |
| Sulfate                | 3.92  | 1.00  |    | mg/L | 1 | 4/29/2025 6:15:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 68,600 | 250  |  | µg/L | 1 | 5/5/2025 1:01:00 PM |
| Magnesium | 4,310  | 50.0 |  | µg/L | 1 | 5/5/2025 1:01:00 PM |
| Potassium | 3,590  | 50.0 |  | µg/L | 1 | 5/5/2025 1:01:00 PM |
| Sodium    | 13,300 | 100  |  | µg/L | 1 | 5/5/2025 1:01:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |     |  |      |   |                      |
|-----------|--------|-----|--|------|---|----------------------|
| Calcium   | 70,800 | 120 |  | µg/L | 1 | 4/29/2025 4:53:00 PM |
| Magnesium | 4,160  | 100 |  | µg/L | 1 | 4/29/2025 4:53:00 PM |
| Potassium | 3,530  | 100 |  | µg/L | 1 | 4/29/2025 4:53:00 PM |
| Sodium    | 12,800 | 200 |  | µg/L | 1 | 4/29/2025 4:53:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 4.98 | 0.700 |  | mg/L | 1 | 5/2/2024 12:06:00 AM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 185 | 25.0 | D | mg/L | 10 | 5/2/2025 1:22:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 286 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|





## Analytical Report

Work Order: **2504662**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504443

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

**Lab ID:** 2504662-005

**Collection Date:** 4/27/2025 9:15:00 AM

**Client Sample ID:** Control-EFF-042725

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.142 | 0.100 |    | mg/L | 1 | 4/29/2025 6:38:00 PM |
| Chloride               | 4.51  | 0.200 |    | mg/L | 1 | 4/29/2025 6:38:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 6:38:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 6:38:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 6:38:00 PM |
| Ortho-Phosphate (as P) | 0.641 | 0.400 | QH | mg/L | 1 | 4/29/2025 6:38:00 PM |
| Sulfate                | 3.53  | 1.00  |    | mg/L | 1 | 4/29/2025 6:38:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 64,800 | 250  |  | µg/L | 1 | 5/5/2025 1:04:00 PM |
| Magnesium | 5,740  | 50.0 |  | µg/L | 1 | 5/5/2025 1:04:00 PM |
| Potassium | 3,830  | 50.0 |  | µg/L | 1 | 5/5/2025 1:04:00 PM |
| Sodium    | 14,900 | 100  |  | µg/L | 1 | 5/5/2025 1:04:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |     |  |      |   |                      |
|-----------|--------|-----|--|------|---|----------------------|
| Calcium   | 70,600 | 120 |  | µg/L | 1 | 4/29/2025 4:56:00 PM |
| Magnesium | 5,890  | 100 |  | µg/L | 1 | 4/29/2025 4:56:00 PM |
| Potassium | 4,070  | 100 |  | µg/L | 1 | 4/29/2025 4:56:00 PM |
| Sodium    | 15,300 | 200 |  | µg/L | 1 | 4/29/2025 4:56:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 4.27 | 0.700 |  | mg/L | 1 | 5/2/2024 12:28:00 AM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 250 | 25.0 | D | mg/L | 10 | 5/2/2025 1:24:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 276 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504662**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504443

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

**Lab ID:** 2504662-006

**Collection Date:** 4/27/2025 9:20:00 AM

**Client Sample ID:** 20ZVI-EFF-042725

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.141 | 0.100 |    | mg/L | 1 | 4/29/2025 7:01:00 PM |
| Chloride               | 4.65  | 0.200 |    | mg/L | 1 | 4/29/2025 7:01:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 7:01:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 7:01:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 7:01:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 7:01:00 PM |
| Sulfate                | 3.87  | 1.00  |    | mg/L | 1 | 4/29/2025 7:01:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 62,300 | 250  |  | µg/L | 1 | 5/5/2025 1:07:00 PM |
| Magnesium | 5,260  | 50.0 |  | µg/L | 1 | 5/5/2025 1:07:00 PM |
| Potassium | 3,600  | 50.0 |  | µg/L | 1 | 5/5/2025 1:07:00 PM |
| Sodium    | 15,100 | 100  |  | µg/L | 1 | 5/5/2025 1:07:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 70,000 | 1,200 | D | µg/L | 20 | 5/2/2025 11:24:00 AM |
| Magnesium | 5,060  | 50.0  |   | µg/L | 1  | 4/29/2025 4:59:00 PM |
| Potassium | 3,580  | 50.0  |   | µg/L | 1  | 4/29/2025 4:59:00 PM |
| Sodium    | 14,600 | 100   |   | µg/L | 1  | 4/29/2025 4:59:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                      |
|----------------------|------|-------|--|------|---|----------------------|
| Total Organic Carbon | 3.86 | 0.700 |  | mg/L | 1 | 5/2/2024 12:49:00 AM |
|----------------------|------|-------|--|------|---|----------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 199 | 25.0 | D | mg/L | 10 | 5/2/2025 1:29:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 222 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504662**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504443

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

**Lab ID:** 2504662-007

**Collection Date:** 4/27/2025 9:25:00 AM

**Client Sample ID:** 20ZVI-EFF-042725

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.127 | 0.100 |    | mg/L | 1 | 4/29/2025 7:24:00 PM |
| Chloride               | 4.74  | 0.200 |    | mg/L | 1 | 4/29/2025 7:24:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 7:24:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 7:24:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 7:24:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 7:24:00 PM |
| Sulfate                | 3.18  | 1.00  |    | mg/L | 1 | 4/29/2025 7:24:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 62,000 | 250  |  | µg/L | 1 | 5/5/2025 1:10:00 PM |
| Magnesium | 5,240  | 50.0 |  | µg/L | 1 | 5/5/2025 1:10:00 PM |
| Potassium | 3,740  | 50.0 |  | µg/L | 1 | 5/5/2025 1:10:00 PM |
| Sodium    | 15,200 | 100  |  | µg/L | 1 | 5/5/2025 1:10:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 70,300 | 1,200 | D | µg/L | 20 | 5/2/2025 11:27:00 AM |
| Magnesium | 5,210  | 50.0  |   | µg/L | 1  | 4/29/2025 5:09:00 PM |
| Potassium | 3,710  | 50.0  |   | µg/L | 1  | 4/29/2025 5:09:00 PM |
| Sodium    | 15,000 | 100   |   | µg/L | 1  | 4/29/2025 5:09:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 2.73 | 0.700 |  | mg/L | 1 | 5/2/2024 1:20:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 181 | 25.0 | D | mg/L | 10 | 5/2/2025 1:32:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 286 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504662**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504443

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

**Lab ID:** 2504662-008

**Collection Date:** 4/27/2025 1:45:00 PM

**Client Sample ID:** INFLUENT-042725

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |    |      |   |                      |
|------------------------|-------|-------|----|------|---|----------------------|
| Fluoride               | 0.168 | 0.100 |    | mg/L | 1 | 4/29/2025 7:47:00 PM |
| Chloride               | 3.86  | 0.200 |    | mg/L | 1 | 4/29/2025 7:47:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 7:47:00 PM |
| Bromide                | ND    | 0.600 |    | mg/L | 1 | 4/29/2025 7:47:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H  | mg/L | 1 | 4/29/2025 7:47:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | QH | mg/L | 1 | 4/29/2025 7:47:00 PM |
| Sulfate                | 3.91  | 1.00  |    | mg/L | 1 | 4/29/2025 7:47:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 67,500 | 250  |  | µg/L | 1 | 5/5/2025 1:13:00 PM |
| Magnesium | 4,450  | 50.0 |  | µg/L | 1 | 5/5/2025 1:13:00 PM |
| Potassium | 3,660  | 50.0 |  | µg/L | 1 | 5/5/2025 1:13:00 PM |
| Sodium    | 13,300 | 100  |  | µg/L | 1 | 5/5/2025 1:13:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47533

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 73,800 | 1,200 | D | µg/L | 20 | 5/2/2025 11:30:00 AM |
| Magnesium | 4,180  | 50.0  |   | µg/L | 1  | 4/29/2025 5:12:00 PM |
| Potassium | 3,500  | 50.0  |   | µg/L | 1  | 4/29/2025 5:12:00 PM |
| Sodium    | 12,500 | 100   |   | µg/L | 1  | 4/29/2025 5:12:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 5.24 | 0.700 |  | mg/L | 1 | 5/2/2024 1:39:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99477

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 235 | 25.0 | D | mg/L | 10 | 5/2/2025 1:34:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 278 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|





## Analytical Report

Work Order: **2504662**  
Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya  
**Project:** 504443

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**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Total Alkalinity by EPA 310.2

|                            |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-99477</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             |      | RunNo: <b>99477</b>   |      |  |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>R99477</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             |      | SeqNo: <b>2071986</b> |      |  |
| Analyte                    | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                              |    |      |  |  |  |  |  |  |  |  |  |
|------------------------------|----|------|--|--|--|--|--|--|--|--|--|
| Alkalinity, Total (As CaCO3) | ND | 2.50 |  |  |  |  |  |  |  |  |  |
|------------------------------|----|------|--|--|--|--|--|--|--|--|--|

|                             |        |                         |           |             |                                |          |                            |             |                       |                     |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>LCS-99477</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             |                       | RunNo: <b>99477</b> |      |  |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>R99477</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             | SeqNo: <b>2071987</b> |                     |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |

|                              |      |      |       |   |     |      |     |  |  |  |  |
|------------------------------|------|------|-------|---|-----|------|-----|--|--|--|--|
| Alkalinity, Total (As CaCO3) | 25.7 | 2.50 | 25.00 | 0 | 103 | 79.4 | 136 |  |  |  |  |
|------------------------------|------|------|-------|---|-----|------|-----|--|--|--|--|

|                                      |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|--------------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2504662-001ADUP</b>    |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             |      | RunNo: <b>99477</b>   |      |  |
| Client ID: <b>Control-EFF-042625</b> |        | Batch ID: <b>R99477</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             |      | SeqNo: <b>2071991</b> |      |  |
| Analyte                              | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                              |     |      |  |  |  |  |  |       |      |    |   |
|------------------------------|-----|------|--|--|--|--|--|-------|------|----|---|
| Alkalinity, Total (As CaCO3) | 217 | 25.0 |  |  |  |  |  | 209.0 | 3.86 | 20 | D |
|------------------------------|-----|------|--|--|--|--|--|-------|------|----|---|

|                            |        |                  |           |             |                         |          |                     |             |                |              |      |  |
|----------------------------|--------|------------------|-----------|-------------|-------------------------|----------|---------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504663-001ADUP |        | SampType: DUP    |           |             | Units: mg/L             |          | Prep Date: 5/2/2025 |             |                | RunNo: 99477 |      |  |
| Client ID: BATCH           |        | Batch ID: R99477 |           |             | Analysis Date: 5/2/2025 |          |                     |             | SeqNo: 2072002 |              |      |  |
| Analyte                    | Result | RL               | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |

|                              |     |      |  |  |  |  |  |       |   |    |   |
|------------------------------|-----|------|--|--|--|--|--|-------|---|----|---|
| Alkalinity, Total (As CaCO3) | 231 | 25.0 |  |  |  |  |  | 231.0 | 0 | 20 | D |
|------------------------------|-----|------|--|--|--|--|--|-------|---|----|---|

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

| Sample ID: <b>MB-47545</b> | SampType: <b>MBLK</b>  | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99463</b>   |          |           |             |      |          |      |
|----------------------------|------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|
| Client ID: <b>MBLKW</b>    | Batch ID: <b>47545</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2071891</b> |          |           |             |      |          |      |
| Analyte                    | Result                 | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Fluoride                   | ND                     | 0.100              |           |                                 |                       |          |           |             |      |          |      |
| Chloride                   | ND                     | 0.200              |           |                                 |                       |          |           |             |      |          |      |
| Nitrite (as N)             | ND                     | 0.200              |           |                                 |                       |          |           |             |      |          |      |
| Bromide                    | ND                     | 0.600              |           |                                 |                       |          |           |             |      |          |      |
| Nitrate (as N)             | ND                     | 0.200              |           |                                 |                       |          |           |             |      |          |      |
| Ortho-Phosphate (as P)     | ND                     | 0.400              |           |                                 |                       |          |           |             |      |          | Q    |
| Sulfate                    | ND                     | 1.00               |           |                                 |                       |          |           |             |      |          |      |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

| Sample ID: <b>LCS-47545</b> | SampType: <b>LCS</b>   | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99463</b>   |          |           |             |      |          |      |
|-----------------------------|------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|
| Client ID: <b>LCSW</b>      | Batch ID: <b>47545</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2071892</b> |          |           |             |      |          |      |
| Analyte                     | Result                 | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Fluoride                    | 0.481                  | 0.100              | 0.5000    | 0                               | 96.2                  | 90       | 110       |             |      |          |      |
| Chloride                    | 0.751                  | 0.200              | 0.7500    | 0                               | 100                   | 90       | 110       |             |      |          |      |
| Nitrite (as N)              | 0.706                  | 0.200              | 0.7500    | 0                               | 94.1                  | 90       | 110       |             |      |          |      |
| Bromide                     | 2.47                   | 0.600              | 2.500     | 0                               | 98.6                  | 90       | 110       |             |      |          |      |
| Nitrate (as N)              | 0.749                  | 0.200              | 0.7500    | 0                               | 99.9                  | 90       | 110       |             |      |          |      |
| Ortho-Phosphate (as P)      | 1.14                   | 0.400              | 1.250     | 0                               | 91.5                  | 90       | 110       |             |      |          |      |
| Sulfate                     | 3.59                   | 1.00               | 3.750     | 0                               | 95.7                  | 90       | 110       |             |      |          |      |

| Sample ID: <b>2504657-001CDUP</b> | SampType: <b>DUP</b>   | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99463</b>   |          |           |             |       |          |      |
|-----------------------------------|------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|-------|----------|------|
| Client ID: <b>BATCH</b>           | Batch ID: <b>47545</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2071894</b> |          |           |             |       |          |      |
| Analyte                           | Result                 | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| Fluoride                          | ND                     | 0.100              |           |                                 |                       |          |           | 0           |       | 20       |      |
| Chloride                          | 4.60                   | 0.200              |           |                                 |                       |          |           | 4.604       | 0.174 | 20       |      |
| Nitrite (as N)                    | ND                     | 0.200              |           |                                 |                       |          |           | 0           |       | 20       |      |
| Bromide                           | ND                     | 0.600              |           |                                 |                       |          |           | 0           |       | 20       |      |
| Nitrate (as N)                    | ND                     | 0.200              |           |                                 |                       |          |           | 0           |       | 20       |      |
| Ortho-Phosphate (as P)            | ND                     | 0.400              |           |                                 |                       |          |           | 0           |       | 20       | Q    |

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                            |        |                 |           |             |                          |          |                      |                |        |              |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|----------------|--------|--------------|------|--|
| Sample ID: 2504657-001CDUP |        | SampType: DUP   |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |                |        | RunNo: 99463 |      |  |
| Client ID: BATCH           |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      | SeqNo: 2071894 |        |              |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val    | %RPD   | RPDLimit     | Qual |  |
| Sulfate                    | 18.5   | 1.00            |           |             |                          |          |                      | 18.56          | 0.0701 | 20           |      |  |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

|                           |        |                 |           |             |                          |          |                      |             |                |          |      |
|---------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|----------|------|
| Sample ID: 2504657-001CMS |        | SampType: MS    |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             | RunNo: 99463   |          |      |
| Client ID: BATCH          |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071895 |          |      |
| Analyte                   | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit | Qual |
| Fluoride                  | 0.563  | 0.100           | 0.5000    | 0.07900     | 96.8                     | 80       | 120                  |             |                |          |      |
| Chloride                  | 5.34   | 0.200           | 0.7500    | 4.604       | 98.5                     | 80       | 120                  |             |                |          |      |
| Nitrite (as N)            | 0.735  | 0.200           | 0.7500    | 0           | 98.0                     | 80       | 120                  |             |                |          |      |
| Bromide                   | 2.52   | 0.600           | 2.500     | 0           | 101                      | 80       | 120                  |             |                |          |      |
| Nitrate (as N)            | 0.791  | 0.200           | 0.7500    | 0           | 105                      | 80       | 120                  |             |                |          |      |
| Ortho-Phosphate (as P)    | 0.952  | 0.400           | 1.250     | 0           | 76.2                     | 80       | 120                  |             |                |          | S    |
| Sulfate                   | 22.3   | 1.00            | 3.750     | 18.56       | 100                      | 80       | 120                  |             |                |          |      |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed and recovered within range.

|                            |        |                 |           |             |                          |          |                      |             |                |              |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504657-001CMSD |        | SampType: MSD   |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             |                | RunNo: 99463 |      |  |
| Client ID: BATCH           |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071896 |              |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |
| Fluoride                   | 0.568  | 0.100           | 0.5000    | 0.07900     | 97.8                     | 80       | 120                  | 0.5630      | 0.884          | 20           |      |  |
| Chloride                   | 5.35   | 0.200           | 0.7500    | 4.604       | 99.1                     | 80       | 120                  | 5.343       | 0.0748         | 20           |      |  |
| Nitrite (as N)             | 0.738  | 0.200           | 0.7500    | 0           | 98.4                     | 80       | 120                  | 0.7350      | 0.407          | 20           |      |  |
| Bromide                    | 2.54   | 0.600           | 2.500     | 0           | 102                      | 80       | 120                  | 2.515       | 1.07           | 20           |      |  |
| Nitrate (as N)             | 0.799  | 0.200           | 0.7500    | 0           | 107                      | 80       | 120                  | 0.7910      | 1.01           | 20           |      |  |
| Ortho-Phosphate (as P)     | 1.08   | 0.400           | 1.250     | 0           | 86.8                     | 80       | 120                  | 0.9520      | 13.1           | 20           |      |  |
| Sulfate                    | 22.3   | 1.00            | 3.750     | 18.56       | 101                      | 80       | 120                  | 22.30       | 0.179          | 20           |      |  |

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                                   |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2504658-001CDUP</b> |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/29/2025</b> |                                 |             | RunNo: <b>99463</b> |                       |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47545</b> |           |                    |      |                             | Analysis Date: <b>4/29/2025</b> |             |                     | SeqNo: <b>2071898</b> |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Fluoride                          | ND     | 0.100                  |           |                    |      |                             |                                 | 0           |                     | 20                    |      |
| Chloride                          | 3.57   | 0.200                  |           |                    |      |                             |                                 | 3.568       | 0.140               | 20                    |      |
| Nitrite (as N)                    | ND     | 0.200                  |           |                    |      |                             |                                 | 0           |                     | 20                    |      |
| Bromide                           | ND     | 0.600                  |           |                    |      |                             |                                 | 0           |                     | 20                    |      |
| Nitrate (as N)                    | 1.11   | 0.200                  |           |                    |      |                             |                                 | 1.111       | 0.0900              | 20                    |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |                    |      |                             |                                 | 0           |                     | 20                    | Q    |
| Sulfate                           | 9.44   | 1.00                   |           |                    |      |                             |                                 | 9.438       | 0.0741              | 20                    |      |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

|                                  |        |                        |           |             |                                 |          |                             |             |                       |          |      |
|----------------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504658-001CMS</b> |        | SampType: <b>MS</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>4/29/2025</b> |             | RunNo: <b>99463</b>   |          |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47545</b> |           |             | Analysis Date: <b>4/29/2025</b> |          |                             |             | SeqNo: <b>2071899</b> |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                         | 0.426  | 0.100                  | 0.5000    | 0.05200     | 74.8                            | 80       | 120                         |             |                       |          | S    |
| Chloride                         | 3.57   | 0.200                  | 0.7500    | 3.568       | 0.800                           | 80       | 120                         |             |                       |          | S    |
| Nitrite (as N)                   | 0.594  | 0.200                  | 0.7500    | 0           | 79.2                            | 80       | 120                         |             |                       |          | S    |
| Bromide                          | 2.03   | 0.600                  | 2.500     | 0           | 81.3                            | 80       | 120                         |             |                       |          |      |
| Nitrate (as N)                   | 1.57   | 0.200                  | 0.7500    | 1.111       | 60.8                            | 80       | 120                         |             |                       |          | S    |
| Ortho-Phosphate (as P)           | 0.676  | 0.400                  | 1.250     | 0           | 54.1                            | 80       | 120                         |             |                       |          | S    |
| Sulfate                          | 10.7   | 1.00                   | 3.750     | 9.438       | 34.1                            | 80       | 120                         |             |                       |          | S    |

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Salinity by SM 2520B

|                             |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>MB-R99486</b> |        | SampType: <b>MBLK</b>   |           |             | Units: %                       |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072324</b> |      |                     |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|          |    |          |  |  |  |  |  |  |  |  |  |
|----------|----|----------|--|--|--|--|--|--|--|--|--|
| Salinity | ND | 0.000100 |  |  |  |  |  |  |  |  |  |
|----------|----|----------|--|--|--|--|--|--|--|--|--|

|                              |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99486</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>µS/cm</b>            |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072325</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|          |     |         |       |   |      |      |       |  |  |  |  |
|----------|-----|---------|-------|---|------|------|-------|--|--|--|--|
| Salinity | 986 | 0.00100 | 1,000 | 0 | 98.6 | 79.1 | 119.1 |  |  |  |  |
|----------|-----|---------|-------|---|------|------|-------|--|--|--|--|

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504661-001ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: %                       |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072327</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|          |        |          |  |  |  |  |  |         |   |    |  |
|----------|--------|----------|--|--|--|--|--|---------|---|----|--|
| Salinity | 0.0100 | 0.000100 |  |  |  |  |  | 0.01000 | 0 | 30 |  |
|----------|--------|----------|--|--|--|--|--|---------|---|----|--|

|                                      |        |                         |           |             |      |                            |                                |             |                     |                       |      |
|--------------------------------------|--------|-------------------------|-----------|-------------|------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2504662-001ADUP</b>    |        | SampType: <b>DUP</b>    |           | Units: %    |      | Prep Date: <b>5/5/2025</b> |                                |             | RunNo: <b>99486</b> |                       |      |
| Client ID: <b>Control-EFF-042625</b> |        | Batch ID: <b>R99486</b> |           |             |      |                            | Analysis Date: <b>5/5/2025</b> |             |                     | SeqNo: <b>2072332</b> |      |
| Analyte                              | Result | RL                      | SPK value | SPK Ref Val | %REC | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |

|          |        |          |  |  |  |  |  |         |   |    |  |
|----------|--------|----------|--|--|--|--|--|---------|---|----|--|
| Salinity | 0.0100 | 0.000100 |  |  |  |  |  | 0.01000 | 0 | 30 |  |
|----------|--------|----------|--|--|--|--|--|---------|---|----|--|

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Total Dissolved Solids by SM 2540C

|                             |                         |                    |           |                                 |                       |          |           |             |      |          |      |
|-----------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R99309</b> | SampType: <b>MBLK</b>   | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |
| Client ID: <b>MBLKW</b>     | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068483</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Dissolved Solids      | ND                      | 5.00               |           |                                 |                       |          |           |             |      |          |      |

|                              |                         |                    |           |                                 |                       |          |           |             |      |          |      |
|------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS-R99309</b> | SampType: <b>LCS</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068484</b> |          |           |             |      |          |      |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Dissolved Solids       | 296                     | 5.00               | 300.0     | 0                               | 98.7                  | 65       | 135       |             |      |          |      |

|                                   |                         |                    |           |                                 |                       |          |           |             |      |          |      |
|-----------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2504593-001CDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068486</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Dissolved Solids            | 240                     | 5.00               |           |                                 |                       |          |           | 210.0       | 13.3 | 30       |      |

|                                   |                         |                    |           |                                 |                       |          |           |             |      |          |      |
|-----------------------------------|-------------------------|--------------------|-----------|---------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2504605-001BDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>4/29/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>4/29/2025</b> | SeqNo: <b>2068493</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                     | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Dissolved Solids            | 8,850                   | 5.00               |           |                                 |                       |          |           | 8,320       | 6.17 | 30       |      |

|                                   |                         |                    |           |                                |                       |          |           |             |      |          |      |
|-----------------------------------|-------------------------|--------------------|-----------|--------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2504618-001CDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>5/1/2025</b>     | RunNo: <b>99309</b>   |          |           |             |      |          |      |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99309</b> |                    |           | Analysis Date: <b>5/1/2025</b> | SeqNo: <b>2071394</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                    | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Dissolved Solids            | 80.0                    | 5.00               |           |                                |                       |          |           | 330.0       | 122  | 30       | R    |

**NOTES:**

R - High RPD observed.

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Total Dissolved Solids by SM 2540C

|                             |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-R99442</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             |      | RunNo: <b>99442</b>   |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             |      | SeqNo: <b>2071396</b> |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                        |    |      |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|
| Total Dissolved Solids | ND | 5.00 |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|

|                              |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99442</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |                       |      | RunNo: <b>99442</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            | SeqNo: <b>2071397</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                        |     |      |       |   |     |    |     |  |  |  |  |
|------------------------|-----|------|-------|---|-----|----|-----|--|--|--|--|
| Total Dissolved Solids | 304 | 5.00 | 300.0 | 0 | 101 | 65 | 135 |  |  |  |  |
|------------------------|-----|------|-------|---|-----|----|-----|--|--|--|--|

|                            |        |                  |           |             |                         |          |                     |             |                |          |      |
|----------------------------|--------|------------------|-----------|-------------|-------------------------|----------|---------------------|-------------|----------------|----------|------|
| Sample ID: 2504658-001CDUP |        | SampType: DUP    |           |             | Units: mg/L             |          | Prep Date: 5/2/2025 |             | RunNo: 99442   |          |      |
| Client ID: BATCH           |        | Batch ID: R99442 |           |             | Analysis Date: 5/2/2025 |          |                     |             | SeqNo: 2071399 |          |      |
| Analyte                    | Result | RL               | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val | %RPD           | RPDLimit | Qual |

|                        |      |      |  |  |  |  |  |       |      |    |  |
|------------------------|------|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 97.0 | 5.00 |  |  |  |  |  | 89.00 | 8.60 | 30 |  |
|------------------------|------|------|--|--|--|--|--|-------|------|----|--|

|                             |        |                  |           |             |      |                         |           |                |      |          |      |
|-----------------------------|--------|------------------|-----------|-------------|------|-------------------------|-----------|----------------|------|----------|------|
| Sample ID: 2504662-003ADUP  |        | SampType: DUP    |           | Units: mg/L |      | Prep Date: 5/2/2025     |           | RunNo: 99442   |      |          |      |
| Client ID: 50ZVI-EFF-042625 |        | Batch ID: R99442 |           |             |      | Analysis Date: 5/2/2025 |           | SeqNo: 2071406 |      |          |      |
| Analyte                     | Result | RL               | SPK value | SPK Ref Val | %REC | LowLimit                | HighLimit | RPD Ref Val    | %RPD | RPDLimit | Qual |

|                        |     |      |  |  |  |  |  |       |      |    |  |
|------------------------|-----|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 232 | 5.00 |  |  |  |  |  | 216.0 | 7.14 | 30 |  |
|------------------------|-----|------|--|--|--|--|--|-------|------|----|--|



**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                         |                         |                    |           |             |                                |          |           |                       |      |          |      |
|-------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>MB</b>    | SampType: <b>MBLK</b>   | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/1/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>MBLKW</b> | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/1/2024</b> |          |           | SeqNo: <b>2071074</b> |      |          |      |
| Analyte                 | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon ND 0.700

|                        |                         |                    |           |             |                                |          |           |                       |      |          |      |
|------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>LCS</b>  | SampType: <b>LCS</b>    | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/1/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>LCSW</b> | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/1/2024</b> |          |           | SeqNo: <b>2071075</b> |      |          |      |
| Analyte                | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon 21.7 0.700 25.00 0 86.6 79.6 120

|                                   |                         |                    |           |             |                                |          |           |                       |      |          |      |
|-----------------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>2504661-001BDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/1/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/1/2024</b> |          |           | SeqNo: <b>2071077</b> |      |          |      |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon 3.93 0.700 3.953 0.533 15

|                                    |                         |                    |           |             |                                |          |           |                       |      |          |      |
|------------------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>2504662-003BMS</b>   | SampType: <b>MS</b>     | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/1/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>50ZVI-EFF-042625</b> | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/1/2024</b> |          |           | SeqNo: <b>2071086</b> |      |          |      |
| Analyte                            | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon 23.0 0.700 25.00 1.890 84.5 85 115 S

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

|                                  |                         |                    |           |             |                                |          |           |                       |      |          |      |
|----------------------------------|-------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>2504663-003BMS</b> | SampType: <b>MS</b>     | Units: <b>mg/L</b> |           |             | Prep Date: <b>5/2/2024</b>     |          |           | RunNo: <b>99428</b>   |      |          |      |
| Client ID: <b>BATCH</b>          | Batch ID: <b>R99428</b> |                    |           |             | Analysis Date: <b>5/2/2024</b> |          |           | SeqNo: <b>2071094</b> |      |          |      |
| Analyte                          | Result                  | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |

Total Organic Carbon 23.7 0.700 25.00 2.430 85.0 85 115

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                                   |        |                         |           |             |                                |          |                            |             |                       |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>2504663-003BMSD</b> |        | SampType: <b>MSD</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2024</b> |             |                       | RunNo: <b>99428</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99428</b> |           |             | Analysis Date: <b>5/2/2024</b> |          |                            |             | SeqNo: <b>2071097</b> |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |
| Total Organic Carbon              | 23.6   | 0.700                   | 25.00     | 2.430       | 84.5                           | 85       | 115                        | 23.68       | 0.525                 | 15                  | S    |  |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed and recovered within range.

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

| Sample ID: <b>MB-47613</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072269</b> |      |          |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                    | ND     | 250                    |           |                    |      |                                |           |                       |      |          |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                                |           |                       |      |          |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                                |           |                       |      |          |      |
| Sodium                     | ND     | 100                    |           |                    |      |                                |           |                       |      |          |      |

| Sample ID: <b>LCS-47613</b> |        | SampType: <b>LCS</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072270</b> |      |          |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                     | 936    | 250                    | 1,000     | 0                  | 93.6 | 80                             | 120       |                       |      |          |      |
| Magnesium                   | 1,000  | 50.0                   | 1,000     | 0                  | 100  | 80                             | 120       |                       |      |          |      |
| Potassium                   | 981    | 50.0                   | 1,000     | 0                  | 98.1 | 80                             | 120       |                       |      |          |      |
| Sodium                      | 1,010  | 100                    | 1,000     | 0                  | 101  | 80                             | 120       |                       |      |          |      |

| Sample ID: <b>2504661-001DMS</b> |        | SampType: <b>MS</b>    |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|----------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072272</b> |      |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                          | 61,100 | 250                    | 1,000     | 62,530             | -145 | 75                             | 125       |                       |      |          | S    |
| Magnesium                        | 6,310  | 50.0                   | 1,000     | 5,559              | 75.1 | 75                             | 125       |                       |      |          |      |
| Potassium                        | 4,670  | 50.0                   | 1,000     | 3,892              | 77.8 | 75                             | 125       |                       |      |          |      |
| Sodium                           | 15,600 | 100                    | 1,000     | 15,220             | 43.0 | 75                             | 125       |                       |      |          | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

| Sample ID: <b>2504661-001DMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |       |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072274</b> |       |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Calcium                           | 60,500 | 250                    | 1,000     | 62,530             | -205 | 75                             | 125       | 61,080                | 0.984 | 20       | S    |
| Magnesium                         | 6,280  | 50.0                   | 1,000     | 5,559              | 72.1 | 75                             | 125       | 6,310                 | 0.478 | 20       | S    |

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

| Sample ID: <b>2504661-001DMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |        |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|--------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072274</b> |        |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD   | RPDLimit | Qual |
| Potassium                         | 4,670  | 50.0                   | 1,000     | 3,892              | 77.6 | 75                             | 125       | 4,669                 | 0.0338 | 20       |      |
| Sodium                            | 15,400 | 100                    | 1,000     | 15,220             | 13.7 | 75                             | 125       | 15,650                | 1.88   | 20       | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

Total Metals by EPA 6020B

|                            |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47533</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/29/2025</b> |                                 |             | RunNo: <b>99350</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47533</b> |           |                    |      |                             | Analysis Date: <b>4/29/2025</b> |             |                     | SeqNo: <b>2069259</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                    | ND     | 60.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Sodium                     | ND     | 100                    |           |                    |      |                             |                                 |             |                     |                       |      |

|                             |                        |                    |           |             |      |                                 |           |             |                       |          |      |
|-----------------------------|------------------------|--------------------|-----------|-------------|------|---------------------------------|-----------|-------------|-----------------------|----------|------|
| Sample ID: <b>LCS-47533</b> | SampType: <b>LCS</b>   | Units: <b>µg/L</b> |           |             |      | Prep Date: <b>4/29/2025</b>     |           |             | RunNo: <b>99350</b>   |          |      |
| Client ID: <b>LCSW</b>      | Batch ID: <b>47533</b> |                    |           |             |      | Analysis Date: <b>4/29/2025</b> |           |             | SeqNo: <b>2069260</b> |          |      |
| Analyte                     | Result                 | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                     | 1,020                  | 60.0               | 1,000     | 0           | 102  | 80                              | 120       |             |                       |          |      |
| Magnesium                   | 1,020                  | 50.0               | 1,000     | 0           | 102  | 80                              | 120       |             |                       |          |      |
| Potassium                   | 1,010                  | 50.0               | 1,000     | 0           | 101  | 80                              | 120       |             |                       |          |      |
| Sodium                      | 1,020                  | 100                | 1,000     | 0           | 102  | 80                              | 120       |             |                       |          |      |

|                                  |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2504624-003DMS</b> |        | SampType: <b>MS</b>    |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/29/2025</b> |                                 |             | RunNo: <b>99350</b> |                       |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47533</b> |           |                    |      |                             | Analysis Date: <b>4/29/2025</b> |             |                     | SeqNo: <b>2069262</b> |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                          | 19,300 | 60.0                   | 1,000     | 18,050             | 126  | 75                          | 125                             |             |                     |                       | SE   |
| Magnesium                        | 2,550  | 50.0                   | 1,000     | 1,522              | 103  | 75                          | 125                             |             |                     |                       |      |
| Potassium                        | 7,130  | 50.0                   | 1,000     | 6,038              | 109  | 75                          | 125                             |             |                     |                       | E    |
| Sodium                           | 13,000 | 100                    | 1,000     | 11,820             | 121  | 75                          | 125                             |             |                     |                       | E    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                            |                 |             |           |             |      |                          |           |             |       |                |      |
|----------------------------|-----------------|-------------|-----------|-------------|------|--------------------------|-----------|-------------|-------|----------------|------|
| Sample ID: 2504624-003DMSD | SampType: MSD   | Units: µg/L |           |             |      | Prep Date: 4/29/2025     |           |             |       | RunNo: 99350   |      |
| Client ID: BATCH           | Batch ID: 47533 |             |           |             |      | Analysis Date: 4/29/2025 |           |             |       | SeqNo: 2069264 |      |
| Analyte                    | Result          | RL          | SPK value | SPK Ref Val | %REC | LowLimit                 | HighLimit | RPD Ref Val | %RPD  | RPDLimit       | Qual |
| Calcium                    | 19,400          | 60.0        | 1,000     | 18,050      | 139  | 75                       | 125       | 19,310      | 0.669 | 20             | SE   |
| Magnesium                  | 2,560           | 50.0        | 1,000     | 1,522       | 104  | 75                       | 125       | 2,550       | 0.477 | 20             |      |

**Work Order:** 2504662  
**CLIENT:** Friedman & Bruya  
**Project:** 504443

## QC SUMMARY REPORT

Total Metals by EPA 6020B

|                            |        |                 |           |             |                          |          |                      |             |                |              |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504624-003DMSD |        | SampType: MSD   |           |             | Units: µg/L              |          | Prep Date: 4/29/2025 |             |                | RunNo: 99350 |      |  |
| Client ID: BATCH           |        | Batch ID: 47533 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2069264 |              |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |
| Potassium                  | 7,170  | 50.0            | 1,000     | 6,038       | 113                      | 75       | 125                  | 7,132       | 0.482          | 20           | E    |  |
| Sodium                     | 13,000 | 100             | 1,000     | 11,820      | 123                      | 75       | 125                  | 13,030      | 0.129          | 20           | E    |  |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Client Name: FB

Work Order Number: 2504662

Logged by: Morgan Wilson

Date Received: 4/28/2025 2:36:00 PM

## Chain of Custody

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

## Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☐ No ☒

## Special Handling (if applicable)

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

|                      |                                               |       |                                                                                                                                          |
|----------------------|-----------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text" value="Michael Erdahl"/>   | Date: | <input type="text" value="4/28/2025"/>                                                                                                   |
| By Whom:             | <input type="text" value="Morgan Wilson"/>    | Via:  | <input checked="" type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text" value="Anions Hold Time"/> |       |                                                                                                                                          |
| Client Instructions: | <input type="text"/>                          |       |                                                                                                                                          |

17. Additional remarks:

## Item Information

| Item # | Temp °C |
|--------|---------|
| Sample | 4.0     |

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

## Page # 1 of 1

**Dispose after 30 days  
Return samples  
Will call with instructions**

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

Page 35 of 35



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 7, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the additional results from the testing of material submitted on April 28, 2025 from the Glacier Northwest AS230067, F&BI 504455 project. There are 19 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Marc Chalfant  
ASP0507R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 28, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504455 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504455 -01           | Control-EFF-042825       |
| 504455 -02           | Control-Port3-042825     |
| 504455 -03           | Control-Port2-042825     |
| 504455 -04           | Control-Port1-042825     |
| 504455 -05           | 20ZVI-EFF-042825         |
| 504455 -06           | 20ZVI-Port3-042825       |
| 504455 -07           | 20ZVI-Port2-042825       |
| 504455 -08           | 20ZVI-Port1-042825       |
| 504455 -09           | 50ZVI-EFF-042825         |
| 504455 -10           | 50ZVI-Port3-042825       |
| 504455 -11           | 50ZVI-Port2-042825       |
| 504455 -12           | 50ZVI-Port1-042825       |
| 504455 -13           | Influent-042825          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, F, Br) were sent to Alliance Technical Group for testing. The report will be forwarded upon receipt.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-01 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-01 x5.149           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 610 |
|------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-01 x100             |
| Date Analyzed:    | 04/30/25           | Data File:  | 504455-01 x100.308         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 830 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-05 x100             |
| Date Analyzed:    | 05/05/25         | Data File:  | 504455-05 x100.149         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 730 |
|-----------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-05 x1000            |
| Date Analyzed:    | 05/01/25         | Data File:  | 504455-05 x1000.322        |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |         |
|------|---------|
| Iron | 130,000 |
|------|---------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-09 x500             |
| Date Analyzed:    | 04/30/25         | Data File:  | 504455-09 x500.310         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 540 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-09 x500             |
| Date Analyzed:    | 05/01/25         | Data File:  | 504455-09 x500.323         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |        |
|------|--------|
| Iron | 95,000 |
|------|--------|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25        | Lab ID:     | 504455-13 x100             |
| Date Analyzed:    | 04/30/25        | Data File:  | 504455-13 x100.312         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 140 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25        | Lab ID:     | 504455-13 x100             |
| Date Analyzed:    | 05/01/25        | Data File:  | 504455-13 x100.324         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |        |
|------|--------|
| Iron | 15,000 |
|------|--------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25       | Lab ID:     | I5-351 mb2                 |
| Date Analyzed:    | 04/29/25       | Data File:  | I5-351 mb2.284             |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Iron      | <50 |
| Manganese | <1  |

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-01 x2               |
| Date Analyzed:    | 05/02/25           | Data File:  | 504455-01 x2.203           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |     |
|------|-----|
| Iron | 330 |
|------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-01 x100             |
| Date Analyzed:    | 05/02/25           | Data File:  | 504455-01 x100.202         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 680 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-05 x500             |
| Date Analyzed:    | 05/02/25         | Data File:  | 504455-05 x500.204         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |         |
|-----------|---------|
| Iron      | 110,000 |
| Manganese | 1,000   |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-09 x500             |
| Date Analyzed:    | 05/02/25         | Data File:  | 504455-09 x500.205         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 86,000 |
| Manganese | 660    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25        | Lab ID:     | 504455-13 x100             |
| Date Analyzed:    | 05/02/25        | Data File:  | 504455-13 x100.216         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 14,000 |
| Manganese | 150    |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25       | Lab ID:     | I5-359 mb2                 |
| Date Analyzed:    | 04/29/25       | Data File:  | I5-359 mb2.260             |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Iron      | <50 |
| Manganese | <1  |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/07/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504455

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 504402-01 x20 (Matrix Spike)

| Analyte   | Reporting<br>Units | Spike<br>Level | Sample<br>Result | Percent<br>Recovery<br>MS | Percent<br>Recovery<br>MSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|------------------|---------------------------|----------------------------|------------------------|-------------------|
| Iron      | ug/L (ppb)         | 100            | 24,100           | 3440 b                    | 1340 b                     | 75-125                 | 88 b              |
| Manganese | ug/L (ppb)         | 20             | 327              | 334 b                     | 186 b                      | 75-125                 | 57 b              |

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Acceptance<br>Criteria |
|-----------|--------------------|----------------|----------------------------|------------------------|
| Iron      | ug/L (ppb)         | 100            | 96                         | 80-120                 |
| Manganese | ug/L (ppb)         | 20             | 104                        | 80-120                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/07/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504455

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Iron      | ug/L (ppb)         | 100            | 96                         | 94                          | 80-120                 | 2                 |
| Manganese | ug/L (ppb)         | 20             | 99                         | 98                          | 80-120                 | 1                 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

04/28/25 JS

2

DO#

AS230067

☐ Standard turnaround  
☒ RUSH 24-hr - only AS and C  
Rush charges authorized by: residents / staff

INVOICE TO  
Please invoice

**SAMPLE DISPOSAL**  
☐ Archive samples  
☐ Other \_\_\_\_\_  
Default: Dispose after 30 days

5m 2510clt

5305

## ANALYSES REQUESTED

---

1

Total Dissolved Solids  
 - NWTPII-Dx  
 Salinity (sm2520B)  
 - NWTPII-Gx  
 Alkalinity (sm2320B)  
 - BTEX EPA 8021  
 Total Organic Carbon (sm  
 - NWTPII-HCIB  
 Total As + Cu (6020B)  
 - VOCs EPA 8260  
 Dissolved As + Cu (6020B)  
 - PAHs EPA 8270  
 Br, Cl, F, SO4 (EPA300C)  
 PCBs EPA 8082  
 Total Metals (As, Cu, Cd,  
 Fe, mg, Mn, K, Na)  
 (6020B)  
 Dissolved Metals (As, Cu,  
 Fe, Mn, mg, K, Na)  
 (6020B)  
 NO<sub>3</sub> as N, NO<sub>2</sub> as N,  
 Or Phosphate  
 as PO<sub>4</sub> 3- (EPA300C)

## Notes

### RUSH TAT for AS and Cu Results

for all samples

+

|  |  |
|--|--|
|  |  |
|--|--|

|  |  |
|--|--|
|  |  |
|--|--|



|      |       |
|------|-------|
| DATE | TITLE |
|      |       |

|      |          |    |
|------|----------|----|
| DATE | 12/28/25 | 14 |
|------|----------|----|

|       |     |
|-------|-----|
| 28/25 | 14- |
|-------|-----|

40

YJZm

$$\overline{E_N}$$

|  |  |
|--|--|
|  |  |
|  |  |

ASPECT

|         |    |
|---------|----|
| 4/28/25 | 10 |
|---------|----|

4:50

1151

1

|  |  |
|--|--|
|  |  |
|  |  |

221

|   |   |   |
|---|---|---|
|   | 三 | . |
| 二 |   |   |

---

---

1

|  |  |
|--|--|
|  |  |
|  |  |

Samples rec

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|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

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04/28/25 T3

Report To Delia Massey, Marc Chabante

Company ASPECT Consulting

Address 710 2nd Ave. Suite 550

City, State, ZIP Seattle, WA 98109

Phone 206-413-5407 Email Er Deiv. masssey @  
Guadysmtr.com

|                                                                              |                                             |
|------------------------------------------------------------------------------|---------------------------------------------|
| SAMPLERS (signature)<br><i>Emily Ruder</i>                                   |                                             |
| PROJECT NAME<br>Glacier Northwest                                            | PO #<br>AS230067                            |
| REMARKS<br>Field Filtered for T/D Metals<br>Project specific PLS? - Yes / No | INVOICE TO<br>Please Invoice through Courpa |

TURNAROUND TIME

☐ Standard turnaround

☒ RUSH 24-hr - *only as cond. & results permit*

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

☐ Archive samples

☐ Other \_\_\_\_\_

Default: Dispose after 30 days

[illegible]

**Friedman & Bruya, Inc.**  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

| SIGNATURE                               | PRINT NAME     | COMPANY             | DATE    | TIME  |
|-----------------------------------------|----------------|---------------------|---------|-------|
| Relinquished by: <i>Samuel R. Rosen</i> | EMILY R. ROSEN | ASPECT              | 4/28/05 | 14:50 |
| Received by: <i>m/m/grams</i>           | Dhan Phan      | FE B I              | 4/28/05 | 1450  |
| Relinquished by:                        |                |                     |         |       |
| Received by:                            |                | Samples received at | 4 oc    |       |

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504455 CLIENT Aspect INITIALS/DATE: NA 04/28/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 4 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/Date: AP 4/28/25  
\*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                     |                                           |
|--------------------|---------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input type="checkbox"/> Yes <input type="checkbox"/> No            | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input type="checkbox"/> Yes <input type="checkbox"/> No            | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                                           |
| Relinquished       | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                                           |
| Requested analysis | <input type="checkbox"/> Yes <input type="checkbox"/> On Hold       |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

**Friedman & Bruya**

Michael Erdahl

5500 4th Ave S

Seattle, WA 98108

**RE: 504455,**

**Work Order Number: 2504661**

May 05, 2025

**Attention Michael Erdahl:**

Alliance Technical Group, LLC - Seattle received 4 sample(s) on 4/28/2025 for the analyses presented in the following report.

***Dissolved Metals by EPA 6020B***

***Ion Chromatography by EPA 300.0***

***Salinity by SM 2520B***

***Total Alkalinity by EPA 310.2***

***Total Dissolved Solids by SM 2540C***

***Total Metals by EPA 6020B***

***Total Organic Carbon by SM 5310C***

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,



Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original





---

**CLIENT:** Friedman & Bruya  
**Project:** 504455  
**Work Order:** 2504661

---

## Work Order Sample Summary

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| Lab Sample ID | Client Sample ID   | Date/Time Collected | Date/Time Received |
|---------------|--------------------|---------------------|--------------------|
| 2504661-001   | Control-EFF-042825 | 04/28/2025 9:30 AM  | 04/28/2025 3:39 PM |
| 2504661-002   | 20ZVI-EFF-042825   | 04/28/2025 9:35 AM  | 04/28/2025 3:39 PM |
| 2504661-003   | 50ZVI-EFF-042825   | 04/28/2025 9:40 AM  | 04/28/2025 3:39 PM |
| 2504661-004   | INFLUENT-042825    | 04/28/2025 1:05 PM  | 04/28/2025 3:39 PM |

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Friedman & Bruya

**Project:** 504455

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate

**CLIENT:** Friedman & Bruya  
**Project:** 504455

**Lab ID:** 2504661-001

**Collection Date:** 4/28/2025 9:30:00 AM

**Client Sample ID:** Control-EFF-042825

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |   |      |   |                       |
|------------------------|-------|-------|---|------|---|-----------------------|
| Fluoride               | 0.157 | 0.100 |   | mg/L | 1 | 4/29/2025 10:29:00 PM |
| Chloride               | 4.30  | 0.200 |   | mg/L | 1 | 4/29/2025 10:29:00 PM |
| Nitrite (as N)         | ND    | 0.200 |   | mg/L | 1 | 4/29/2025 10:29:00 PM |
| Bromide                | ND    | 0.600 |   | mg/L | 1 | 4/29/2025 10:29:00 PM |
| Nitrate (as N)         | ND    | 0.200 |   | mg/L | 1 | 4/29/2025 10:29:00 PM |
| Ortho-Phosphate (as P) | 0.766 | 0.400 | Q | mg/L | 1 | 4/29/2025 10:29:00 PM |
| Sulfate                | 3.94  | 1.00  |   | mg/L | 1 | 4/29/2025 10:29:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                      |
|-----------|--------|------|--|------|---|----------------------|
| Calcium   | 62,500 | 250  |  | µg/L | 1 | 5/5/2025 12:23:00 PM |
| Magnesium | 5,560  | 50.0 |  | µg/L | 1 | 5/5/2025 12:23:00 PM |
| Potassium | 3,890  | 50.0 |  | µg/L | 1 | 5/5/2025 12:23:00 PM |
| Sodium    | 15,200 | 100  |  | µg/L | 1 | 5/5/2025 12:23:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47553

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 66,700 | 2,500 | D | µg/L | 10 | 5/5/2025 11:23:00 AM |
| Magnesium | 5,450  | 500   | D | µg/L | 10 | 5/5/2025 11:23:00 AM |
| Potassium | 3,870  | 500   | D | µg/L | 10 | 5/5/2025 11:23:00 AM |
| Sodium    | 14,900 | 1,000 | D | µg/L | 10 | 5/5/2025 11:23:00 AM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 3.95 | 0.700 |  | mg/L | 1 | 5/1/2024 7:57:00 PM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 250 | 25.0 | D | mg/L | 10 | 5/1/2025 1:37:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 238 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504661**  
Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya  
**Project:** 504455

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**CLIENT:** Friedman & Bruya  
**Project:** 504455

**Lab ID:** 2504661-002

**Collection Date:** 4/28/2025 9:35:00 AM

**Client Sample ID:** 20ZVI-EFF-042825

**Matrix:** Water

| Analyses                                      | Result | RL    | Qual | Units           | DF | Date Analyzed         |
|-----------------------------------------------|--------|-------|------|-----------------|----|-----------------------|
| <b><u>Ion Chromatography by EPA 300.0</u></b> |        |       |      | Batch ID: 47545 |    | Analyst: OP           |
| Fluoride                                      | 0.167  | 0.100 |      | mg/L            | 1  | 4/29/2025 10:52:00 PM |
| Chloride                                      | 4.35   | 0.200 |      | mg/L            | 1  | 4/29/2025 10:52:00 PM |
| Nitrite (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 4/29/2025 10:52:00 PM |
| Bromide                                       | ND     | 0.600 |      | mg/L            | 1  | 4/29/2025 10:52:00 PM |
| Nitrate (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 4/29/2025 10:52:00 PM |
| Ortho-Phosphate (as P)                        | ND     | 0.400 | Q    | mg/L            | 1  | 4/29/2025 10:52:00 PM |
| Sulfate                                       | 4.29   | 1.00  |      | mg/L            | 1  | 4/29/2025 10:52:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

|                                             |        |      |  |                 |   |                      |
|---------------------------------------------|--------|------|--|-----------------|---|----------------------|
| <b><u>Dissolved Metals by EPA 6020B</u></b> |        |      |  | Batch ID: 47613 |   | Analyst: ME          |
| Calcium                                     | 59,200 | 250  |  | µg/L            | 1 | 5/5/2025 12:36:00 PM |
| Magnesium                                   | 5,180  | 50.0 |  | µg/L            | 1 | 5/5/2025 12:36:00 PM |
| Potassium                                   | 3,830  | 50.0 |  | µg/L            | 1 | 5/5/2025 12:36:00 PM |
| Sodium                                      | 15,100 | 100  |  | µg/L            | 1 | 5/5/2025 12:36:00 PM |

|                                         |        |       |   |                 |    |                      |
|-----------------------------------------|--------|-------|---|-----------------|----|----------------------|
| <b><u>Total Metals by EPA 6020B</u></b> |        |       |   | Batch ID: 47553 |    | Analyst: ME          |
| Calcium                                 | 65,000 | 2,500 | D | µg/L            | 10 | 5/5/2025 11:26:00 AM |
| Magnesium                               | 5,250  | 500   | D | µg/L            | 10 | 5/5/2025 11:26:00 AM |
| Potassium                               | 3,880  | 500   | D | µg/L            | 10 | 5/5/2025 11:26:00 AM |
| Sodium                                  | 15,100 | 1,000 | D | µg/L            | 10 | 5/5/2025 11:26:00 AM |

|                                                |      |       |  |                  |   |                     |
|------------------------------------------------|------|-------|--|------------------|---|---------------------|
| <b><u>Total Organic Carbon by SM 5310C</u></b> |      |       |  | Batch ID: R99428 |   | Analyst: SS         |
| Total Organic Carbon                           | 3.64 | 0.700 |  | mg/L             | 1 | 5/1/2024 8:40:00 PM |

|                                             |     |      |   |                  |    |                     |
|---------------------------------------------|-----|------|---|------------------|----|---------------------|
| <b><u>Total Alkalinity by EPA 310.2</u></b> |     |      |   | Batch ID: R99418 |    | Analyst: NR         |
| Alkalinity, Total (As CaCO <sub>3</sub> )   | 193 | 25.0 | D | mg/L             | 10 | 5/1/2025 1:39:00 PM |

|                                    |        |          |  |                  |   |                     |
|------------------------------------|--------|----------|--|------------------|---|---------------------|
| <b><u>Salinity by SM 2520B</u></b> |        |          |  | Batch ID: R99486 |   | Analyst: OP         |
| Salinity                           | 0.0100 | 0.000100 |  | %                | 1 | 5/5/2025 3:11:21 PM |

|                                                  |     |      |  |                  |   |                      |
|--------------------------------------------------|-----|------|--|------------------|---|----------------------|
| <b><u>Total Dissolved Solids by SM 2540C</u></b> |     |      |  | Batch ID: R99442 |   | Analyst: BB          |
| Total Dissolved Solids                           | 228 | 5.00 |  | mg/L             | 1 | 5/2/2025 12:27:54 PM |



## Analytical Report

Work Order: **2504661**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504455

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**CLIENT:** Friedman & Bruya  
**Project:** 504455

**Lab ID:** 2504661-003

**Collection Date:** 4/28/2025 9:40:00 AM

**Client Sample ID:** 50ZVI-EFF-042825

**Matrix:** Water

| Analyses                                      | Result | RL    | Qual | Units           | DF | Date Analyzed         |
|-----------------------------------------------|--------|-------|------|-----------------|----|-----------------------|
| <b><u>Ion Chromatography by EPA 300.0</u></b> |        |       |      | Batch ID: 47545 |    | Analyst: OP           |
| Fluoride                                      | 0.140  | 0.100 |      | mg/L            | 1  | 4/29/2025 11:15:00 PM |
| Chloride                                      | 4.56   | 0.200 |      | mg/L            | 1  | 4/29/2025 11:15:00 PM |
| Nitrite (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 4/29/2025 11:15:00 PM |
| Bromide                                       | ND     | 0.600 |      | mg/L            | 1  | 4/29/2025 11:15:00 PM |
| Nitrate (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 4/29/2025 11:15:00 PM |
| Ortho-Phosphate (as P)                        | ND     | 0.400 | Q    | mg/L            | 1  | 4/29/2025 11:15:00 PM |
| Sulfate                                       | 3.33   | 1.00  |      | mg/L            | 1  | 4/29/2025 11:15:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

|                                             |        |      |  |                 |   |                      |
|---------------------------------------------|--------|------|--|-----------------|---|----------------------|
| <b><u>Dissolved Metals by EPA 6020B</u></b> |        |      |  | Batch ID: 47613 |   | Analyst: ME          |
| Calcium                                     | 60,800 | 250  |  | µg/L            | 1 | 5/5/2025 12:39:00 PM |
| Magnesium                                   | 5,190  | 50.0 |  | µg/L            | 1 | 5/5/2025 12:39:00 PM |
| Potassium                                   | 3,890  | 50.0 |  | µg/L            | 1 | 5/5/2025 12:39:00 PM |
| Sodium                                      | 15,700 | 100  |  | µg/L            | 1 | 5/5/2025 12:39:00 PM |

|                                         |        |       |   |                 |    |                      |
|-----------------------------------------|--------|-------|---|-----------------|----|----------------------|
| <b><u>Total Metals by EPA 6020B</u></b> |        |       |   | Batch ID: 47553 |    | Analyst: ME          |
| Calcium                                 | 65,700 | 2,500 | D | µg/L            | 10 | 5/5/2025 11:29:00 AM |
| Magnesium                               | 5,130  | 500   | D | µg/L            | 10 | 5/5/2025 11:29:00 AM |
| Potassium                               | 3,930  | 500   | D | µg/L            | 10 | 5/5/2025 11:29:00 AM |
| Sodium                                  | 15,600 | 1,000 | D | µg/L            | 10 | 5/5/2025 11:29:00 AM |

|                                                |      |       |  |                  |   |                     |
|------------------------------------------------|------|-------|--|------------------|---|---------------------|
| <b><u>Total Organic Carbon by SM 5310C</u></b> |      |       |  | Batch ID: R99428 |   | Analyst: SS         |
| Total Organic Carbon                           | 2.99 | 0.700 |  | mg/L             | 1 | 5/1/2024 9:01:00 PM |

|                                             |     |      |   |                  |    |                     |
|---------------------------------------------|-----|------|---|------------------|----|---------------------|
| <b><u>Total Alkalinity by EPA 310.2</u></b> |     |      |   | Batch ID: R99418 |    | Analyst: NR         |
| Alkalinity, Total (As CaCO <sub>3</sub> )   | 186 | 25.0 | D | mg/L             | 10 | 5/1/2025 1:41:00 PM |

|                                    |        |          |  |                  |   |                     |
|------------------------------------|--------|----------|--|------------------|---|---------------------|
| <b><u>Salinity by SM 2520B</u></b> |        |          |  | Batch ID: R99486 |   | Analyst: OP         |
| Salinity                           | 0.0100 | 0.000100 |  | %                | 1 | 5/5/2025 3:11:21 PM |

|                                                  |     |      |  |                  |   |                      |
|--------------------------------------------------|-----|------|--|------------------|---|----------------------|
| <b><u>Total Dissolved Solids by SM 2540C</u></b> |     |      |  | Batch ID: R99442 |   | Analyst: BB          |
| Total Dissolved Solids                           | 316 | 5.00 |  | mg/L             | 1 | 5/2/2025 12:27:54 PM |





## Analytical Report

Work Order: **2504661**

Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya

**Project:** 504455

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**CLIENT:** Friedman & Bruya  
**Project:** 504455

**Lab ID:** 2504661-004

**Collection Date:** 4/28/2025 1:05:00 PM

**Client Sample ID:** INFLUENT-042825

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47545

Analyst: OP

|                        |       |       |   |      |   |                       |
|------------------------|-------|-------|---|------|---|-----------------------|
| Fluoride               | 0.171 | 0.100 |   | mg/L | 1 | 4/29/2025 11:38:00 PM |
| Chloride               | 3.50  | 0.200 |   | mg/L | 1 | 4/29/2025 11:38:00 PM |
| Nitrite (as N)         | ND    | 0.200 |   | mg/L | 1 | 4/29/2025 11:38:00 PM |
| Bromide                | ND    | 0.600 |   | mg/L | 1 | 4/29/2025 11:38:00 PM |
| Nitrate (as N)         | ND    | 0.200 |   | mg/L | 1 | 4/29/2025 11:38:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | Q | mg/L | 1 | 4/29/2025 11:38:00 PM |
| Sulfate                | 4.06  | 1.00  |   | mg/L | 1 | 4/29/2025 11:38:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (81%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47613

Analyst: ME

|           |        |      |  |      |   |                      |
|-----------|--------|------|--|------|---|----------------------|
| Calcium   | 68,100 | 250  |  | µg/L | 1 | 5/5/2025 12:42:00 PM |
| Magnesium | 4,300  | 50.0 |  | µg/L | 1 | 5/5/2025 12:42:00 PM |
| Potassium | 3,510  | 50.0 |  | µg/L | 1 | 5/5/2025 12:42:00 PM |
| Sodium    | 12,800 | 100  |  | µg/L | 1 | 5/5/2025 12:42:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47553

Analyst: ME

|           |        |       |   |      |    |                      |
|-----------|--------|-------|---|------|----|----------------------|
| Calcium   | 73,400 | 2,500 | D | µg/L | 10 | 5/5/2025 11:32:00 AM |
| Magnesium | 4,270  | 500   | D | µg/L | 10 | 5/5/2025 11:32:00 AM |
| Potassium | 3,610  | 500   | D | µg/L | 10 | 5/5/2025 11:32:00 AM |
| Sodium    | 13,000 | 1,000 | D | µg/L | 10 | 5/5/2025 11:32:00 AM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99428

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 4.81 | 0.700 |  | mg/L | 1 | 5/1/2024 9:23:00 PM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99418

Analyst: NR

|                                           |     |      |   |      |    |                     |
|-------------------------------------------|-----|------|---|------|----|---------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 257 | 25.0 | D | mg/L | 10 | 5/1/2025 1:43:00 PM |
|-------------------------------------------|-----|------|---|------|----|---------------------|

**Salinity by SM 2520B**

Batch ID: R99486

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/5/2025 3:11:21 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99442

Analyst: BB

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 272 | 5.00 |  | mg/L | 1 | 5/2/2025 12:27:54 PM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: **2504661**  
Date Reported: **5/5/2025**

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**CLIENT:** Friedman & Bruya  
**Project:** 504455

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**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Total Alkalinity by EPA 310.2

|                              |                         |                    |           |             |      |                                |           |             |      |                       |      |  |
|------------------------------|-------------------------|--------------------|-----------|-------------|------|--------------------------------|-----------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-99418</b>   | SampType: <b>MBLK</b>   | Units: <b>mg/L</b> |           |             |      | Prep Date: <b>5/1/2025</b>     |           |             |      | RunNo: <b>99418</b>   |      |  |
| Client ID: <b>MBLKW</b>      | Batch ID: <b>R99418</b> |                    |           |             |      | Analysis Date: <b>5/1/2025</b> |           |             |      | SeqNo: <b>2070709</b> |      |  |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD | RPDLimit              | Qual |  |
| Alkalinity, Total (As CaCO3) | ND                      | 2.50               |           |             |      |                                |           |             |      |                       |      |  |

|                              |                         |                    |           |             |      |                                |           |             |      |                       |      |  |
|------------------------------|-------------------------|--------------------|-----------|-------------|------|--------------------------------|-----------|-------------|------|-----------------------|------|--|
| Sample ID: <b>LCS-99418</b>  | SampType: <b>LCS</b>    | Units: <b>mg/L</b> |           |             |      | Prep Date: <b>5/1/2025</b>     |           |             |      | RunNo: <b>99418</b>   |      |  |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R99418</b> |                    |           |             |      | Analysis Date: <b>5/1/2025</b> |           |             |      | SeqNo: <b>2070710</b> |      |  |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD | RPDLimit              | Qual |  |
| Alkalinity, Total (As CaCO3) | 30.3                    | 2.50               | 25.00     | 0           | 121  | 79.4                           | 136       |             |      |                       |      |  |

|                                      |                         |                    |           |             |      |                                |           |             |      |                       |      |  |
|--------------------------------------|-------------------------|--------------------|-----------|-------------|------|--------------------------------|-----------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2504661-001ADUP</b>    | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           |             |      | Prep Date: <b>5/1/2025</b>     |           |             |      | RunNo: <b>99418</b>   |      |  |
| Client ID: <b>Control-EFF-042825</b> | Batch ID: <b>R99418</b> |                    |           |             |      | Analysis Date: <b>5/1/2025</b> |           |             |      | SeqNo: <b>2070909</b> |      |  |
| Analyte                              | Result                  | RL                 | SPK value | SPK Ref Val | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD | RPDLimit              | Qual |  |
| Alkalinity, Total (As CaCO3)         | 244                     | 25.0               |           |             |      |                                |           | 250.1       | 2.59 | 20                    | D    |  |

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                            |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47545</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>mg/L</b> |      | Prep Date: <b>4/29/2025</b> |                                 |             | RunNo: <b>99463</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47545</b> |           |                    |      |                             | Analysis Date: <b>4/29/2025</b> |             |                     | SeqNo: <b>2071891</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Fluoride                   | ND     | 0.100                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Chloride                   | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Nitrite (as N)             | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Bromide                    | ND     | 0.600                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Nitrate (as N)             | ND     | 0.200                  |           |                    |      |                             |                                 |             |                     |                       |      |
| Ortho-Phosphate (as P)     | ND     | 0.400                  |           |                    |      |                             |                                 |             |                     |                       | Q    |
| Sulfate                    | ND     | 1.00                   |           |                    |      |                             |                                 |             |                     |                       |      |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

|                             |        |                        |           |             |                    |          |                             |                                 |      |                     |                       |  |
|-----------------------------|--------|------------------------|-----------|-------------|--------------------|----------|-----------------------------|---------------------------------|------|---------------------|-----------------------|--|
| Sample ID: <b>LCS-47545</b> |        | SampType: <b>LCS</b>   |           |             | Units: <b>mg/L</b> |          | Prep Date: <b>4/29/2025</b> |                                 |      | RunNo: <b>99463</b> |                       |  |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47545</b> |           |             |                    |          |                             | Analysis Date: <b>4/29/2025</b> |      |                     | SeqNo: <b>2071892</b> |  |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val | %REC               | LowLimit | HighLimit                   | RPD Ref Val                     | %RPD | RPDLimit            | Qual                  |  |
| Fluoride                    | 0.481  | 0.100                  | 0.5000    | 0           | 96.2               | 90       | 110                         |                                 |      |                     |                       |  |
| Chloride                    | 0.751  | 0.200                  | 0.7500    | 0           | 100                | 90       | 110                         |                                 |      |                     |                       |  |
| Nitrite (as N)              | 0.706  | 0.200                  | 0.7500    | 0           | 94.1               | 90       | 110                         |                                 |      |                     |                       |  |
| Bromide                     | 2.47   | 0.600                  | 2.500     | 0           | 98.6               | 90       | 110                         |                                 |      |                     |                       |  |
| Nitrate (as N)              | 0.749  | 0.200                  | 0.7500    | 0           | 99.9               | 90       | 110                         |                                 |      |                     |                       |  |
| Ortho-Phosphate (as P)      | 1.14   | 0.400                  | 1.250     | 0           | 91.5               | 90       | 110                         |                                 |      |                     |                       |  |
| Sulfate                     | 3.59   | 1.00                   | 3.750     | 0           | 95.7               | 90       | 110                         |                                 |      |                     |                       |  |

|                                   |        |                        |           |             |                    |          |                             |                                 |  |                     |                       |      |
|-----------------------------------|--------|------------------------|-----------|-------------|--------------------|----------|-----------------------------|---------------------------------|--|---------------------|-----------------------|------|
| Sample ID: <b>2504657-001CDUP</b> |        | SampType: <b>DUP</b>   |           |             | Units: <b>mg/L</b> |          | Prep Date: <b>4/29/2025</b> |                                 |  | RunNo: <b>99463</b> |                       |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47545</b> |           |             |                    |          |                             | Analysis Date: <b>4/29/2025</b> |  |                     | SeqNo: <b>2071894</b> |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val | %REC               | LowLimit | HighLimit                   | RPD Ref Val                     |  | %RPD                | RPDLimit              | Qual |
| Fluoride                          | ND     | 0.100                  |           |             |                    |          |                             | 0                               |  |                     | 20                    |      |
| Chloride                          | 4.60   | 0.200                  |           |             |                    |          |                             | 4.604                           |  | 0.174               | 20                    |      |
| Nitrite (as N)                    | ND     | 0.200                  |           |             |                    |          |                             | 0                               |  |                     | 20                    |      |
| Bromide                           | ND     | 0.600                  |           |             |                    |          |                             | 0                               |  |                     | 20                    |      |
| Nitrate (as N)                    | ND     | 0.200                  |           |             |                    |          |                             | 0                               |  |                     | 20                    |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |             |                    |          |                             | 0                               |  |                     | 20                    | Q    |

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                            |        |                 |           |             |                          |          |                      |             |                |              |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504657-001CDUP |        | SampType: DUP   |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             |                | RunNo: 99463 |      |  |
| Client ID: BATCH           |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071894 |              |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |
| Sulfate                    | 18.5   | 1.00            |           |             |                          |          |                      | 18.56       | 0.0701         | 20           |      |  |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

|                           |        |                 |           |             |                          |          |                      |             |                |          |      |
|---------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|----------|------|
| Sample ID: 2504657-001CMS |        | SampType: MS    |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             | RunNo: 99463   |          |      |
| Client ID: BATCH          |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071895 |          |      |
| Analyte                   | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit | Qual |
| Fluoride                  | 0.563  | 0.100           | 0.5000    | 0.07900     | 96.8                     | 80       | 120                  |             |                |          |      |
| Chloride                  | 5.34   | 0.200           | 0.7500    | 4.604       | 98.5                     | 80       | 120                  |             |                |          |      |
| Nitrite (as N)            | 0.735  | 0.200           | 0.7500    | 0           | 98.0                     | 80       | 120                  |             |                |          |      |
| Bromide                   | 2.52   | 0.600           | 2.500     | 0           | 101                      | 80       | 120                  |             |                |          |      |
| Nitrate (as N)            | 0.791  | 0.200           | 0.7500    | 0           | 105                      | 80       | 120                  |             |                |          |      |
| Ortho-Phosphate (as P)    | 0.952  | 0.400           | 1.250     | 0           | 76.2                     | 80       | 120                  |             |                |          | S    |
| Sulfate                   | 22.3   | 1.00            | 3.750     | 18.56       | 100                      | 80       | 120                  |             |                |          |      |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed and recovered within range.

|                            |        |                 |           |             |                          |          |                      |             |                |              |      |  |
|----------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504657-001CMSD |        | SampType: MSD   |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             |                | RunNo: 99463 |      |  |
| Client ID: BATCH           |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071896 |              |      |  |
| Analyte                    | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |
| Fluoride                   | 0.568  | 0.100           | 0.5000    | 0.07900     | 97.8                     | 80       | 120                  | 0.5630      | 0.884          | 20           |      |  |
| Chloride                   | 5.35   | 0.200           | 0.7500    | 4.604       | 99.1                     | 80       | 120                  | 5.343       | 0.0748         | 20           |      |  |
| Nitrite (as N)             | 0.738  | 0.200           | 0.7500    | 0           | 98.4                     | 80       | 120                  | 0.7350      | 0.407          | 20           |      |  |
| Bromide                    | 2.54   | 0.600           | 2.500     | 0           | 102                      | 80       | 120                  | 2.515       | 1.07           | 20           |      |  |
| Nitrate (as N)             | 0.799  | 0.200           | 0.7500    | 0           | 107                      | 80       | 120                  | 0.7910      | 1.01           | 20           |      |  |
| Ortho-Phosphate (as P)     | 1.08   | 0.400           | 1.250     | 0           | 86.8                     | 80       | 120                  | 0.9520      | 13.1           | 20           |      |  |
| Sulfate                    | 22.3   | 1.00            | 3.750     | 18.56       | 101                      | 80       | 120                  | 22.30       | 0.179          | 20           |      |  |

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                                   |        |                        |           |                                 |      |                             |                       |             |                     |          |      |
|-----------------------------------|--------|------------------------|-----------|---------------------------------|------|-----------------------------|-----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2504658-001CDUP</b> |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b>              |      | Prep Date: <b>4/29/2025</b> |                       |             | RunNo: <b>99463</b> |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47545</b> |           | Analysis Date: <b>4/29/2025</b> |      |                             | SeqNo: <b>2071898</b> |             |                     |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val                     | %REC | LowLimit                    | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Fluoride                          | ND     | 0.100                  |           |                                 |      |                             |                       | 0           |                     | 20       |      |
| Chloride                          | 3.57   | 0.200                  |           |                                 |      |                             |                       | 3.568       | 0.140               | 20       |      |
| Nitrite (as N)                    | ND     | 0.200                  |           |                                 |      |                             |                       | 0           |                     | 20       |      |
| Bromide                           | ND     | 0.600                  |           |                                 |      |                             |                       | 0           |                     | 20       |      |
| Nitrate (as N)                    | 1.11   | 0.200                  |           |                                 |      |                             |                       | 1.111       | 0.0900              | 20       |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |                                 |      |                             |                       | 0           |                     | 20       | Q    |
| Sulfate                           | 9.44   | 1.00                   |           |                                 |      |                             |                       | 9.438       | 0.0741              | 20       |      |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

|                           |        |                 |           |             |                          |          |                      |             |                |          |      |
|---------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|----------------|----------|------|
| Sample ID: 2504658-001CMS |        | SampType: MS    |           |             | Units: mg/L              |          | Prep Date: 4/29/2025 |             | RunNo: 99463   |          |      |
| Client ID: BATCH          |        | Batch ID: 47545 |           |             | Analysis Date: 4/29/2025 |          |                      |             | SeqNo: 2071899 |          |      |
| Analyte                   | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD           | RPDLimit | Qual |
| Fluoride                  | 0.426  | 0.100           | 0.5000    | 0.05200     | 74.8                     | 80       | 120                  |             |                |          | S    |
| Chloride                  | 3.57   | 0.200           | 0.7500    | 3.568       | 0.800                    | 80       | 120                  |             |                |          | S    |
| Nitrite (as N)            | 0.594  | 0.200           | 0.7500    | 0           | 79.2                     | 80       | 120                  |             |                |          | S    |
| Bromide                   | 2.03   | 0.600           | 2.500     | 0           | 81.3                     | 80       | 120                  |             |                |          |      |
| Nitrate (as N)            | 1.57   | 0.200           | 0.7500    | 1.111       | 60.8                     | 80       | 120                  |             |                |          | S    |
| Ortho-Phosphate (as P)    | 0.676  | 0.400           | 1.250     | 0           | 54.1                     | 80       | 120                  |             |                |          | S    |
| Sulfate                   | 10.7   | 1.00            | 3.750     | 9.438       | 34.1                     | 80       | 120                  |             |                |          | S    |

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Salinity by SM 2520B

|                             |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>MB-R99486</b> |        | SampType: <b>MBLK</b>   |           |             | Units: %                       |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072324</b> |      |                     |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity ND 0.000100

|                              |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99486</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>µS/cm</b>            |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072325</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 986 0.00100 1,000 0 98.6 79.1 119.1

|                                      |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|--------------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504661-001ADUP</b>    |        | SampType: <b>DUP</b>    |           |             | Units: %                       |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>Control-EFF-042825</b> |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072327</b> |      |                     |      |  |
| Analyte                              | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 0.0100 0.000100 0.01000 0 30

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504662-001ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: %                       |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99486</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99486</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072332</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 0.0100 0.000100 0.01000 0 30



**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Total Dissolved Solids by SM 2540C

|                             |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-R99442</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             |      | RunNo: <b>99442</b>   |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             |      | SeqNo: <b>2071396</b> |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                        |    |      |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|
| Total Dissolved Solids | ND | 5.00 |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|

|                              |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99442</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |                       |      | RunNo: <b>99442</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            | SeqNo: <b>2071397</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                        |     |      |       |   |     |    |     |  |  |  |  |
|------------------------|-----|------|-------|---|-----|----|-----|--|--|--|--|
| Total Dissolved Solids | 304 | 5.00 | 300.0 | 0 | 101 | 65 | 135 |  |  |  |  |
|------------------------|-----|------|-------|---|-----|----|-----|--|--|--|--|

|                            |        |                  |           |             |                         |          |                     |                |      |              |      |  |
|----------------------------|--------|------------------|-----------|-------------|-------------------------|----------|---------------------|----------------|------|--------------|------|--|
| Sample ID: 2504658-001CDUP |        | SampType: DUP    |           |             | Units: mg/L             |          | Prep Date: 5/2/2025 |                |      | RunNo: 99442 |      |  |
| Client ID: BATCH           |        | Batch ID: R99442 |           |             | Analysis Date: 5/2/2025 |          |                     | SeqNo: 2071399 |      |              |      |  |
| Analyte                    | Result | RL               | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val    | %RPD | RPDLimit     | Qual |  |

|                        |      |      |  |  |  |  |  |       |      |    |  |
|------------------------|------|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 97.0 | 5.00 |  |  |  |  |  | 89.00 | 8.60 | 30 |  |
|------------------------|------|------|--|--|--|--|--|-------|------|----|--|

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504662-003ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |                       |      | RunNo: <b>99442</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99442</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            | SeqNo: <b>2071406</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                        |     |      |  |  |  |  |  |       |      |    |  |
|------------------------|-----|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 232 | 5.00 |  |  |  |  |  | 216.0 | 7.14 | 30 |  |
|------------------------|-----|------|--|--|--|--|--|-------|------|----|--|

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                         |        |                         |           |             |                                |          |                            |             |                       |                     |      |  |
|-------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>MB</b>    |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/1/2024</b> |             |                       | RunNo: <b>99428</b> |      |  |
| Client ID: <b>MBLKW</b> |        | Batch ID: <b>R99428</b> |           |             | Analysis Date: <b>5/1/2024</b> |          |                            |             | SeqNo: <b>2071074</b> |                     |      |  |
| Analyte                 | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |

|                      |    |       |  |  |  |  |  |  |  |  |  |
|----------------------|----|-------|--|--|--|--|--|--|--|--|--|
| Total Organic Carbon | ND | 0.700 |  |  |  |  |  |  |  |  |  |
|----------------------|----|-------|--|--|--|--|--|--|--|--|--|

|                        |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS</b>  |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/1/2024</b> |                       |      | RunNo: <b>99428</b> |      |  |
| Client ID: <b>LCSW</b> |        | Batch ID: <b>R99428</b> |           |             | Analysis Date: <b>5/1/2024</b> |          |                            | SeqNo: <b>2071075</b> |      |                     |      |  |
| Analyte                | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                      |      |       |       |   |      |      |     |  |  |  |  |
|----------------------|------|-------|-------|---|------|------|-----|--|--|--|--|
| Total Organic Carbon | 21.7 | 0.700 | 25.00 | 0 | 86.6 | 79.6 | 120 |  |  |  |  |
|----------------------|------|-------|-------|---|------|------|-----|--|--|--|--|

|                               |        |                  |           |             |                         |          |                     |                |      |              |      |  |
|-------------------------------|--------|------------------|-----------|-------------|-------------------------|----------|---------------------|----------------|------|--------------|------|--|
| Sample ID: 2504661-001BDUP    |        | SampType: DUP    |           |             | Units: mg/L             |          | Prep Date: 5/1/2024 |                |      | RunNo: 99428 |      |  |
| Client ID: Control-EFF-042825 |        | Batch ID: R99428 |           |             | Analysis Date: 5/1/2024 |          |                     | SeqNo: 2071077 |      |              |      |  |
| Analyte                       | Result | RL               | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val    | %RPD | RPDLimit     | Qual |  |

|                      |      |       |  |  |  |  |  |       |       |    |  |
|----------------------|------|-------|--|--|--|--|--|-------|-------|----|--|
| Total Organic Carbon | 3.93 | 0.700 |  |  |  |  |  | 3.953 | 0.533 | 15 |  |
|----------------------|------|-------|--|--|--|--|--|-------|-------|----|--|

|                                  |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504662-003BMS</b> |        | SampType: <b>MS</b>     |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/1/2024</b> |                       |      | RunNo: <b>99428</b> |      |  |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>R99428</b> |           |             | Analysis Date: <b>5/1/2024</b> |          |                            | SeqNo: <b>2071086</b> |      |                     |      |  |
| Analyte                          | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                      |      |       |       |       |      |    |     |  |  |  |   |
|----------------------|------|-------|-------|-------|------|----|-----|--|--|--|---|
| Total Organic Carbon | 23.0 | 0.700 | 25.00 | 1.890 | 84.5 | 85 | 115 |  |  |  | S |
|----------------------|------|-------|-------|-------|------|----|-----|--|--|--|---|

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

|                           |        |                  |           |             |                         |          |                     |             |                |              |      |  |
|---------------------------|--------|------------------|-----------|-------------|-------------------------|----------|---------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504663-003BMS |        | SampType: MS     |           |             | Units: mg/L             |          | Prep Date: 5/2/2024 |             |                | RunNo: 99428 |      |  |
| Client ID: BATCH          |        | Batch ID: R99428 |           |             | Analysis Date: 5/2/2024 |          |                     |             | SeqNo: 2071094 |              |      |  |
| Analyte                   | Result | RL               | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |

|                      |      |       |       |       |      |    |     |  |  |  |  |
|----------------------|------|-------|-------|-------|------|----|-----|--|--|--|--|
| Total Organic Carbon | 23.7 | 0.700 | 25.00 | 2.430 | 85.0 | 85 | 115 |  |  |  |  |
|----------------------|------|-------|-------|-------|------|----|-----|--|--|--|--|

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                                   |        |                         |           |             |                                |          |                            |             |                       |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>2504663-003BMSD</b> |        | SampType: <b>MSD</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2024</b> |             |                       | RunNo: <b>99428</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99428</b> |           |             | Analysis Date: <b>5/2/2024</b> |          |                            |             | SeqNo: <b>2071097</b> |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |
| Total Organic Carbon              | 23.6   | 0.700                   | 25.00     | 2.430       | 84.5                           | 85       | 115                        | 23.68       | 0.525                 | 15                  | S    |  |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed and recovered within range.

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

| Sample ID: <b>MB-47613</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072269</b> |      |          |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                    | ND     | 250                    |           |                    |      |                                |           |                       |      |          |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                                |           |                       |      |          |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                                |           |                       |      |          |      |
| Sodium                     | ND     | 100                    |           |                    |      |                                |           |                       |      |          |      |

| Sample ID: <b>LCS-47613</b> |        | SampType: <b>LCS</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072270</b> |      |          |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                     | 936    | 250                    | 1,000     | 0                  | 93.6 | 80                             | 120       |                       |      |          |      |
| Magnesium                   | 1,000  | 50.0                   | 1,000     | 0                  | 100  | 80                             | 120       |                       |      |          |      |
| Potassium                   | 981    | 50.0                   | 1,000     | 0                  | 98.1 | 80                             | 120       |                       |      |          |      |
| Sodium                      | 1,010  | 100                    | 1,000     | 0                  | 101  | 80                             | 120       |                       |      |          |      |

| Sample ID: <b>2504661-001DMS</b>     |        | SampType: <b>MS</b>    |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |      |          |      |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>Control-EFF-042825</b> |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072272</b> |      |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                              | 61,100 | 250                    | 1,000     | 62,530             | -145 | 75                             | 125       |                       |      |          | S    |
| Magnesium                            | 6,310  | 50.0                   | 1,000     | 5,559              | 75.1 | 75                             | 125       |                       |      |          |      |
| Potassium                            | 4,670  | 50.0                   | 1,000     | 3,892              | 77.8 | 75                             | 125       |                       |      |          |      |
| Sodium                               | 15,600 | 100                    | 1,000     | 15,220             | 43.0 | 75                             | 125       |                       |      |          | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

| Sample ID: <b>2504661-001DMSD</b>    |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |       |          |      |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>Control-EFF-042825</b> |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072274</b> |       |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Calcium                              | 60,500 | 250                    | 1,000     | 62,530             | -205 | 75                             | 125       | 61,080                | 0.984 | 20       | S    |
| Magnesium                            | 6,280  | 50.0                   | 1,000     | 5,559              | 72.1 | 75                             | 125       | 6,310                 | 0.478 | 20       | S    |

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

| Sample ID: <b>2504661-001DMSD</b>    |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99484</b>   |        |          |      |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|--------|----------|------|
| Client ID: <b>Control-EFF-042825</b> |        | Batch ID: <b>47613</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072274</b> |        |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD   | RPDLimit | Qual |
| Potassium                            | 4,670  | 50.0                   | 1,000     | 3,892              | 77.6 | 75                             | 125       | 4,669                 | 0.0338 | 20       |      |
| Sodium                               | 15,400 | 100                    | 1,000     | 15,220             | 13.7 | 75                             | 125       | 15,650                | 1.88   | 20       | S    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

Total Metals by EPA 6020B

|                            |        |                        |           |                    |      |                             |                                 |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47553</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/30/2025</b> |                                 |             | RunNo: <b>99436</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47553</b> |           |                    |      |                             | Analysis Date: <b>4/30/2025</b> |             |                     | SeqNo: <b>2071226</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                    | ND     | 250                    |           |                    |      |                             |                                 |             |                     |                       |      |
| Magnesium                  | ND     | 10.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Potassium                  | ND     | 30.0                   |           |                    |      |                             |                                 |             |                     |                       |      |
| Sodium                     | ND     | 100                    |           |                    |      |                             |                                 |             |                     |                       |      |

|                           |        |                 |           |             |                          |          |                      |             |              |          |      |
|---------------------------|--------|-----------------|-----------|-------------|--------------------------|----------|----------------------|-------------|--------------|----------|------|
| Sample ID: 2504589-001AMS |        | SampType: MS    |           |             | Units: µg/L              |          | Prep Date: 4/30/2025 |             | RunNo: 99436 |          |      |
| Client ID: BATCH          |        | Batch ID: 47553 |           |             | Analysis Date: 4/30/2025 |          | SeqNo: 2071239       |             |              |          |      |
| Analyte                   | Result | RL              | SPK value | SPK Ref Val | %REC                     | LowLimit | HighLimit            | RPD Ref Val | %RPD         | RPDLimit | Qual |
| Calcium                   | 2,160  | 250             | 1,000     | 1,259       | 90.6                     | 75       | 125                  |             |              |          |      |
| Magnesium                 | 1,130  | 10.0            | 1,000     | 101.1       | 103                      | 75       | 125                  |             |              |          |      |
| Potassium                 | 1,830  | 30.0            | 1,000     | 886.4       | 94.8                     | 75       | 125                  |             |              |          |      |
| Sodium                    | 6,450  | 100             | 1,000     | 5,820       | 62.8                     | 75       | 125                  |             |              |          | SE   |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                   |        |                        |           |                                 |      |                             |                       |             |                     |          |      |
|-----------------------------------|--------|------------------------|-----------|---------------------------------|------|-----------------------------|-----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2504589-001AMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b>              |      | Prep Date: <b>4/30/2025</b> |                       |             | RunNo: <b>99436</b> |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47553</b> |           | Analysis Date: <b>4/30/2025</b> |      |                             | SeqNo: <b>2071241</b> |             |                     |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val                     | %REC | LowLimit                    | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Calcium                           | 2,200  | 250                    | 1,000     | 1,259                           | 94.2 | 75                          | 125                   | 2,165       | 1.67                | 20       |      |
| Magnesium                         | 1,140  | 10.0                   | 1,000     | 101.1                           | 104  | 75                          | 125                   | 1,130       | 0.700               | 20       |      |
| Potassium                         | 1,860  | 30.0                   | 1,000     | 886.4                           | 97.4 | 75                          | 125                   | 1,834       | 1.41                | 20       |      |
| Sodium                            | 6,550  | 100                    | 1,000     | 5,820                           | 73.4 | 75                          | 125                   | 6,448       | 1.63                | 20       | SE   |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                             |        |                        |           |             |                                 |          |                             |             |                       |          |      |
|-----------------------------|--------|------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>LCS-47553</b> |        | SampType: <b>LCS</b>   |           |             | Units: <b>µg/L</b>              |          | Prep Date: <b>4/30/2025</b> |             | RunNo: <b>99436</b>   |          |      |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47553</b> |           |             | Analysis Date: <b>4/30/2025</b> |          |                             |             | SeqNo: <b>2071267</b> |          |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                     | 949    | 250                    | 1,000     | 0           | 94.9                            | 80       | 120                         |             |                       |          |      |

**Work Order:** 2504661  
**CLIENT:** Friedman & Bruya  
**Project:** 504455

## QC SUMMARY REPORT

Total Metals by EPA 6020B

| Sample ID: <b>LCS-47553</b> |        | SampType: <b>LCS</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>4/30/2025</b>     |           | RunNo: <b>99436</b>   |      |          |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|---------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47553</b> |           |                    |      | Analysis Date: <b>4/30/2025</b> |           | SeqNo: <b>2071267</b> |      |          |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Magnesium                   | 1,010  | 10.0                   | 1,000     | 0                  | 101  | 80                              | 120       |                       |      |          |      |
| Potassium                   | 1,010  | 30.0                   | 1,000     | 0                  | 101  | 80                              | 120       |                       |      |          |      |
| Sodium                      | 1,020  | 100                    | 1,000     | 0                  | 102  | 80                              | 120       |                       |      |          |      |

Client Name: FB

Work Order Number: 2504661

Logged by: Morgan Wilson

Date Received: 4/28/2025 2:39:00 PM

## Chain of Custody

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

## Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

## Special Handling (if applicable)

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

|                      |                      |       |                                                                                                                               |
|----------------------|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date: | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |       |                                                                                                                               |
| Client Instructions: | <input type="text"/> |       |                                                                                                                               |

17. Additional remarks:

## Item Information

| Item # | Temp °C |
|--------|---------|
| Sample | 6.0     |

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



145-1457

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

Page # \_\_\_\_\_ of \_\_\_\_\_

**TURNAROUND TIME**

☒ Standard TAT  
☐ RUSH\_\_\_\_\_

Rush charges authorized by: \_\_\_\_\_

---

**SAMPLE DISPOSAL**

Dispose after 30 days  
Return samples  
Will call with instructions

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

April 30, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the results from the testing of material submitted on April 28, 2025 from the Glacier Northwest AS230067, F&BI 504455 project. There are 39 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Marc Chalfant  
ASP0430R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 28, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504455 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504455 -01           | Control-EFF-042825       |
| 504455 -02           | Control-Port3-042825     |
| 504455 -03           | Control-Port2-042825     |
| 504455 -04           | Control-Port1-042825     |
| 504455 -05           | 20ZVI-EFF-042825         |
| 504455 -06           | 20ZVI-Port3-042825       |
| 504455 -07           | 20ZVI-Port2-042825       |
| 504455 -08           | 20ZVI-Port1-042825       |
| 504455 -09           | 50ZVI-EFF-042825         |
| 504455 -10           | 50ZVI-Port3-042825       |
| 504455 -11           | 50ZVI-Port2-042825       |
| 504455 -12           | 50ZVI-Port1-042825       |
| 504455 -13           | Influent-042825          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, Fl, Br) were sent to Alliance Technical Group for testing. The report will be forwarded upon receipt.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-01 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-01 x5.269           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 440 |
| Copper  | 2.6 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port3-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25             | Lab ID:     | 504455-02 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504455-02 x5.276           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
| Copper  | 2.6 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port2-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25             | Lab ID:     | 504455-03 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504455-03 x5.277           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 440  |
| Copper  | <2.5 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port1-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25             | Lab ID:     | 504455-04 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504455-04 x5.278           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 420  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-05 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504455-05 x5.150           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 5.2 |
|--------|-----|



FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-05 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504455-05 x5.270           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 22 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port3-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-06 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-06 x5.279           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 91   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port2-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-07 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-07 x5.160           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 8.8 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port2-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-07 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-07 x5.280           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 200 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port1-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-08 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-08 x5.161           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |    |
|--------|----|
| Copper | 22 |
|--------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port1-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-08 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-08 x5.281           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 250 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-09 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504455-09 x5.271           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port3-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-10 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-10 x5.282           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 13 |
| Copper  | 11 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port2-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-11 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-11 x5.283           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 57   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port1-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-12 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-12 x5.287           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 150  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25        | Lab ID:     | 504455-13 x5               |
| Date Analyzed:    | 04/29/25        | Data File:  | 504455-13 x5.275           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 640  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25       | Lab ID:     | I5-351 mb2                 |
| Date Analyzed:    | 04/29/25       | Data File:  | I5-351 mb2.284             |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <0.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25       | Lab ID:     | I5-358 mb2                 |
| Date Analyzed:    | 04/29/25       | Data File:  | I5-358 mb2.296             |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-01 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-01 x5.253           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 400  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port3-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25             | Lab ID:     | 504455-02 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504455-02 x5.257           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 390  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port2-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25             | Lab ID:     | 504455-03 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504455-03 x5.258           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 410  |
| Copper  | <2.5 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port1-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25             | Lab ID:     | 504455-04 x5               |
| Date Analyzed:    | 04/29/25             | Data File:  | 504455-04 x5.259           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 400  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-05 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504455-05 x5.254           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 4.8  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port3-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-06 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-06 x5.263           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 14   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port2-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-07 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-07 x5.264           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 170  |
| Copper  | <2.5 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port1-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-08 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-08 x5.265           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 170  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25         | Lab ID:     | 504455-09 x5               |
| Date Analyzed:    | 04/29/25         | Data File:  | 504455-09 x5.255           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1   |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port3-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-10 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-10 x5.266           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 1.9  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port2-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-11 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-11 x5.267           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 40   |
| Copper  | <2.5 |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port1-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25           | Lab ID:     | 504455-12 x5               |
| Date Analyzed:    | 04/29/25           | Data File:  | 504455-12 x5.268           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 190  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-042825 | Client:     | Aspect Consulting          |
| Date Received:    | 04/28/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25        | Lab ID:     | 504455-13 x5               |
| Date Analyzed:    | 04/29/25        | Data File:  | 504455-13 x5.256           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | 670  |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25       | Lab ID:     | I5-359 mb2                 |
| Date Analyzed:    | 04/29/25       | Data File:  | I5-359 mb2.260             |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <0.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/29/25       | Lab ID:     | I5-357 mb2                 |
| Date Analyzed:    | 04/29/25       | Data File:  | I5-357 mb2.272             |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
| Copper  | <2.5 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/30/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504455

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 504402-01 x20 (Matrix Spike)

| Analyte | Reporting<br>Units | Spike<br>Level | Sample<br>Result | Percent<br>Recovery<br>MS | Percent<br>Recovery<br>MSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|------------------|---------------------------|----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 4.92             | 115 b                     | 105 b                      | 75-125                 | 9 b               |
| Copper  | ug/L (ppb)         | 20             | 115              | 143 b                     | 78 b                       | 75-125                 | 59 b              |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Acceptance<br>Criteria |
|---------|--------------------|----------------|----------------------------|------------------------|
| Arsenic | ug/L (ppb)         | 10             | 102                        | 80-120                 |
| Copper  | ug/L (ppb)         | 20             | 103                        | 80-120                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/30/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504455

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 91                         | 90                          | 80-120                 | 1                 |
| Copper  | ug/L (ppb)         | 20             | 94                         | 94                          | 80-120                 | 0                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/30/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504455

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 90                         | 89                          | 80-120                 | 1                 |
| Copper  | ug/L (ppb)         | 20             | 99                         | 98                          | 80-120                 | 1                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/30/25

Date Received: 04/28/25

Project: Glacier Northwest AS230067, F&BI 504455

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 94                         | 92                          | 80-120                 | 2                 |
| Copper  | ug/L (ppb)         | 20             | 96                         | 94                          | 80-120                 | 2                 |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

504455 Andrew Yonkoffski

SAMPLE CHAIN OF CUSTODY 04/28/25 J3

Report To Delia Massey, marcoraunt  
Company Aspect Consulting  
Address FlO 2nd Ave Suite 550  
City, State, ZIP Seattle, WA, 98104  
Phone 413-5407 Email Delia.Massey@aspectintec.com

|                                                                                                      |                                                   |                         |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------|
| SAMPLERS (signature)<br><u>Emily Ruzsen</u>                                                          |                                                   | PO #<br><u>AS230067</u> |
| PROJECT NAME<br><u>Glacier Northwest</u>                                                             | INVOICE TO<br><u>Please invoice through Coupa</u> |                         |
| REMARKS<br><u>Field Filtered tar T/D</u><br><u>Mura's</u><br><u>Project specific RLS? - Yes / No</u> |                                                   |                         |

|                                                                                                                                                                         |                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| TURNAROUND TIME<br><input type="checkbox"/> Standard turnaround<br><input checked="" type="checkbox"/> RUSH 24-hr - Only As and Cu<br>Rush charges authorized by: _____ | SAMPLE DISPOSAL<br><input type="checkbox"/> Archive samples<br><input type="checkbox"/> Other _____<br>Default: Dispose after 30 days |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|

| Sample ID               | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                      |                           |                                  |                                         |                                     |                                         |                                          |                                                       |                                                       |                                                      |   |   | Notes |   |   |   |   |  |                                                |
|-------------------------|--------|--------------|--------------|-------------|-----------|-----------------------------------------|---------------------------|----------------------------------|-----------------------------------------|-------------------------------------|-----------------------------------------|------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|---|---|-------|---|---|---|---|--|------------------------------------------------|
|                         |        |              |              |             |           | Total Dissolved Solids (6020B) NWTPH-Dx | Salinity (6020B) NWTPH-Gx | Alkalinity (6020B) BTEX EPA 8021 | Total Organic Carbon (6020B) NWTPH-HO/D | Total As + Cu (6020B) VOCs EPA 8260 | Dissolved As + Cu (6020B) PAHs EPA 8270 | Br, Cl, F, SO4 (EPA 300.0) PCBs EPA 8082 | Total Metals (As, Cu, Fe, Mg, Mn, Ni, Pb, Zn) (6020B) | Dissolved Metals (As, Cu, Fe, Mn, Mg, Ni, Na) (6020B) | NO2 as N, NO3 as N, Or. Phosphate as PO4 (EPA 300.0) |   |   |       |   |   |   |   |  |                                                |
| Control - EFF-042825    | 01A-D  | 4/28/25      | 0930         | W           | 4         | X                                       | X                         | X                                | X                                       |                                     |                                         | X                                        | X                                                     | X                                                     | X                                                    | X |   |       |   |   |   |   |  | RUSH TAT for As and Cu Results for All Samples |
| Control - PORT 3-042825 | 02 A-B |              | 1040         |             | 2         |                                         |                           |                                  |                                         | X                                   | X                                       |                                          | X                                                     | X                                                     |                                                      |   |   |       |   |   |   |   |  |                                                |
| Control - PORT 2-042825 | 03     |              | 1140         |             | 2         |                                         |                           |                                  |                                         | X                                   | X                                       |                                          | X                                                     | X                                                     |                                                      |   |   |       |   |   |   |   |  |                                                |
| Control - PORT 1-042825 | 04     |              | 1230         |             | 2         |                                         |                           |                                  |                                         | X                                   | X                                       |                                          | X                                                     | X                                                     |                                                      |   |   |       |   |   |   |   |  |                                                |
| 202V1-EFF-042825        | 05 A-D |              | 0935         |             | 4         | X                                       | X                         | X                                | X                                       | X                                   | X                                       | X                                        | X                                                     | X                                                     | X                                                    | X | X | X     | X | X | X | X |  |                                                |
| 202V1-PORT 3-042825     | 06 A-B |              | 1045         |             | 2         |                                         |                           |                                  |                                         |                                     |                                         | X                                        | X                                                     | X                                                     |                                                      |   |   |       |   |   |   |   |  |                                                |
| 202V1-PORT 2-042825     | 07     |              | 1145         |             | 2         |                                         |                           |                                  |                                         |                                     |                                         | X                                        | X                                                     | X                                                     |                                                      |   |   |       |   |   |   |   |  |                                                |
| 202V1-PORT 1-042825     | 08     |              | 1235         |             | 2         |                                         |                           |                                  |                                         |                                     |                                         | X                                        | X                                                     | X                                                     |                                                      |   |   |       |   |   |   |   |  |                                                |
| 502V1-EFF-042825        | 09 A-D |              | 0940         |             | 4         | X                                       | X                         | X                                | X                                       | X                                   | X                                       | X                                        | X                                                     | X                                                     | X                                                    | X | X | X     | X | X | X | X |  |                                                |
| 502V1-PORT 3-042825     | 10 A-B |              | 1050         |             | 2         |                                         |                           |                                  |                                         | X                                   | X                                       |                                          | X                                                     | X                                                     |                                                      |   |   |       |   |   |   |   |  |                                                |

| SIGNATURE        |                     | PRINT NAME |                     | COMPANY |                            | DATE |                | TIME |              |
|------------------|---------------------|------------|---------------------|---------|----------------------------|------|----------------|------|--------------|
| Relinquished by: | <u>Emily Ruzsen</u> |            | <u>EMILY RUZSEN</u> |         | <u>ASPECT</u>              |      | <u>4/28/25</u> |      | <u>14:50</u> |
| Received by:     | <u>mclm</u>         |            | <u>Dhan Phan</u>    |         | <u>FEET</u>                |      | <u>4/28/25</u> |      | <u>1452</u>  |
| Relinquished by: |                     |            |                     |         |                            |      |                |      |              |
| Received by:     |                     |            |                     |         | <u>Samples received at</u> |      | <u>4</u>       |      | <u>00</u>    |

Friedman & Bruya, Inc.  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

04/28/25 T3

Report To Delia Massey, Marc Chabante

Company ASPECT Consulting

Address 710 2nd Ave. Suite 550

City, State, ZIP Seattle, WA 98109

Phone 206-413-5407 Email Erin.Davis-masssey@Gadsyncr.com

|                                                                              |                                             |
|------------------------------------------------------------------------------|---------------------------------------------|
| SAMPLERS (signature)<br><i>Emily Ruder</i>                                   |                                             |
| PROJECT NAME<br>Glacier Northwest                                            | PO #<br>AS230067                            |
| REMARKS<br>Field Filtered for T/D Metals<br>Project specific PLS? - Yes / No | INVOICE TO<br>Please Invoice through Courpa |

TURNAROUND TIME

☐ Standard turnaround

☒ RUSH 24-hr - *only as cond. & results permit*

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

☐ Archive samples

☐ Other \_\_\_\_\_

Default: Dispose after 30 days

[illegible]

**Friedman & Bruya, Inc.**  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

| SIGNATURE                               | PRINT NAME     | COMPANY             | DATE    | TIME  |
|-----------------------------------------|----------------|---------------------|---------|-------|
| Relinquished by: <i>Samuel R. Rosen</i> | EMILY R. ROSEN | ASPECT              | 4/28/05 | 14:50 |
| Received by: <i>m/m/grams</i>           | Dhan Pham      | FE B I              | 4/28/05 | 1450  |
| Relinquished by:                        |                |                     |         |       |
| Received by:                            |                | Samples received at | 4 oc    |       |

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504455 CLIENT Aspect INITIALS/DATE: NA 04/28/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 4 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/Date: AP 4/28/25  
\*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                     |                                           |
|--------------------|---------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input type="checkbox"/> Yes <input type="checkbox"/> No            | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input type="checkbox"/> Yes <input type="checkbox"/> No            | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                                           |
| Relinquished       | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                                           |
| Requested analysis | <input type="checkbox"/> Yes <input type="checkbox"/> On Hold       |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\*            Number of unused TO17 tubes           

\*\*Fill out Green manifolds billing sheet

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 1, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the results from the testing of material submitted on April 29, 2025 from the Glacier Northwest AS230067, F&BI 504476 project. There are 36 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkofski, Marc Chalfant  
ASP0501R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 29, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504476 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504476 -01           | Control-EFF-042925       |
| 504476 -02           | Control-Port 3-042925    |
| 504476 -03           | Control-Port 2-042925    |
| 504476 -04           | Control-Port 1-042925    |
| 504476 -05           | 20ZVI-EFF-042925         |
| 504476 -06           | 20ZVI-Port 3-042925      |
| 504476 -07           | 20ZVI-Port 2-042925      |
| 504476 -08           | 20ZVI-Port 1-042925      |
| 504476 -09           | 50ZVI-EFF-042925         |
| 504476 -10           | 50ZVI-Port 3-042925      |
| 504476 -11           | 50ZVI-Port 2-042925      |
| 504476 -12           | 50ZVI-Port 1-042925      |
| 504476 -13           | INFLUENT-042925          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, Fl, Br) were sent to Alliance Technical Group for testing. The report is enclosed.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25           | Lab ID:     | 504476-01 x5               |
| Date Analyzed:    | 04/30/25           | Data File:  | 504476-01 x5.232           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 350 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port 3-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25              | Lab ID:     | 504476-02 x5               |
| Date Analyzed:    | 04/30/25              | Data File:  | 504476-02 x5.236           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port 2-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25              | Lab ID:     | 504476-03 x5               |
| Date Analyzed:    | 04/30/25              | Data File:  | 504476-03 x5.237           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 460 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port 1-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25              | Lab ID:     | 504476-04 x5               |
| Date Analyzed:    | 04/30/25              | Data File:  | 504476-04 x5.238           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 460 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25         | Lab ID:     | 504476-05 x5               |
| Date Analyzed:    | 04/30/25         | Data File:  | 504476-05 x5.233           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 29 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port 3-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-06 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-06 x5.239           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 50 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port 2-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-07 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-07 x5.240           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 130 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port 1-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-08 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-08 x5.241           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 230 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25         | Lab ID:     | 504476-09 x5               |
| Date Analyzed:    | 04/30/25         | Data File:  | 504476-09 x5.234           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.7 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port 3-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-10 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-10 x5.244           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 9.8 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port 2-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-11 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-11 x5.245           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 29 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port 1-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-12 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-12 x5.246           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 77 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25        | Lab ID:     | 504476-13 x5               |
| Date Analyzed:    | 04/30/25        | Data File:  | 504476-13 x5.235           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 830 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25       | Lab ID:     | I5-365 mb                  |
| Date Analyzed:    | 04/30/25       | Data File:  | I5-365 mb.130              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
|---------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25       | Lab ID:     | I5-365 mb                  |
| Date Analyzed:    | 04/30/25       | Data File:  | I5-365 mb.130              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
|---------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25           | Lab ID:     | 504476-01 x5               |
| Date Analyzed:    | 04/30/25           | Data File:  | 504476-01 x5.169           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port 3-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25              | Lab ID:     | 504476-02 x5               |
| Date Analyzed:    | 04/30/25              | Data File:  | 504476-02 x5.173           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 390 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port 2-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25              | Lab ID:     | 504476-03 x5               |
| Date Analyzed:    | 04/30/25              | Data File:  | 504476-03 x5.174           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 430 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port 1-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25              | Lab ID:     | 504476-04 x5               |
| Date Analyzed:    | 04/30/25              | Data File:  | 504476-04 x5.175           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 440 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25         | Lab ID:     | 504476-05 x5               |
| Date Analyzed:    | 04/30/25         | Data File:  | 504476-05 x5.170           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 5.7 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port 3-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-06 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-06 x5.176           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 42 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port 2-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-07 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-07 x5.177           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 100 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port 1-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-08 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-08 x5.178           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 150 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25         | Lab ID:     | 504476-09 x5               |
| Date Analyzed:    | 04/30/25         | Data File:  | 504476-09 x5.171           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <1 j |
|---------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port 3-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-10 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-10 x5.181           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |       |
|---------|-------|
| Arsenic | 2.9 j |
|---------|-------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port 2-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-11 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-11 x5.182           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 21 |
|---------|----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-Port 1-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25            | Lab ID:     | 504476-12 x5               |
| Date Analyzed:    | 04/30/25            | Data File:  | 504476-12 x5.183           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 14 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-042925 | Client:     | Aspect Consulting          |
| Date Received:    | 04/29/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25        | Lab ID:     | 504476-13 x5               |
| Date Analyzed:    | 04/30/25        | Data File:  | 504476-13 x5.172           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 820 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25       | Lab ID:     | I5-366 mb                  |
| Date Analyzed:    | 04/30/25       | Data File:  | I5-366 mb.133              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |        |
|---------|--------|
| Arsenic | <0.2 j |
|---------|--------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 04/30/25       | Lab ID:     | I5-366 mb                  |
| Date Analyzed:    | 04/30/25       | Data File:  | I5-366 mb.133              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |        |
|---------|--------|
| Arsenic | <0.2 j |
|---------|--------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/01/25

Date Received: 04/29/25

Project: Glacier Northwest AS230067, F&BI 504476

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 99                         | 99                          | 80-120                 | 0                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/01/25

Date Received: 04/29/25

Project: Glacier Northwest AS230067, F&BI 504476

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 99                         | 99                          | 80-120                 | 0                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/01/25

Date Received: 04/29/25

Project: Glacier Northwest AS230067, F&BI 504476

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 98                         | 98                          | 80-120                 | 0                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/01/25

Date Received: 04/29/25

Project: Glacier Northwest AS230067, F&BI 504476

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 98                         | 98                          | 80-120                 | 0                 |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

504476

Andrew Yonkotski

## SAMPLE CHAIN OF CUSTODY

04/29/85 JS/C2

Page # 1 of 2

Report To Devia Massey, MarchalfontCompany Aspect ConsultingAddress 7102nd Ave, Suite 550City, State, ZIP Seattle, WA 98104Phone 206-413-5407 Email Devia.Massey@

GEOSTATS.COM

SAMPLERS (signature)

PROJECT NAME Glacier NorthwestPO # AS230067

REMARKS

Field Criteria for T/D metals

Project Specific RLS - Yes / No

INVOICE TO

Please invoice through company

TURNAROUND TIME 45 daysStandard Turnaround 45 days  
RUSH 24-hr - AS230067  
Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days  
Archive Samples  
Other

| Sample ID              | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Notes                                             |
|------------------------|--------|--------------|--------------|-------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Control - EFF-042925   | 01A-E  | 4/29/25      | 1010         | W           | 5         | <input checked="" type="checkbox"/> Total Dissolved Solids<br><input checked="" type="checkbox"/> NWTPH D <sub>50</sub><br><input checked="" type="checkbox"/> Acidity (Sm 2540B)<br><input checked="" type="checkbox"/> NWTPH C <sub>50</sub><br><input checked="" type="checkbox"/> Alkalinity (Sm 2540B)<br><input checked="" type="checkbox"/> BTEX EPA 8021<br><input checked="" type="checkbox"/> Total Organic Carbon (Sm 5510)<br><input checked="" type="checkbox"/> VOCs EPA 8260<br><input checked="" type="checkbox"/> Total H <sub>2</sub> Cu (6020B)<br><input checked="" type="checkbox"/> PAHs EPA 8270<br><input checked="" type="checkbox"/> Dissolved H <sub>2</sub> Cu (6020B)<br><input checked="" type="checkbox"/> PCBs EPA 8082<br><input checked="" type="checkbox"/> Total Metals (As, Cd, Cu, Pb, Mn, Ni, V) (6020B)<br><input checked="" type="checkbox"/> Dissolved Metals (As, Cd, Cu, Pb, Mn, Ni, V) (6020B)<br><input checked="" type="checkbox"/> NO <sub>3</sub> -N, NO <sub>2</sub> -N, NH <sub>4</sub> -N (6020B)<br><input checked="" type="checkbox"/> P, PO <sub>4</sub> -P (6020B)<br><input checked="" type="checkbox"/> PCP (Sm 8270C-15)<br><input checked="" type="checkbox"/> Br, F, Cu, SO <sub>4</sub> (EPA 300.0) | RUSH TMT Only<br>AS+results<br>FOR ALL<br>SAMPLES |
| Control - PORT3-042925 | 02A-B  |              | 1205         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |
| Control - PORT2-042925 | 03     |              | 1235         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |
| Control - PORT1-042925 | 04     |              | 1315         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |
| 202V1 - EFF-042925     | 05A-D  |              | 1000         |             | 4         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |
| 202V1 - PORT3-042925   | 06A-B  |              | 1155         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |
| 202V1 - PORT2-042925   | 07     |              | 1230         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |
| 202V1 - PORT1-042925   | 08     |              | 1310         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |
| 502V1 - EFF-042925     | 09A-D  |              | 1005         |             | 4         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |
| 502V1 - PORT3-042925   | 10A-B  |              | 1200         |             | 2         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                   |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman &amp; Bruya, Inc.

5500 4th Avenue S

Seattle, WA 98108

Ph. (206) 285-8282

FORMS\COC\COC.DOC

|                  |                     |                  |                     |
|------------------|---------------------|------------------|---------------------|
| Relinquished by: | <u>Emily Pussem</u> | Relinquished by: | <u>Emily Pussem</u> |
| Received by:     | <u>Paul Khan</u>    | Received by:     | <u>Paul Khan</u>    |
| Relinquished by: |                     | Relinquished by: |                     |
| Received by:     |                     | Received by:     |                     |

Samples received at 2 o'clock

504476

Andrew Yonkotski

## SAMPLE CHAIN OF CUSTODY

04/29/85

J5/C2

Page # 2 of 2

Report To: Delia Massey, Marc Chalfant

Company: Aspect Consulting

Address: 710 2nd Ave, Suite 550

City, State, ZIP: Seattle, WA, 98104

Phone: 206-413-5407 Email: Delia.Massey@aspect.com

SAMPLERS (signature)  
Emily Ruston

PO #

AS230064

PROJECT NAME  
Clacier Northwest

REMARKS

Field Filtered for T/D metals

Project Specific Rls - Yes / No

INVOICE TO

Please Invoice through compa

TURNAROUND TIME

Standard Turnaround  
X RUSH 24-hr - only Asst for  
Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days  
Archive Samples  
Other

## ANALYSES REQUESTED

☒ NWTPH-Dx  
☒ NWTPH-Cx  
☒ BTEX EPA 8021  
☒ VOCs EPA 8260  
☒ PAHs EPA 8270  
☒ PCBs EPA 8082  
☒ Dissolved Metals (As, Cu, Fe, Mn, Ni, Pb, Zn) (EPA 8020)  
☒ PCE (EPA 8270)

Notes

RUSH TAT only  
Asst and Cu Results

502V1-PORT-042925  
 502V1-PORT-042925  
 INFLUENT-042925

11 A-B  
 12  
 13 A-E

4/29/25  
 12  
 13

1240  
 1320  
 1330

W  
 2  
 5

2  
 2  
 5

X  
 X  
 X

X  
 X  
 X

X  
 X  
 X

X  
 X  
 X

X  
 X  
 X

X  
 X  
 X

## SIGNATURE

## PRINT NAME

## COMPANY

## DATE

## TIME

Friedman &amp; Bruya, Inc.

5500 4th Avenue S

Seattle, WA 98108

Ph. (206) 285-8282

Relinquished by: Emily Ruston

Received by: J. M.

PRINT NAME

Emily Ruston

COMPANY

ASPECT

DATE

4/29/85

TIME

16:50

Relinquished by:

Received by:

Ph. (206) 285-8282

FBI

Samples received at

2:00

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504476 CLIENT Aspect INITIALS/ AP  
DATE: 4/29/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/ AP  
\*or other representative documents, letters, and/or shipping memos Date: 4/29/25

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |                                           |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 6, 2025

Andrew Yonkofski, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

PRINTINGHERE

Included are the results from the testing of material submitted on April 30, 2025 from the Glacier Northwest AS230067, F&BI 504506 project. There are 32 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Delia Massey, Marc Chalfant  
ASP0506R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on April 30, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 504506 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 504506 -01           | Control-EFF-043025       |
| 504506 -02           | Control-Port3-043025     |
| 504506 -03           | Control-Port2-043025     |
| 504506 -04           | Control-Port1-043025     |
| 504506 -05           | 20ZV1-EFF-043025         |
| 504506 -06           | 20ZV1-Port3-043025       |
| 504506 -07           | 20ZV1-Port2-043025       |
| 504506 -08           | 20ZV1-Port1-043025       |
| 504506 -09           | 50ZV1-EFF-043025         |
| 504506 -10           | 50ZV1-Port3-043025       |
| 504506 -11           | 50ZV1-Port2-043025       |
| 504506 -12           | 50ZV1-Port1-043025       |
| 504506 -13           | Influent-043025          |

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-01 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-01 x5.151           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 290 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port3-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25             | Lab ID:     | 504506-02 x5               |
| Date Analyzed:    | 05/01/25             | Data File:  | 504506-02 x5.152           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 360 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port2-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25             | Lab ID:     | 504506-03 x5               |
| Date Analyzed:    | 05/01/25             | Data File:  | 504506-03 x5.153           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 360 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port1-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25             | Lab ID:     | 504506-04 x5               |
| Date Analyzed:    | 05/01/25             | Data File:  | 504506-04 x5.154           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 340 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZV1-EFF-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25         | Lab ID:     | 504506-05 x5               |
| Date Analyzed:    | 05/01/25         | Data File:  | 504506-05 x5.155           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 3.2 |
|---------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZV1-Port3-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-06 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-06 x5.156           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 9.1 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZV1-Port2-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-07 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-07 x5.157           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 57 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZV1-Port1-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-08 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-08 x5.158           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 130 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-EFF-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25         | Lab ID:     | 504506-09 x5               |
| Date Analyzed:    | 05/01/25         | Data File:  | 504506-09 x5.162           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | <1 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port3-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-10 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-10 x5.163           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 6.0 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port2-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-11 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-11 x5.168           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 7.7 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port1-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-12 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-12 x5.169           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 24 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25        | Lab ID:     | 504506-13 x5               |
| Date Analyzed:    | 05/01/25        | Data File:  | 504506-13 x5.170           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 670 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25       | Lab ID:     | I5-370 mb                  |
| Date Analyzed:    | 05/01/25       | Data File:  | I5-370 mb.115              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
|---------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-01 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-01 x5.171           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 280 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port3-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25             | Lab ID:     | 504506-02 x5               |
| Date Analyzed:    | 05/01/25             | Data File:  | 504506-02 x5.172           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 340 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port2-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25             | Lab ID:     | 504506-03 x5               |
| Date Analyzed:    | 05/01/25             | Data File:  | 504506-03 x5.173           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port1-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25             | Lab ID:     | 504506-04 x5               |
| Date Analyzed:    | 05/01/25             | Data File:  | 504506-04 x5.174           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 390 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZV1-EFF-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25         | Lab ID:     | 504506-05 x5               |
| Date Analyzed:    | 05/01/25         | Data File:  | 504506-05 x5.175           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 26 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZV1-Port3-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-06 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-06 x5.176           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 50 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZV1-Port2-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-07 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-07 x5.177           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 63 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZV1-Port1-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-08 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-08 x5.180           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 140 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-EFF-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25         | Lab ID:     | 504506-09 x5               |
| Date Analyzed:    | 05/01/25         | Data File:  | 504506-09 x5.181           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.8 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port3-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-10 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-10 x5.182           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 7.1 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port2-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-11 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-11 x5.183           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 24 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port1-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25           | Lab ID:     | 504506-12 x5               |
| Date Analyzed:    | 05/01/25           | Data File:  | 504506-12 x5.184           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 64 |
|---------|----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-043025 | Client:     | Aspect Consulting          |
| Date Received:    | 04/30/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25        | Lab ID:     | 504506-13 x5               |
| Date Analyzed:    | 05/01/25        | Data File:  | 504506-13 x5.185           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 690 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/01/25       | Lab ID:     | I5-369 mb                  |
| Date Analyzed:    | 05/01/25       | Data File:  | I5-369 mb.112              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
|---------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 04/30/25

Project: Glacier Northwest AS230067, F&BI 504506

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 94                         | 94                          | 80-120                 | 0                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 04/30/25

Project: Glacier Northwest AS230067, F&BI 504506

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 95                         | 96                          | 80-120                 | 1                 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Andrew Yonkotski  
Report To Delia Massey, Marc Chalfant

504506

SAMPLE CHAIN OF CUSTODY

04/30/25

Page # 1 of 2

Company Aspect Consulting  
Address 7102nd Ave, Suite 550  
City, State, ZIP Seattle, WA 98104  
Phone 206-413-5407 Email [Guaresyncr.com](mailto:Guaresyncr.com)

SAMPLERS (signature)  
PROJECT NAME

Glacier Northwest

PO # AS230067

REMARKS  
Field Filtered T/D Metals  
Project specific RLS? - Yes / No

INVOICE TO  
Please Invoice  
through Coupa

TURNAROUND TIME  
Standard turnaround  
RUSH 24-hr  
Rush charges authorized by:  
SAMPLE DISPOSAL  
Archive samples  
Other  
Default: Dispose after 30 days

| Sample ID            | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED |          |               |            |               |               |               |                  |                      |                                              | Notes |
|----------------------|--------|--------------|--------------|-------------|-----------|--------------------|----------|---------------|------------|---------------|---------------|---------------|------------------|----------------------|----------------------------------------------|-------|
|                      |        |              |              |             |           | NWTPH-Dx           | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | Total As (6020B) | Dissolved As (6020B) |                                              |       |
| Control-EFF-043025   | 01 A-D | 4/30/25      | 0920         | W           | 4         |                    |          |               |            |               |               |               | X                | X                    | RUSH TAT FOR ALL SAMPLES FOR MARKED ANALYSES |       |
| Control-PORT3-043025 | 02 A-B |              | 1125         |             | 2         |                    |          |               |            |               |               |               |                  |                      |                                              |       |
| Control-PORT2-043025 | 03     |              | 1200         |             | 2         |                    |          |               |            |               |               |               |                  |                      |                                              |       |
| Control-PORT1-043025 | 04 ↓   |              | 1245         |             | 2         |                    |          |               |            |               |               |               |                  |                      |                                              |       |
| 20ZV1-EFF-043025     | 05 A-D |              | 0925         |             | 4         |                    |          |               |            |               |               |               |                  |                      |                                              |       |
| 20ZV1-PORT3-043025   | 06 A-B |              | 1130         |             | 2         |                    |          |               |            |               |               |               |                  |                      |                                              |       |
| 20ZV1-PORT2-043025   | 07     |              | 1205         |             | 2         |                    |          |               |            |               |               |               |                  |                      |                                              |       |
| 20ZV1-PORT1-043025   | 08 ↓   |              | 1250         |             | 2         |                    |          |               |            |               |               |               |                  |                      |                                              |       |
| 50ZV1-EFF-043025     | 09 A-E |              | 0930         |             | 5         |                    |          |               |            |               |               |               |                  |                      |                                              |       |
| 50ZV1-PORT3-043025   | 10 A-B | ✓            | 1135         | ↓           | 2         |                    |          |               |            |               |               |               | ↓                | ↓                    | ↓                                            |       |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman & Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

[office@friedmanandbruya.com](mailto:office@friedmanandbruya.com)

Relinquished by: *Emily Pusen*

Emily Pusen

ASPECT

4/30/25 16:02

Received by: *Must Truay*

Must Truay

F&B

4/30/25 16:02

Received by:

5/23

Page # 2 of 2

☐ Standard turnaround

~~X~~ RUSH 24-hr

SAMPLI E DISPOSAL

☐ Archive samples☐ Other

**Default: Dispose after 30 days**

Phone 206-413-5407 Email Deva-Massey@GreasyNtr.com

through Coupa

ANALYSES REQUESTED

Total AS  
(16020B)  
Disallowed AS  
(6020B)

RUSH TAT FOR  
ALL SHARES FOR  
MARKED

[illegible]

TIME

4/30/25 1602

4/30/75 16:07

Received by:

**Friedman & Bruya, Inc.**  
5500 4th Ave S.  
Seattle WA 98108  
(206) 285-8282  
office@friedmanandbruya.com

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 504506 CLIENT ASPECT INITIALS/ MT  
DATE: 4/30/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature \_\_\_\_\_ °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/ (NP)  
\*or other representative documents, letters, and/or shipping memos Date: 4/05/01

Number of days samples have been sitting prior to receipt at laboratory 4 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |       |                                           |
|--------------------|--------------------------------------------------------------------------|-------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | _____ |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold | _____ |                                           |

Other comments (use a separate page if needed)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 6, 2025

Andrew Yonkofski, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

PRINTINGHERE

Included are the results from the testing of material submitted on May 1, 2025 from the Glacier Northwest AS230067, F&BI 505029 project. There are 32 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Delia Massey, Marc Chalfant  
ASP0506R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on May 1, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 505029 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 505029 -01           | Control-EFF-050125       |
| 505029 -02           | Control-Port3-050125     |
| 505029 -03           | Control-Port2-050125     |
| 505029 -04           | Control-Port1-050125     |
| 505029 -05           | 20ZVI-EFF-050125         |
| 505029 -06           | 20ZVI-Port3-050125       |
| 505029 -07           | 20ZVI-Port2-050125       |
| 505029 -08           | 20ZVI-Port1-050125       |
| 505029 -09           | 50ZV1-Port3-050125       |
| 505029 -10           | 50ZV1-EFF-050125         |
| 505029 -11           | 50ZV1-Port2-050125       |
| 505029 -12           | 50ZV1-Port1-050125       |
| 505029 -13           | Influent-050125          |

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-01 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-01 x5.091           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 350 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505029-02 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505029-02 x5.092           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 390 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505029-03 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505029-03 x5.093           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 370 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505029-04 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505029-04 x5.094           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 340 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505029-05 x5               |
| Date Analyzed:    | 05/02/25         | Data File:  | 505029-05 x5.156           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 3.9 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-06 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-06 x5.099           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 5.1 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-07 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-07 x5.157           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 44 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-08 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-08 x5.101           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 92 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-09 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-09 x5.158           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.2 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505029-10 x5               |
| Date Analyzed:    | 05/02/25         | Data File:  | 505029-10 x5.103           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 3.1 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-11 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-11 x5.104           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 13 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-12 x5               |
| Date Analyzed:    | 05/05/25           | Data File:  | 505029-12 x5.101           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 40 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25        | Lab ID:     | 505029-13 x5               |
| Date Analyzed:    | 05/02/25        | Data File:  | 505029-13 x5.160           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 660 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25       | Lab ID:     | I5-377 mb                  |
| Date Analyzed:    | 05/02/25       | Data File:  | I5-377 mb.045              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
|---------|------|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-01 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-01 x5.075           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 340 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505029-02 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505029-02 x5.076           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 390 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505029-03 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505029-03 x5.077           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 410 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505029-04 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505029-04 x5.078           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 380 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505029-05 x5               |
| Date Analyzed:    | 05/02/25         | Data File:  | 505029-05 x5.079           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 15 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-06 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-06 x5.080           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 26 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-07 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-07 x5.081           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 47 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-08 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-08 x5.085           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 95 |
|---------|----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-09 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-09 x5.086           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.8 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505029-10 x5               |
| Date Analyzed:    | 05/02/25         | Data File:  | 505029-10 x5.087           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 5.6 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-11 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-11 x5.088           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 15 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505029-12 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505029-12 x5.089           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 35 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25        | Lab ID:     | 505029-13 x5               |
| Date Analyzed:    | 05/02/25        | Data File:  | 505029-13 x5.090           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 690 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25       | Lab ID:     | I5-376 mb                  |
| Date Analyzed:    | 05/02/25       | Data File:  | I5-376 mb.042              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
|---------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 05/01/25

Project: Glacier Northwest AS230067, F&BI 505029

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 90                         | 92                          | 80-120                 | 2                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 05/01/25

Project: Glacier Northwest AS230067, F&BI 505029

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 92                         | 92                          | 80-120                 | 0                 |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

50502A

Andrew VonKotski

## SAMPLE CHAIN OF CUSTODY

05/01/25

K3

Page # 1 of 2

Report To Debra Massey ; Marc ChaltantCompany Aspect ConsultingAddress 7100 2nd Ave, Suite 550City, State, ZIP Seattle, WA 98104Phone 206-413-5407 Email Debra.massey@aspectinc.com

|                                                 |  |                                                   |
|-------------------------------------------------|--|---------------------------------------------------|
| SAMPLES (signature)<br><u>Emily Ruess</u>       |  | PO #<br><u>A5230067</u>                           |
| PROJECT NAME<br><u>Glacier Northwest</u>        |  | INVOICE TO<br><u>Please Invoice through Coupa</u> |
| REMARKS<br><u>Field Filtered for T/D Metals</u> |  |                                                   |
| Project Specific RIs - Yes / No                 |  |                                                   |

|                                                                                              |                                                                      |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| TURNAROUND TIME<br>Standard Turnaround<br><u>X</u> RUSH 24-hr<br>Rush charges authorized by: | SAMPLE DISPOSAL<br>Dispose after 30 days<br>Archive Samples<br>Other |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------|

| Sample ID            | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED |          |               |               |               |               |                  | Notes |
|----------------------|--------|--------------|--------------|-------------|-----------|--------------------|----------|---------------|---------------|---------------|---------------|------------------|-------|
|                      |        |              |              |             |           | NWTPH-Dx           | NWTPH-Gx | BTEX EPA 8021 | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | Total As (6020B) |       |
| Control-FFF-050125   | 01 A-D | 5/1/25       | 0930         | W           | 4         |                    |          |               |               |               |               | X                | X     |
| Control-PORT3-050125 | 02 A-B |              | 1050         |             | 2         |                    |          |               |               |               |               | X                | X     |
| Control-PORT2-050125 | 03     |              | 1145         |             | 2         |                    |          |               |               |               |               | X                | X     |
| Control-PORT1-050125 | 04     |              | 1225         |             | 2         |                    |          |               |               |               |               | X                | X     |
| 202VI-FFF-050125     | 05 A-D |              | 0935         |             | 4         |                    |          |               |               |               |               | X                | X     |
| 202VI-PORT3-050125   | 06 A-B |              | 1055         |             | 2         |                    |          |               |               |               |               | X                | X     |
| 202VI-PORT2-050125   | 07     |              | 1150         |             | 2         |                    |          |               |               |               |               | X                | X     |
| 202VI-PORT1-050125   | 08     |              | 1230         |             | 2         |                    |          |               |               |               |               | X                | X     |
| 502VI-PORT3-050125   | 09     |              | 1100         |             | 2         |                    |          |               |               |               |               | X                | X     |
| 502VI-FFF-050125     | 10 A-D |              | 0940         |             | 4         |                    |          |               |               |               |               | X                | X     |

Friedman &amp; Bruya, Inc.

5500 4th Avenue S

Seattle, WA 98108

Ph. (206) 285-8282

FORMS\COC\COG.DOC

| SIGNATURE                           | PRINT NAME   | COMPANY                                  | DATE     | TIME |
|-------------------------------------|--------------|------------------------------------------|----------|------|
| Relinquished by: <u>Emily Ruess</u> | EMILY RUSSEN | ASPECT                                   | 5/1/25   | 1733 |
| Received by: <u>Joe Matthews</u>    | JOE MATTHEWS | for                                      | 05/01/25 | 1733 |
| Relinquished by:                    |              |                                          |          |      |
| Received by:                        |              | Samples received at 2 <sup>nd</sup> of C |          |      |



# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 50502A CLIENT ASP INITIALS/ 05/01/25 SM  
DATE: \_\_\_\_\_

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature \_\_\_\_\_ °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/ 5/2  
\*or other representative documents, letters, and/or shipping memos Date: \_\_\_\_\_

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☒ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

Sample ID's NP ☒ Yes ☐ No ☐ Not on COC/label  
Date Sampled ☒ Yes ☐ No ☐ Not on COC/label  
Time Sampled ☒ Yes ☐ No ☐ Not on COC/label  
# of Containers ☒ Yes ☐ No  
Relinquished ☒ Yes ☐ No  
Requested analysis ☒ Yes ☐ On Hold

Other comments (use a separate page if needed)

SAMPLES IDENTICAL CONTAINERS TO THOSE IN VOL 505030. 05/01 SM  
502V1 - Port 1 @ 12:35 Field Filter container labeled Port 2 ID based on time

Air Samples: Were any additional canisters/tubes received? ☐ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\* \_\_\_\_\_ Number of unused TO17 tubes \_\_\_\_\_

\*\*Fill out Green manifolds billing sheet

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 13, 2025

Andrew Yonkofski, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on May 1, 2025 from the Glacier Northwest AS230067, F&BI 505030 project. There are 41 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Delia Massey, Marc Chalfant  
ASP0513R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on May 1, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 505030 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 505030 -01           | Control-EFF-050125       |
| 505030 -02           | Control-Port3-050125     |
| 505030 -03           | Control-Port2-050125     |
| 505030 -04           | Control-Port1-050125     |
| 505030 -05           | 20ZVI-EFF-050125         |
| 505030 -06           | 20ZVI-Port3-050125       |
| 505030 -07           | 20ZVI-Port2-050125       |
| 505030 -08           | 20ZVI-Port1-050125       |
| 505030 -09           | 50ZV1-EFF-050125         |
| 505030 -10           | 50ZV1-Port3-050125       |
| 505030 -11           | 50ZV1-Port2-050125       |
| 505030 -12           | 50ZV1-Port1-050125       |
| 505030 -13           | Influent-050125          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, F, Br) were sent to Alliance Technical Group for testing. The report is enclosed.

All quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-01 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-01 x5.075           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 2.9 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-01 x10              |
| Date Analyzed:    | 05/12/25           | Data File:  | 505030-01 x10.084          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |       |
|------|-------|
| Iron | 1,200 |
|------|-------|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-01 x100             |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-01 x100.244         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 690 |
|-----------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505030-02 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505030-02 x5.076           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 4.1 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505030-03 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505030-03 x5.077           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505030-04 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505030-04 x5.078           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505030-05 x5               |
| Date Analyzed:    | 05/02/25         | Data File:  | 505030-05 x5.079           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |    |
|--------|----|
| Copper | 12 |
|--------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505030-05 x1000            |
| Date Analyzed:    | 05/12/25         | Data File:  | 505030-05 x1000.095        |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |         |
|-----------|---------|
| Iron      | 150,000 |
| Manganese | 1,000   |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-06 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-06 x5.080           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |    |
|--------|----|
| Copper | 13 |
|--------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-07 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-07 x5.081           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |    |
|--------|----|
| Copper | 10 |
|--------|----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-08 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-08 x5.085           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |    |
|--------|----|
| Copper | 11 |
|--------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505030-09 x5               |
| Date Analyzed:    | 05/02/25         | Data File:  | 505030-09 x5.086           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 3.1 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505030-09 x500             |
| Date Analyzed:    | 05/02/25         | Data File:  | 505030-09 x500.254         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |         |
|-----------|---------|
| Iron      | 110,000 |
| Manganese | 810     |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-10 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-10 x5.087           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 5.5 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-11 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-11 x5.088           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-12 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-12 x5.089           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25        | Lab ID:     | 505030-13 x5               |
| Date Analyzed:    | 05/02/25        | Data File:  | 505030-13 x5.090           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25        | Lab ID:     | 505030-13 x100             |
| Date Analyzed:    | 05/02/25        | Data File:  | 505030-13 x100.256         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 15,000 |
| Manganese | 170    |



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25       | Lab ID:     | I5-376 mb                  |
| Date Analyzed:    | 05/02/25       | Data File:  | I5-376 mb.042              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte:  | Concentration<br>ug/L (ppb) |
|-----------|-----------------------------|
| Copper    | <0.5                        |
| Iron      | <50                         |
| Manganese | <1                          |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-01 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-01 x5.155           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 2.6 |
| Iron   | 710 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-01 x100             |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-01 x100.231         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 650 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505030-02 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505030-02 x5.092           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505030-03 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505030-03 x5.093           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                      |             |                            |
|-------------------|----------------------|-------------|----------------------------|
| Client Sample ID: | Control-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25             | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25             | Lab ID:     | 505030-04 x5               |
| Date Analyzed:    | 05/02/25             | Data File:  | 505030-04 x5.094           |
| Matrix:           | Water                | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)           | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505030-05 x5               |
| Date Analyzed:    | 05/02/25         | Data File:  | 505030-05 x5.098           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505030-05 x500             |
| Date Analyzed:    | 05/02/25         | Data File:  | 505030-05 x500.239         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 84,000 |
| Manganese | 680    |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-06 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-06 x5.099           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-07 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-07 x5.100           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-08 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-08 x5.101           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505030-09 x5               |
| Date Analyzed:    | 05/02/25         | Data File:  | 505030-09 x5.102           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-EFF-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25         | Lab ID:     | 505030-09 x500             |
| Date Analyzed:    | 05/02/25         | Data File:  | 505030-09 x500.241         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 82,000 |
| Manganese | 630    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port3-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-10 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-10 x5.103           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 4.3 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port2-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-11 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-11 x5.104           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | 50ZV1-Port1-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25           | Lab ID:     | 505030-12 x5               |
| Date Analyzed:    | 05/02/25           | Data File:  | 505030-12 x5.105           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25        | Lab ID:     | 505030-13 x5               |
| Date Analyzed:    | 05/02/25        | Data File:  | 505030-13 x5.106           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 4.8 |
|--------|-----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | Influent-050125 | Client:     | Aspect Consulting          |
| Date Received:    | 05/01/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25        | Lab ID:     | 505030-13 x100             |
| Date Analyzed:    | 05/02/25        | Data File:  | 505030-13 x100.243         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 14,000 |
| Manganese | 160    |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/02/25       | Lab ID:     | I5-377 mb                  |
| Date Analyzed:    | 05/02/25       | Data File:  | I5-377 mb.045              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte:  | Concentration<br>ug/L (ppb) |
|-----------|-----------------------------|
| Copper    | <0.5                        |
| Iron      | <50                         |
| Manganese | <1                          |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/13/25

Date Received: 05/01/25

Project: Glacier Northwest AS230067, F&BI 505030

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Copper    | ug/L (ppb)         | 20             | 96                         | 96                          | 80-120                 | 0                 |
| Iron      | ug/L (ppb)         | 100            | 92                         | 92                          | 80-120                 | 0                 |
| Manganese | ug/L (ppb)         | 20             | 95                         | 97                          | 80-120                 | 2                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/13/25

Date Received: 05/01/25

Project: Glacier Northwest AS230067, F&BI 505030

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Copper    | ug/L (ppb)         | 20             | 97                         | 98                          | 80-120                 | 1                 |
| Iron      | ug/L (ppb)         | 100            | 90                         | 93                          | 80-120                 | 3                 |
| Manganese | ug/L (ppb)         | 20             | 97                         | 98                          | 80-120                 | 1                 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

## SAMPLE CHAIN OF CUSTODY

05/01/25

K3

Andrew Von Kotski,

Report To Beia Masey, Marc ChaitantCompany Aspect ConsultingAddress 710 2nd Ave, Suite 550City, State, ZIP Seattle, WA 98104Phone 206-413-5407 Email Beia.Masey@aspect-consulting.com

SAMPLERS (signature)

Emily Ruben

PROJECT NAME

Glaiver Northwest

PO #

AS230067

REMARKS

Field Filtered for T/DMetals

INVOICE TO

Please Invoice through Coupa

Project Specific RLS - Yes / No

Page # 1 of 2

TURNAROUND TIME

☒ Standard Turnaround

RUSH

Rush charges authorized by: \_\_\_\_\_

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other \_\_\_\_\_

| Sample ID            | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED                                                          |                                                                  |                                                                          |                                                                                   |                                                                    |                                                                        |                                                                            |                                                                                                              |                                                                                                                  |                                                                                                                                        | Notes |
|----------------------|--------|--------------|--------------|-------------|-----------|-----------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------|
| Control-EFF-050125   | 01 A-D | 5/1/25       | 0930         | W           | 4         | <input checked="" type="checkbox"/> Total Dissolved Solids (2540B) NWTPH-6x | <input checked="" type="checkbox"/> Salinity (Sm 2540B) NWTPH-6x | <input checked="" type="checkbox"/> Alkalinity (EPA 310.1) BTEX EPA 8021 | <input checked="" type="checkbox"/> Total Organic Carbon (EPA 8260) VOCs EPA 8260 | <input checked="" type="checkbox"/> Total Cu (6020B) PAHs EPA 8270 | <input checked="" type="checkbox"/> Dissolved Cu (6020B) PCBs EPA 8082 | <input checked="" type="checkbox"/> Br, Cl, F, SO <sub>4</sub> (EPA 300.0) | <input checked="" type="checkbox"/> Total Metals (Cu, Cr, Fe, Mn, Mg, K, Na, Ni, Pb, Se, Si, Zn) (EPA 300.0) | <input checked="" type="checkbox"/> Dissolved Metals (Cu, Cr, Fe, Mn, Mg, K, Na, Ni, Pb, Se, Si, Zn) (EPA 300.0) | <input checked="" type="checkbox"/> NO <sub>3</sub> as N, NO <sub>2</sub> as N, NH <sub>4</sub> as N, PO <sub>4</sub> as P (EPA 300.0) |       |
| Control-PORT3-050125 | 02 A-B |              | 1050         |             | 2         |                                                                             |                                                                  |                                                                          |                                                                                   | <input checked="" type="checkbox"/>                                |                                                                        |                                                                            |                                                                                                              |                                                                                                                  |                                                                                                                                        |       |
| Control-PORT2-050125 | 03     |              | 1145         |             | 2         |                                                                             |                                                                  |                                                                          |                                                                                   | <input checked="" type="checkbox"/>                                |                                                                        |                                                                            |                                                                                                              |                                                                                                                  |                                                                                                                                        |       |
| Control-PORT1-050125 | 04     |              | 1225         |             | 2         |                                                                             |                                                                  |                                                                          |                                                                                   | <input checked="" type="checkbox"/>                                |                                                                        |                                                                            |                                                                                                              |                                                                                                                  |                                                                                                                                        |       |
| 20ZVI-EFF-050125     | 05 A-D |              | 0935         |             | 4         | <input checked="" type="checkbox"/>                                         | <input checked="" type="checkbox"/>                              | <input checked="" type="checkbox"/>                                      | <input checked="" type="checkbox"/>                                               |                                                                    | <input checked="" type="checkbox"/>                                    | <input checked="" type="checkbox"/>                                        | <input checked="" type="checkbox"/>                                                                          | <input checked="" type="checkbox"/>                                                                              |                                                                                                                                        |       |
| 20ZVI-PORT3-050125   | 06 A-B |              | 1055         |             | 2         |                                                                             |                                                                  |                                                                          |                                                                                   | <input checked="" type="checkbox"/>                                |                                                                        |                                                                            |                                                                                                              |                                                                                                                  |                                                                                                                                        |       |
| 20ZVI-PORT2-050125   | 07     |              | 1150         |             | 2         |                                                                             |                                                                  |                                                                          |                                                                                   | <input checked="" type="checkbox"/>                                |                                                                        |                                                                            |                                                                                                              |                                                                                                                  |                                                                                                                                        |       |
| 20ZVI-PORT1-050125   | 08     |              | 1230         |             | 2         |                                                                             |                                                                  |                                                                          |                                                                                   | <input checked="" type="checkbox"/>                                |                                                                        |                                                                            |                                                                                                              |                                                                                                                  |                                                                                                                                        |       |
| 50ZVI-EFF-050125     | 09 A-D |              | 1100         |             | 4         | <input checked="" type="checkbox"/>                                         | <input checked="" type="checkbox"/>                              | <input checked="" type="checkbox"/>                                      | <input checked="" type="checkbox"/>                                               |                                                                    | <input checked="" type="checkbox"/>                                    | <input checked="" type="checkbox"/>                                        | <input checked="" type="checkbox"/>                                                                          | <input checked="" type="checkbox"/>                                                                              |                                                                                                                                        |       |
| 50ZVI-PORT3-050125   | 10 A-B |              | 0940         |             | 2         |                                                                             |                                                                  |                                                                          |                                                                                   | <input checked="" type="checkbox"/>                                |                                                                        |                                                                            |                                                                                                              |                                                                                                                  |                                                                                                                                        |       |

Friedman &amp; Bruya, Inc.

5500 4th Avenue S

Seattle, WA 98108

Ph. (206) 285-8282

FORMS\COCC\COCCDOC

| SIGNATURE        |                    | PRINT NAME |                    | COMPANY |                            | DATE            | TIME         |
|------------------|--------------------|------------|--------------------|---------|----------------------------|-----------------|--------------|
| Relinquished by: | <u>Emily Ruben</u> |            | <u>Emily RUBEN</u> |         | <u>ASPECT</u>              | <u>5/1/25</u>   | <u>17:33</u> |
| Received by:     |                    |            | <u>JOE KOTAKIS</u> |         | <u>PER</u>                 | <u>05/01/25</u> | <u>17:33</u> |
| Relinquished by: |                    |            |                    |         | <u>Samples received at</u> | <u>2</u>        | <u>00</u>    |
| Received by:     |                    |            |                    |         |                            |                 |              |

Andrew Vantroski

05/01/20 K3

22

Company Aspect Consulting

Address 710 2nd Ave, Suite 850

City, State, ZIP Seattle, WA 98104

Phone 206-413-5407 Email Deia.

|                                             |                                                |
|---------------------------------------------|------------------------------------------------|
| SAMPLERS (signature)<br><i>Enith Ruggen</i> |                                                |
| PROJECTNAME<br>Glacier Northwest            | PO #<br>AS230001                               |
| REMARKS<br>Field Filtered for TID matrix    | INVOICE TO<br>Please Invoice<br>through our pa |
| Project Specific RIs - Yes / No             |                                                |

TURNAROUND TIME  
 Page # 2 of 2  
☒ Standard Turnaround  
 RUSH \_\_\_\_\_  
 Rush charges authorized by: \_\_\_\_\_

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**SAMPLE DISPOSAL**  
 Dispose after 30 days  
 Archive Samples  
 Other

[illegible]

*Friedman & Bruya, Inc.*

5500 4th Avenue S

Seattle, WA 98108

Ph. (206) 285-8282

FORMS\COC\COC.DOC

| SIGNATURE                            | PRINT NAME  | COMPANY             | DATE     | TIME  |
|--------------------------------------|-------------|---------------------|----------|-------|
| Relinquished by: <i>Emily Ruseen</i> | EMILY RUSEN | ASPECT              | 5/1/25   | 17:33 |
| Received by: <i>[Signature]</i>      | JOE MOWATTO | FBT                 | 09/01/25 | 1733  |
| Relinquished by:                     |             |                     |          |       |
| Received by:                         |             | Samples received at | 2 °C     |       |



# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 505030 CLIENT ASP INITIALS/DATE: 05/01/25 DM

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/Date: 5/2  
\*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 4 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☒ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label? (explain "no" answer below)

|                    |                                                                          |                                                                               |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Sample ID's        | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      | <input type="checkbox"/> Not on COC <input checked="" type="checkbox"/> label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC <input type="checkbox"/> label            |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC <input type="checkbox"/> label            |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                                                               |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                                                               |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                                                               |

Other comments (use a separate page if needed)

SAMPLES IDENTICAL CONTAINERS TO THOSE IN AL 505029. 05/01 DM  
502V1-Port @ 12:35 Field Filtered container labeled Port 2 ID based on Time

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\*            Number of unused TO17 tubes           

\*\*Fill out Green manifolds billing sheet



3600 Fremont Ave N

Seattle, WA 98103

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F: (206) 352-7178

info@fremontanalytical.com

**Friedman & Bruya**

Michael Erdahl

5500 4th Ave S

Seattle, WA 98108

**RE: 505030, F-213**

**Work Order Number: 2505035**

May 09, 2025

**Attention Michael Erdahl:**

Alliance Technical Group, LLC - Seattle received 4 sample(s) on 5/2/2025 for the analyses presented in the following report.

***Dissolved Metals by EPA 6020B***

***Ion Chromatography by EPA 300.0***

***Salinity by SM 2520B***

***Total Alkalinity by EPA 310.2***

***Total Dissolved Solids by SM 2540C***

***Total Metals by EPA 6020B***

***Total Organic Carbon by SM 5310C***

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

A handwritten signature in black ink, appearing to be "JR" or "JR", written in a cursive style.

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910



Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

Lyann Rivera  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing*  
*ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing*  
*Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*



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Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

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**CLIENT:** Friedman & Bruya  
**Project:** 505030  
**Work Order:** 2505035

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## Work Order Sample Summary

| Lab Sample ID | Client Sample ID   | Date/Time Collected | Date/Time Received  |
|---------------|--------------------|---------------------|---------------------|
| 2505035-001   | Control-EFF-050125 | 05/01/2025 9:30 AM  | 05/02/2025 10:50 AM |
| 2505035-002   | 20ZVI-EFF-050125   | 05/01/2025 9:35 AM  | 05/02/2025 10:50 AM |
| 2505035-003   | 50ZVI-EFF-050125   | 05/01/2025 11:00 AM | 05/02/2025 10:50 AM |
| 2505035-004   | INFLUENT-050125    | 05/01/2025 12:45 PM | 05/02/2025 10:50 AM |

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Friedman & Bruya

**Project:** 505030

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate

**CLIENT:** Friedman & Bruya  
**Project:** 505030

**Lab ID:** 2505035-001

**Collection Date:** 5/1/2025 9:30:00 AM

**Client Sample ID:** Control-EFF-050125

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47608

Analyst: OP

|                        |       |       |   |      |   |                     |
|------------------------|-------|-------|---|------|---|---------------------|
| Fluoride               | 0.167 | 0.100 |   | mg/L | 1 | 5/2/2025 9:13:00 PM |
| Chloride               | 4.31  | 0.200 |   | mg/L | 1 | 5/2/2025 9:13:00 PM |
| Nitrite (as N)         | ND    | 0.200 |   | mg/L | 1 | 5/2/2025 9:13:00 PM |
| Bromide                | ND    | 0.600 |   | mg/L | 1 | 5/2/2025 9:13:00 PM |
| Nitrate (as N)         | ND    | 0.200 |   | mg/L | 1 | 5/2/2025 9:13:00 PM |
| Ortho-Phosphate (as P) | 0.440 | 0.400 | Q | mg/L | 1 | 5/2/2025 9:13:00 PM |
| Sulfate                | 4.48  | 1.00  |   | mg/L | 1 | 5/2/2025 9:13:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (85%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47634

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 65,000 | 60.0 |  | µg/L | 1 | 5/6/2025 5:59:00 PM |
| Magnesium | 5,390  | 50.0 |  | µg/L | 1 | 5/6/2025 5:59:00 PM |
| Potassium | 4,300  | 50.0 |  | µg/L | 1 | 5/6/2025 5:59:00 PM |
| Sodium    | 14,500 | 100  |  | µg/L | 1 | 5/6/2025 5:59:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47611

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 59,700 | 250  |  | µg/L | 1 | 5/5/2025 6:45:00 PM |
| Magnesium | 5,450  | 50.0 |  | µg/L | 1 | 5/5/2025 6:45:00 PM |
| Potassium | 4,030  | 50.0 |  | µg/L | 1 | 5/5/2025 6:45:00 PM |
| Sodium    | 14,700 | 100  |  | µg/L | 1 | 5/5/2025 6:45:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99630

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 3.57 | 0.700 |  | mg/L | 1 | 5/8/2024 7:27:00 PM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99485

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 227 | 25.0 | D | mg/L | 10 | 5/5/2025 11:52:00 AM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99559

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/7/2025 2:44:10 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99468

Analyst: JH

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 268 | 5.00 |  | mg/L | 1 | 5/5/2025 10:56:13 AM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: 2505035  
Date Reported: 5/9/2025

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**CLIENT:** Friedman & Bruya  
**Project:** 505030

---



**CLIENT:** Friedman & Bruya  
**Project:** 505030

**Lab ID:** 2505035-002

**Collection Date:** 5/1/2025 9:35:00 AM

**Client Sample ID:** 20ZVI-EFF-050125

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47608

Analyst: OP

|                        |       |       |   |      |   |                      |
|------------------------|-------|-------|---|------|---|----------------------|
| Fluoride               | 0.155 | 0.100 |   | mg/L | 1 | 5/2/2025 10:45:00 PM |
| Chloride               | 4.38  | 0.200 |   | mg/L | 1 | 5/2/2025 10:45:00 PM |
| Nitrite (as N)         | ND    | 0.200 |   | mg/L | 1 | 5/2/2025 10:45:00 PM |
| Bromide                | ND    | 0.600 |   | mg/L | 1 | 5/2/2025 10:45:00 PM |
| Nitrate (as N)         | ND    | 0.200 |   | mg/L | 1 | 5/2/2025 10:45:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | Q | mg/L | 1 | 5/2/2025 10:45:00 PM |
| Sulfate                | 4.98  | 1.00  |   | mg/L | 1 | 5/2/2025 10:45:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (85%, nominal 90-110). Result may be low-biased.

**Dissolved Metals by EPA 6020B**

Batch ID: 47634

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 61,200 | 60.0 |  | µg/L | 1 | 5/6/2025 6:02:00 PM |
| Magnesium | 4,990  | 50.0 |  | µg/L | 1 | 5/6/2025 6:02:00 PM |
| Potassium | 3,990  | 50.0 |  | µg/L | 1 | 5/6/2025 6:02:00 PM |
| Sodium    | 14,800 | 100  |  | µg/L | 1 | 5/6/2025 6:02:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47611

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 57,000 | 250  |  | µg/L | 1 | 5/5/2025 6:48:00 PM |
| Magnesium | 5,170  | 50.0 |  | µg/L | 1 | 5/5/2025 6:48:00 PM |
| Potassium | 3,750  | 50.0 |  | µg/L | 1 | 5/5/2025 6:48:00 PM |
| Sodium    | 14,800 | 100  |  | µg/L | 1 | 5/5/2025 6:48:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99630

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 3.53 | 0.700 |  | mg/L | 1 | 5/8/2024 7:48:00 PM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99485

Analyst: NR

|                                           |     |      |   |      |    |                      |
|-------------------------------------------|-----|------|---|------|----|----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 221 | 25.0 | D | mg/L | 10 | 5/5/2025 11:54:00 AM |
|-------------------------------------------|-----|------|---|------|----|----------------------|

**Salinity by SM 2520B**

Batch ID: R99559

Analyst: OP

|          |        |          |  |   |   |                     |
|----------|--------|----------|--|---|---|---------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/7/2025 2:44:10 PM |
|----------|--------|----------|--|---|---|---------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99468

Analyst: JH

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 234 | 5.00 |  | mg/L | 1 | 5/5/2025 10:56:13 AM |
|------------------------|-----|------|--|------|---|----------------------|



## Analytical Report

Work Order: 2505035  
Date Reported: 5/9/2025

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**CLIENT:** Friedman & Bruya  
**Project:** 505030

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**CLIENT:** Friedman & Bruya  
**Project:** 505030

**Lab ID:** 2505035-003

**Collection Date:** 5/1/2025 11:00:00 AM

**Client Sample ID:** 50ZVI-EFF-050125

**Matrix:** Water

| Analyses                                      | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|-----------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Ion Chromatography by EPA 300.0</u></b> |        |       |      | Batch ID: 47608 |    | Analyst: OP          |
| Fluoride                                      | 0.145  | 0.100 |      | mg/L            | 1  | 5/2/2025 11:08:00 PM |
| Chloride                                      | 4.54   | 0.200 |      | mg/L            | 1  | 5/2/2025 11:08:00 PM |
| Nitrite (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 5/2/2025 11:08:00 PM |
| Bromide                                       | ND     | 0.600 |      | mg/L            | 1  | 5/2/2025 11:08:00 PM |
| Nitrate (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 5/2/2025 11:08:00 PM |
| Ortho-Phosphate (as P)                        | ND     | 0.400 | Q    | mg/L            | 1  | 5/2/2025 11:08:00 PM |
| Sulfate                                       | 3.83   | 1.00  |      | mg/L            | 1  | 5/2/2025 11:08:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (85%, nominal 90-110). Result may be low-biased.

|                                             |        |      |  |                 |   |                     |
|---------------------------------------------|--------|------|--|-----------------|---|---------------------|
| <b><u>Dissolved Metals by EPA 6020B</u></b> |        |      |  | Batch ID: 47634 |   | Analyst: ME         |
| Calcium                                     | 63,200 | 60.0 |  | µg/L            | 1 | 5/6/2025 6:05:00 PM |
| Magnesium                                   | 5,010  | 50.0 |  | µg/L            | 1 | 5/6/2025 6:05:00 PM |
| Potassium                                   | 4,100  | 50.0 |  | µg/L            | 1 | 5/6/2025 6:05:00 PM |
| Sodium                                      | 15,500 | 100  |  | µg/L            | 1 | 5/6/2025 6:05:00 PM |

|                                         |        |      |  |                 |   |                     |
|-----------------------------------------|--------|------|--|-----------------|---|---------------------|
| <b><u>Total Metals by EPA 6020B</u></b> |        |      |  | Batch ID: 47611 |   | Analyst: ME         |
| Calcium                                 | 58,400 | 250  |  | µg/L            | 1 | 5/5/2025 6:52:00 PM |
| Magnesium                               | 5,030  | 50.0 |  | µg/L            | 1 | 5/5/2025 6:52:00 PM |
| Potassium                               | 3,820  | 50.0 |  | µg/L            | 1 | 5/5/2025 6:52:00 PM |
| Sodium                                  | 15,400 | 100  |  | µg/L            | 1 | 5/5/2025 6:52:00 PM |

|                                                |      |       |  |                  |   |                     |
|------------------------------------------------|------|-------|--|------------------|---|---------------------|
| <b><u>Total Organic Carbon by SM 5310C</u></b> |      |       |  | Batch ID: R99630 |   | Analyst: SS         |
| Total Organic Carbon                           | 2.94 | 0.700 |  | mg/L             | 1 | 5/8/2024 8:30:00 PM |

|                                             |     |      |   |                  |    |                      |
|---------------------------------------------|-----|------|---|------------------|----|----------------------|
| <b><u>Total Alkalinity by EPA 310.2</u></b> |     |      |   | Batch ID: R99485 |    | Analyst: NR          |
| Alkalinity, Total (As CaCO <sub>3</sub> )   | 223 | 25.0 | D | mg/L             | 10 | 5/5/2025 11:56:00 AM |

|                                    |        |          |  |                  |   |                     |
|------------------------------------|--------|----------|--|------------------|---|---------------------|
| <b><u>Salinity by SM 2520B</u></b> |        |          |  | Batch ID: R99559 |   | Analyst: OP         |
| Salinity                           | 0.0100 | 0.000100 |  | %                | 1 | 5/7/2025 2:44:10 PM |

|                                                  |     |      |  |                  |   |                      |
|--------------------------------------------------|-----|------|--|------------------|---|----------------------|
| <b><u>Total Dissolved Solids by SM 2540C</u></b> |     |      |  | Batch ID: R99468 |   | Analyst: JH          |
| Total Dissolved Solids                           | 234 | 5.00 |  | mg/L             | 1 | 5/5/2025 10:56:13 AM |



## Analytical Report

Work Order: 2505035  
Date Reported: 5/9/2025

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**CLIENT:** Friedman & Bruya  
**Project:** 505030

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**CLIENT:** Friedman & Bruya  
**Project:** 505030

**Lab ID:** 2505035-004

**Collection Date:** 5/1/2025 12:45:00 PM

**Client Sample ID:** INFLUENT-050125

**Matrix:** Water

| Analyses                                      | Result | RL    | Qual | Units           | DF | Date Analyzed        |
|-----------------------------------------------|--------|-------|------|-----------------|----|----------------------|
| <b><u>Ion Chromatography by EPA 300.0</u></b> |        |       |      | Batch ID: 47608 |    | Analyst: OP          |
| Fluoride                                      | 0.173  | 0.100 |      | mg/L            | 1  | 5/2/2025 11:32:00 PM |
| Chloride                                      | 3.63   | 0.200 |      | mg/L            | 1  | 5/2/2025 11:32:00 PM |
| Nitrite (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 5/2/2025 11:32:00 PM |
| Bromide                                       | ND     | 0.600 |      | mg/L            | 1  | 5/2/2025 11:32:00 PM |
| Nitrate (as N)                                | ND     | 0.200 |      | mg/L            | 1  | 5/2/2025 11:32:00 PM |
| Ortho-Phosphate (as P)                        | ND     | 0.400 | Q    | mg/L            | 1  | 5/2/2025 11:32:00 PM |
| Sulfate                                       | 3.83   | 1.00  |      | mg/L            | 1  | 5/2/2025 11:32:00 PM |

**NOTES:**

Q - Associated calibration verification is below acceptance criteria (85%, nominal 90-110). Result may be low-biased.

|                                             |        |      |  |                 |   |                     |
|---------------------------------------------|--------|------|--|-----------------|---|---------------------|
| <b><u>Dissolved Metals by EPA 6020B</u></b> |        |      |  | Batch ID: 47634 |   | Analyst: ME         |
| Calcium                                     | 73,100 | 60.0 |  | µg/L            | 1 | 5/6/2025 6:15:00 PM |
| Magnesium                                   | 4,360  | 50.0 |  | µg/L            | 1 | 5/6/2025 6:15:00 PM |
| Potassium                                   | 3,800  | 50.0 |  | µg/L            | 1 | 5/6/2025 6:15:00 PM |
| Sodium                                      | 12,600 | 100  |  | µg/L            | 1 | 5/6/2025 6:15:00 PM |

|                                         |        |      |  |                 |   |                     |
|-----------------------------------------|--------|------|--|-----------------|---|---------------------|
| <b><u>Total Metals by EPA 6020B</u></b> |        |      |  | Batch ID: 47611 |   | Analyst: ME         |
| Calcium                                 | 68,900 | 250  |  | µg/L            | 1 | 5/5/2025 6:55:00 PM |
| Magnesium                               | 4,500  | 50.0 |  | µg/L            | 1 | 5/5/2025 6:55:00 PM |
| Potassium                               | 3,630  | 50.0 |  | µg/L            | 1 | 5/5/2025 6:55:00 PM |
| Sodium                                  | 13,100 | 100  |  | µg/L            | 1 | 5/5/2025 6:55:00 PM |

|                                                |      |       |  |                  |   |                     |
|------------------------------------------------|------|-------|--|------------------|---|---------------------|
| <b><u>Total Organic Carbon by SM 5310C</u></b> |      |       |  | Batch ID: R99630 |   | Analyst: SS         |
| Total Organic Carbon                           | 4.94 | 0.700 |  | mg/L             | 1 | 5/8/2024 9:20:00 PM |

|                                             |     |      |   |                  |    |                      |
|---------------------------------------------|-----|------|---|------------------|----|----------------------|
| <b><u>Total Alkalinity by EPA 310.2</u></b> |     |      |   | Batch ID: R99485 |    | Analyst: NR          |
| Alkalinity, Total (As CaCO <sub>3</sub> )   | 179 | 25.0 | D | mg/L             | 10 | 5/5/2025 12:02:00 PM |

|                                    |        |          |  |                  |   |                     |
|------------------------------------|--------|----------|--|------------------|---|---------------------|
| <b><u>Salinity by SM 2520B</u></b> |        |          |  | Batch ID: R99559 |   | Analyst: OP         |
| Salinity                           | 0.0100 | 0.000100 |  | %                | 1 | 5/7/2025 2:44:10 PM |

|                                                  |     |      |  |                  |   |                      |
|--------------------------------------------------|-----|------|--|------------------|---|----------------------|
| <b><u>Total Dissolved Solids by SM 2540C</u></b> |     |      |  | Batch ID: R99468 |   | Analyst: JH          |
| Total Dissolved Solids                           | 278 | 5.00 |  | mg/L             | 1 | 5/5/2025 10:56:13 AM |



## Analytical Report

Work Order: 2505035  
Date Reported: 5/9/2025

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**CLIENT:** Friedman & Bruya  
**Project:** 505030

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**Work Order:** 2505035  
**CLIENT:** Friedman & Bruya  
**Project:** 505030

## QC SUMMARY REPORT

### Total Alkalinity by EPA 310.2

|                              |                         |                    |           |                                |                       |          |           |             |      |          |      |  |
|------------------------------|-------------------------|--------------------|-----------|--------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>LCS-99485</b>  | SampType: <b>LCS</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>5/5/2025</b>     | RunNo: <b>99485</b>   |          |           |             |      |          |      |  |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R99485</b> |                    |           | Analysis Date: <b>5/5/2025</b> | SeqNo: <b>2072290</b> |          |           |             |      |          |      |  |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val                    | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Alkalinity, Total (As CaCO3) | 26.8                    | 2.50               | 25.00     | 0                              | 107                   | 79.4     | 136       |             |      |          |      |  |

|                                   |                         |                    |           |                                |                       |          |           |             |      |          |      |  |
|-----------------------------------|-------------------------|--------------------|-----------|--------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>2505026-001ADUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>5/5/2025</b>     | RunNo: <b>99485</b>   |          |           |             |      |          |      |  |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99485</b> |                    |           | Analysis Date: <b>5/5/2025</b> | SeqNo: <b>2072292</b> |          |           |             |      |          |      |  |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                    | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Alkalinity, Total (As CaCO3)      | 335                     | 25.0               |           |                                |                       |          |           | 328.8       | 1.93 | 20       | D    |  |

|                                   |                         |                    |           |                                |                       |          |           |             |      |          |      |  |
|-----------------------------------|-------------------------|--------------------|-----------|--------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>2505036-001ADUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b> |           | Prep Date: <b>5/5/2025</b>     | RunNo: <b>99485</b>   |          |           |             |      |          |      |  |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99485</b> |                    |           | Analysis Date: <b>5/5/2025</b> | SeqNo: <b>2072303</b> |          |           |             |      |          |      |  |
| Analyte                           | Result                  | RL                 | SPK value | SPK Ref Val                    | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Alkalinity, Total (As CaCO3)      | 246                     | 25.0               |           |                                |                       |          |           | 227.3       | 7.73 | 20       | D    |  |

|                              |                         |                    |           |                                |                       |          |           |             |      |          |      |  |
|------------------------------|-------------------------|--------------------|-----------|--------------------------------|-----------------------|----------|-----------|-------------|------|----------|------|--|
| Sample ID: <b>MB-99485</b>   | SampType: <b>MBLK</b>   | Units: <b>mg/L</b> |           | Prep Date: <b>5/5/2025</b>     | RunNo: <b>99485</b>   |          |           |             |      |          |      |  |
| Client ID: <b>MBLKW</b>      | Batch ID: <b>R99485</b> |                    |           | Analysis Date: <b>5/5/2025</b> | SeqNo: <b>2072380</b> |          |           |             |      |          |      |  |
| Analyte                      | Result                  | RL                 | SPK value | SPK Ref Val                    | %REC                  | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |  |
| Alkalinity, Total (As CaCO3) | ND                      | 2.50               |           |                                |                       |          |           |             |      |          |      |  |

**Work Order:** 2505035  
**CLIENT:** Friedman & Bruya  
**Project:** 505030

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

| Sample ID: <b>MB-47608</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/2/2025</b>     |           | RunNo: <b>99647</b>   |      |          |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47608</b> |           |                    |      | Analysis Date: <b>5/2/2025</b> |           | SeqNo: <b>2075587</b> |      |          |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                   | ND     | 0.100                  |           |                    |      |                                |           |                       |      |          |      |
| Chloride                   | ND     | 0.200                  |           |                    |      |                                |           |                       |      |          |      |
| Nitrite (as N)             | ND     | 0.200                  |           |                    |      |                                |           |                       |      |          |      |
| Bromide                    | ND     | 0.600                  |           |                    |      |                                |           |                       |      |          |      |
| Nitrate (as N)             | ND     | 0.200                  |           |                    |      |                                |           |                       |      |          |      |
| Ortho-Phosphate (as P)     | ND     | 0.400                  |           |                    |      |                                |           |                       |      |          |      |
| Sulfate                    | ND     | 1.00                   |           |                    |      |                                |           |                       |      |          |      |

| Sample ID: <b>LCS-47608</b> |        | SampType: <b>LCS</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/2/2025</b>     |           | RunNo: <b>99647</b>   |      |          |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47608</b> |           |                    |      | Analysis Date: <b>5/2/2025</b> |           | SeqNo: <b>2075589</b> |      |          |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                    | 0.522  | 0.100                  | 0.5000    | 0                  | 104  | 90                             | 110       |                       |      |          |      |
| Chloride                    | 0.768  | 0.200                  | 0.7500    | 0                  | 102  | 90                             | 110       |                       |      |          |      |
| Nitrite (as N)              | 0.756  | 0.200                  | 0.7500    | 0                  | 101  | 90                             | 110       |                       |      |          |      |
| Bromide                     | 2.57   | 0.600                  | 2.500     | 0                  | 103  | 90                             | 110       |                       |      |          |      |
| Nitrate (as N)              | 0.778  | 0.200                  | 0.7500    | 0                  | 104  | 90                             | 110       |                       |      |          |      |
| Ortho-Phosphate (as P)      | 1.14   | 0.400                  | 1.250     | 0                  | 91.4 | 90                             | 110       |                       |      |          |      |
| Sulfate                     | 3.82   | 1.00                   | 3.750     | 0                  | 102  | 90                             | 110       |                       |      |          |      |

| Sample ID: <b>2505035-001ADUP</b>    |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/2/2025</b>     |           | RunNo: <b>99647</b>   |       |          |      |
|--------------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>Control-EFF-050125</b> |        | Batch ID: <b>47608</b> |           |                    |      | Analysis Date: <b>5/2/2025</b> |           | SeqNo: <b>2075592</b> |       |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Fluoride                             | 0.167  | 0.100                  |           |                    |      |                                |           | 0.1670                | 0     | 20       |      |
| Chloride                             | 4.33   | 0.200                  |           |                    |      |                                |           | 4.310                 | 0.486 | 20       |      |
| Nitrite (as N)                       | ND     | 0.200                  |           |                    |      |                                |           | 0                     |       | 20       |      |
| Bromide                              | ND     | 0.600                  |           |                    |      |                                |           | 0                     |       | 20       |      |
| Nitrate (as N)                       | ND     | 0.200                  |           |                    |      |                                |           | 0                     |       | 20       |      |
| Ortho-Phosphate (as P)               | 0.557  | 0.400                  |           |                    |      |                                |           | 0.4400                | 23.5  | 20       |      |
| Sulfate                              | 4.49   | 1.00                   |           |                    |      |                                |           | 4.479                 | 0.178 | 20       |      |



**Work Order:** 2505035  
**CLIENT:** Friedman & Bruya  
**Project:** 505030

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                                      |        |                        |           |             |                                |          |                            |             |      |                       |      |  |
|--------------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2505035-001ADUP</b>    |        | SampType: <b>DUP</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             |      | RunNo: <b>99647</b>   |      |  |
| Client ID: <b>Control-EFF-050125</b> |        | Batch ID: <b>47608</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             |      | SeqNo: <b>2075592</b> |      |  |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                                      |        |                        |           |             |                                |          |                            |             |                       |          |      |
|--------------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2505035-001AMS</b>     |        | SampType: <b>MS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             | RunNo: <b>99647</b>   |          |      |
| Client ID: <b>Control-EFF-050125</b> |        | Batch ID: <b>47608</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             | SeqNo: <b>2075593</b> |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                             | 0.685  | 0.100                  | 0.5000    | 0.1670      | 104                            | 80       | 120                        |             |                       |          |      |
| Chloride                             | 5.09   | 0.200                  | 0.7500    | 4.310       | 103                            | 80       | 120                        |             |                       |          |      |
| Nitrite (as N)                       | 0.772  | 0.200                  | 0.7500    | 0           | 103                            | 80       | 120                        |             |                       |          |      |
| Bromide                              | 2.63   | 0.600                  | 2.500     | 0           | 105                            | 80       | 120                        |             |                       |          |      |
| Nitrate (as N)                       | 0.790  | 0.200                  | 0.7500    | 0           | 105                            | 80       | 120                        |             |                       |          |      |
| Ortho-Phosphate (as P)               | 1.63   | 0.400                  | 1.250     | 0.4400      | 95.0                           | 80       | 120                        |             |                       |          |      |
| Sulfate                              | 8.70   | 1.00                   | 3.750     | 4.479       | 113                            | 80       | 120                        |             |                       |          |      |

|                                      |        |                        |           |             |                                |          |                            |             |                       |          |      |
|--------------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2505035-001AMSD</b>    |        | SampType: <b>MSD</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/2/2025</b> |             | RunNo: <b>99647</b>   |          |      |
| Client ID: <b>Control-EFF-050125</b> |        | Batch ID: <b>47608</b> |           |             | Analysis Date: <b>5/2/2025</b> |          |                            |             | SeqNo: <b>2075594</b> |          |      |
| Analyte                              | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                             | 0.683  | 0.100                  | 0.5000    | 0.1670      | 103                            | 80       | 120                        | 0.6850      | 0.292                 | 20       |      |
| Chloride                             | 5.08   | 0.200                  | 0.7500    | 4.310       | 102                            | 80       | 120                        | 5.086       | 0.177                 | 20       |      |
| Nitrite (as N)                       | 0.770  | 0.200                  | 0.7500    | 0           | 103                            | 80       | 120                        | 0.7720      | 0.259                 | 20       |      |
| Bromide                              | 2.62   | 0.600                  | 2.500     | 0           | 105                            | 80       | 120                        | 2.628       | 0.343                 | 20       |      |
| Nitrate (as N)                       | 0.788  | 0.200                  | 0.7500    | 0           | 105                            | 80       | 120                        | 0.7900      | 0.253                 | 20       |      |
| Ortho-Phosphate (as P)               | 1.78   | 0.400                  | 1.250     | 0.4400      | 107                            | 80       | 120                        | 1.627       | 8.76                  | 20       |      |
| Sulfate                              | 8.73   | 1.00                   | 3.750     | 4.479       | 113                            | 80       | 120                        | 8.700       | 0.310                 | 20       |      |

**Work Order:** 2505035  
**CLIENT:** Friedman & Bruya  
**Project:** 505030

## QC SUMMARY REPORT

### Salinity by SM 2520B

|                             |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>MB-R99559</b> |        | SampType: <b>MBLK</b>   |           |             | Units: %                       |          | Prep Date: <b>5/7/2025</b> |                       |      | RunNo: <b>99559</b> |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99559</b> |           |             | Analysis Date: <b>5/7/2025</b> |          |                            | SeqNo: <b>2073711</b> |      |                     |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity ND 0.000100

|                              |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99559</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>µS/cm</b>            |          | Prep Date: <b>5/7/2025</b> |                       |      | RunNo: <b>99559</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99559</b> |           |             | Analysis Date: <b>5/7/2025</b> |          |                            | SeqNo: <b>2073712</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 992 0.00100 1,000 0 99.2 79.1 119.1

|                            |        |                  |           |             |                         |          |                     |             |                |              |      |  |
|----------------------------|--------|------------------|-----------|-------------|-------------------------|----------|---------------------|-------------|----------------|--------------|------|--|
| Sample ID: 2504714-002ADUP |        | SampType: DUP    |           |             | Units: %                |          | Prep Date: 5/7/2025 |             |                | RunNo: 99559 |      |  |
| Client ID: BATCH           |        | Batch ID: R99559 |           |             | Analysis Date: 5/7/2025 |          |                     |             | SeqNo: 2073715 |              |      |  |
| Analyte                    | Result | RL               | SPK value | SPK Ref Val | %REC                    | LowLimit | HighLimit           | RPD Ref Val | %RPD           | RPDLimit     | Qual |  |

Salinity 0.0100 0.000100 0.01000 0 30

|                                   |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2505022-001ADUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: %                       |          | Prep Date: <b>5/7/2025</b> |                       |      | RunNo: <b>99559</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99559</b> |           |             | Analysis Date: <b>5/7/2025</b> |          |                            | SeqNo: <b>2073719</b> |      |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Salinity 0.0100 0.000100 0.01000 0 30

**Work Order:** 2505035  
**CLIENT:** Friedman & Bruya  
**Project:** 505030

## QC SUMMARY REPORT

### Total Dissolved Solids by SM 2540C

|                             |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>MB-R99468</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99468</b> |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99468</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072391</b> |      |                     |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                        |    |      |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|
| Total Dissolved Solids | ND | 5.00 |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|

|                              |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>LCS-R99468</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/5/2025</b> |             |      | RunNo: <b>99468</b>   |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99468</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            |             |      | SeqNo: <b>2072392</b> |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                        |     |      |       |   |      |    |     |  |  |  |  |
|------------------------|-----|------|-------|---|------|----|-----|--|--|--|--|
| Total Dissolved Solids | 286 | 5.00 | 300.0 | 0 | 95.3 | 65 | 135 |  |  |  |  |
|------------------------|-----|------|-------|---|------|----|-----|--|--|--|--|

|                            |        |                  |           |                         |      |                     |           |             |                |          |      |
|----------------------------|--------|------------------|-----------|-------------------------|------|---------------------|-----------|-------------|----------------|----------|------|
| Sample ID: 2505053-001BDUP |        | SampType: DUP    |           | Units: mg/L             |      | Prep Date: 5/5/2025 |           |             | RunNo: 99468   |          |      |
| Client ID: BATCH           |        | Batch ID: R99468 |           | Analysis Date: 5/5/2025 |      |                     |           |             | SeqNo: 2072448 |          |      |
| Analyte                    | Result | RL               | SPK value | SPK Ref Val             | %REC | LowLimit            | HighLimit | RPD Ref Val | %RPD           | RPDLimit | Qual |

|                        |       |      |  |  |  |  |  |       |      |    |  |
|------------------------|-------|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 9,430 | 5.00 |  |  |  |  |  | 9,036 | 4.25 | 30 |  |
|------------------------|-------|------|--|--|--|--|--|-------|------|----|--|

|                                   |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2505053-002BDUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/5/2025</b> |             |      | RunNo: <b>99468</b>   |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99468</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            |             |      | SeqNo: <b>2072450</b> |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                        |       |      |  |  |  |  |  |       |      |    |  |
|------------------------|-------|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 6,590 | 5.00 |  |  |  |  |  | 6,684 | 1.42 | 30 |  |
|------------------------|-------|------|--|--|--|--|--|-------|------|----|--|

**Work Order:** 2505035  
**CLIENT:** Friedman & Bruya  
**Project:** 505030

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                         |                         |                                |           |                            |                                                        |
|-------------------------|-------------------------|--------------------------------|-----------|----------------------------|--------------------------------------------------------|
| Sample ID: <b>MB</b>    | SampType: <b>MBLK</b>   | Units: <b>mg/L</b>             |           | Prep Date: <b>5/8/2024</b> | RunNo: <b>99630</b>                                    |
| Client ID: <b>MBLKW</b> | Batch ID: <b>R99630</b> | Analysis Date: <b>5/8/2024</b> |           | SeqNo: <b>2075132</b>      |                                                        |
| Analyte                 | Result                  | RL                             | SPK value | SPK Ref Val                | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |

Total Organic Carbon ND 0.700

|                        |                         |                                |           |                            |                                                        |
|------------------------|-------------------------|--------------------------------|-----------|----------------------------|--------------------------------------------------------|
| Sample ID: <b>LCS</b>  | SampType: <b>LCS</b>    | Units: <b>mg/L</b>             |           | Prep Date: <b>5/8/2024</b> | RunNo: <b>99630</b>                                    |
| Client ID: <b>LCSW</b> | Batch ID: <b>R99630</b> | Analysis Date: <b>5/8/2024</b> |           | SeqNo: <b>2075133</b>      |                                                        |
| Analyte                | Result                  | RL                             | SPK value | SPK Ref Val                | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |

Total Organic Carbon 21.6 0.700 25.00 0 86.4 79.6 120

|                                    |                         |                                |           |                            |                                                        |
|------------------------------------|-------------------------|--------------------------------|-----------|----------------------------|--------------------------------------------------------|
| Sample ID: <b>2505035-002BDUP</b>  | SampType: <b>DUP</b>    | Units: <b>mg/L</b>             |           | Prep Date: <b>5/8/2024</b> | RunNo: <b>99630</b>                                    |
| Client ID: <b>20ZVI-EFF-050125</b> | Batch ID: <b>R99630</b> | Analysis Date: <b>5/8/2024</b> |           | SeqNo: <b>2075136</b>      |                                                        |
| Analyte                            | Result                  | RL                             | SPK value | SPK Ref Val                | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |

Total Organic Carbon 3.52 0.700 3.529 0.398 15

|                                    |                         |                                |           |                            |                                                        |
|------------------------------------|-------------------------|--------------------------------|-----------|----------------------------|--------------------------------------------------------|
| Sample ID: <b>2505035-003BMS</b>   | SampType: <b>MS</b>     | Units: <b>mg/L</b>             |           | Prep Date: <b>5/8/2024</b> | RunNo: <b>99630</b>                                    |
| Client ID: <b>50ZVI-EFF-050125</b> | Batch ID: <b>R99630</b> | Analysis Date: <b>5/8/2024</b> |           | SeqNo: <b>2075138</b>      |                                                        |
| Analyte                            | Result                  | RL                             | SPK value | SPK Ref Val                | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |

Total Organic Carbon 23.0 0.700 25.00 2.942 80.4 85 115 S

**NOTES:**

S - Outlying spike recoveries were associated with this sample.

|                                   |                         |                                |           |                            |                                                        |
|-----------------------------------|-------------------------|--------------------------------|-----------|----------------------------|--------------------------------------------------------|
| Sample ID: <b>2505036-002BDUP</b> | SampType: <b>DUP</b>    | Units: <b>mg/L</b>             |           | Prep Date: <b>5/8/2024</b> | RunNo: <b>99630</b>                                    |
| Client ID: <b>BATCH</b>           | Batch ID: <b>R99630</b> | Analysis Date: <b>5/8/2024</b> |           | SeqNo: <b>2075144</b>      |                                                        |
| Analyte                           | Result                  | RL                             | SPK value | SPK Ref Val                | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |

Total Organic Carbon 6.17 0.700 6.144 0.422 15

Work Order: 2505035  
 CLIENT: Friedman & Bruya  
 Project: 505030

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                                  |        |                         |           |             |                                |          |                            |             |                       |                     |      |  |
|----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>2505036-002BMS</b> |        | SampType: <b>MS</b>     |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/8/2024</b> |             |                       | RunNo: <b>99630</b> |      |  |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>R99630</b> |           |             | Analysis Date: <b>5/8/2024</b> |          |                            |             | SeqNo: <b>2075145</b> |                     |      |  |
| Analyte                          | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |
| Total Organic Carbon             | 25.4   | 0.700                   | 25.00     | 6.144       | 76.9                           | 85       | 115                        |             |                       |                     | S    |  |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

|                                   |        |                         |           |             |                                |          |                            |             |                       |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>2505036-002BMSD</b> |        | SampType: <b>MSD</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/8/2024</b> |             |                       | RunNo: <b>99630</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99630</b> |           |             | Analysis Date: <b>5/8/2024</b> |          |                            |             | SeqNo: <b>2075146</b> |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |
| Total Organic Carbon              | 25.2   | 0.700                   | 25.00     | 6.144       | 76.3                           | 85       | 115                        | 25.36       | 0.561                 | 15                  | S    |  |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

**Work Order:** 2505035  
**CLIENT:** Friedman & Bruya  
**Project:** 505030

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

|                            |        |                        |           |                    |      |                            |                                |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47634</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/6/2025</b> |                                |             | RunNo: <b>99543</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47634</b> |           |                    |      |                            | Analysis Date: <b>5/6/2025</b> |             |                     | SeqNo: <b>2073444</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                    | ND     | 60.0                   |           |                    |      |                            |                                |             |                     |                       |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                            |                                |             |                     |                       |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                            |                                |             |                     |                       |      |
| Sodium                     | ND     | 100                    |           |                    |      |                            |                                |             |                     |                       |      |

|                             |                        |                                |           |             |      |                            |           |                       |                     |          |      |
|-----------------------------|------------------------|--------------------------------|-----------|-------------|------|----------------------------|-----------|-----------------------|---------------------|----------|------|
| Sample ID: <b>LCS-47634</b> | SampType: <b>LCS</b>   | Units: <b>µg/L</b>             |           |             |      | Prep Date: <b>5/6/2025</b> |           |                       | RunNo: <b>99543</b> |          |      |
| Client ID: <b>LCSW</b>      | Batch ID: <b>47634</b> | Analysis Date: <b>5/6/2025</b> |           |             |      |                            |           | SeqNo: <b>2073445</b> |                     |          |      |
| Analyte                     | Result                 | RL                             | SPK value | SPK Ref Val | %REC | LowLimit                   | HighLimit | RPD Ref Val           | %RPD                | RPDLimit | Qual |
| Calcium                     | 983                    | 60.0                           | 1,000     | 0           | 98.3 | 80                         | 120       |                       |                     |          |      |
| Magnesium                   | 966                    | 50.0                           | 1,000     | 0           | 96.6 | 80                         | 120       |                       |                     |          |      |
| Potassium                   | 1,000                  | 50.0                           | 1,000     | 0           | 100  | 80                         | 120       |                       |                     |          |      |
| Sodium                      | 1,030                  | 100                            | 1,000     | 0           | 103  | 80                         | 120       |                       |                     |          |      |

|                                  |        |                        |           |                    |       |                            |                                |             |                     |                       |      |
|----------------------------------|--------|------------------------|-----------|--------------------|-------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2505001-001DMS</b> |        | SampType: <b>MS</b>    |           | Units: <b>µg/L</b> |       | Prep Date: <b>5/6/2025</b> |                                |             | RunNo: <b>99543</b> |                       |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47634</b> |           |                    |       |                            | Analysis Date: <b>5/6/2025</b> |             |                     | SeqNo: <b>2073447</b> |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val        | %REC  | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                          | 36,300 | 60.0                   | 1,000     | 36,890             | -63.9 | 75                         | 125                            |             |                     |                       | ES   |
| Magnesium                        | 33,300 | 50.0                   | 1,000     | 33,560             | -28.2 | 75                         | 125                            |             |                     |                       | ES   |
| Potassium                        | 1,960  | 50.0                   | 1,000     | 1,010              | 94.7  | 75                         | 125                            |             |                     |                       |      |
| Sodium                           | 48,700 | 100                    | 1,000     | 49,540             | -79.8 | 75                         | 125                            |             |                     |                       | ES   |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                   |        |                        |           |             |                                |          |                            |             |                       |          |      |
|-----------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2505001-001DMSD</b> |        | SampType: <b>MSD</b>   |           |             | Units: <b>µg/L</b>             |          | Prep Date: <b>5/6/2025</b> |             | RunNo: <b>99543</b>   |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47634</b> |           |             | Analysis Date: <b>5/6/2025</b> |          |                            |             | SeqNo: <b>2073449</b> |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                           | 36,700 | 60.0                   | 1,000     | 36,890      | -22.6                          | 75       | 125                        | 36,260      | 1.13                  | 20       | ES   |
| Magnesium                         | 33,500 | 50.0                   | 1,000     | 33,560      | -4.89                          | 75       | 125                        | 33,280      | 0.699                 | 20       | ES   |

Work Order: 2505035  
 CLIENT: Friedman & Bruya  
 Project: 505030

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

| Sample ID: <b>2505001-001DMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |       | Prep Date: <b>5/6/2025</b>     |           | RunNo: <b>99543</b>   |       |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|-------|--------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47634</b> |           |                    |       | Analysis Date: <b>5/6/2025</b> |           | SeqNo: <b>2073449</b> |       |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC  | LowLimit                       | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Potassium                         | 2,010  | 50.0                   | 1,000     | 1,010              | 99.7  | 75                             | 125       | 1,957                 | 2.51  | 20       |      |
| Sodium                            | 48,900 | 100                    | 1,000     | 49,540             | -64.4 | 75                             | 125       | 48,740                | 0.316 | 20       | ES   |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

**Work Order:** 2505035  
**CLIENT:** Friedman & Bruya  
**Project:** 505030

## QC SUMMARY REPORT

### Total Metals by EPA 6020B

|                            |        |                        |           |             |                                |          |                            |                       |      |                     |      |  |
|----------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>MB-47611</b> |        | SampType: <b>MBLK</b>  |           |             | Units: <b>µg/L</b>             |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99504</b> |      |  |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47611</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072831</b> |      |                     |      |  |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|           |    |      |  |  |  |  |  |  |  |  |  |
|-----------|----|------|--|--|--|--|--|--|--|--|--|
| Calcium   | ND | 250  |  |  |  |  |  |  |  |  |  |
| Magnesium | ND | 50.0 |  |  |  |  |  |  |  |  |  |
| Potassium | ND | 50.0 |  |  |  |  |  |  |  |  |  |
| Sodium    | ND | 100  |  |  |  |  |  |  |  |  |  |

|                             |        |                        |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-47611</b> |        | SampType: <b>LCS</b>   |           |             | Units: <b>µg/L</b>             |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99504</b> |      |  |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47611</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072832</b> |      |                     |      |  |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|           |       |      |       |   |      |    |     |  |  |  |  |
|-----------|-------|------|-------|---|------|----|-----|--|--|--|--|
| Calcium   | 936   | 250  | 1,000 | 0 | 93.6 | 80 | 120 |  |  |  |  |
| Magnesium | 1,030 | 50.0 | 1,000 | 0 | 103  | 80 | 120 |  |  |  |  |
| Potassium | 1,000 | 50.0 | 1,000 | 0 | 100  | 80 | 120 |  |  |  |  |
| Sodium    | 1,080 | 100  | 1,000 | 0 | 108  | 80 | 120 |  |  |  |  |

|                                  |        |                        |           |             |                                |          |                            |                       |      |                     |      |  |
|----------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2505005-001BMS</b> |        | SampType: <b>MS</b>    |           |             | Units: <b>µg/L</b>             |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99504</b> |      |  |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47611</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072834</b> |      |                     |      |  |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|           |        |      |       |        |      |    |     |  |  |  |    |
|-----------|--------|------|-------|--------|------|----|-----|--|--|--|----|
| Calcium   | 23,000 | 250  | 1,000 | 22,910 | 6.83 | 75 | 125 |  |  |  | ES |
| Magnesium | 9,850  | 50.0 | 1,000 | 9,143  | 70.3 | 75 | 125 |  |  |  | ES |
| Potassium | 2,720  | 50.0 | 1,000 | 1,866  | 85.4 | 75 | 125 |  |  |  |    |
| Sodium    | 67,100 | 100  | 1,000 | 68,360 | -130 | 75 | 125 |  |  |  | ES |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                   |        |                        |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2505005-001BMSD</b> |        | SampType: <b>MSD</b>   |           |             | Units: <b>µg/L</b>             |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99504</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47611</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072836</b> |      |                     |      |  |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|           |        |      |       |        |      |    |     |        |      |    |   |
|-----------|--------|------|-------|--------|------|----|-----|--------|------|----|---|
| Calcium   | 23,800 | 250  | 1,000 | 22,910 | 90.6 | 75 | 125 | 22,980 | 3.58 | 20 | E |
| Magnesium | 10,300 | 50.0 | 1,000 | 9,143  | 113  | 75 | 125 | 9,846  | 4.25 | 20 | E |



Work Order: 2505035  
 CLIENT: Friedman & Bruya  
 Project: 505030

## QC SUMMARY REPORT

Total Metals by EPA 6020B

|                                   |        |                        |           |                                |      |                            |                       |             |                     |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------------------|------|----------------------------|-----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2505005-001BMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b>             |      | Prep Date: <b>5/5/2025</b> |                       |             | RunNo: <b>99504</b> |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47611</b> |           | Analysis Date: <b>5/5/2025</b> |      |                            | SeqNo: <b>2072836</b> |             |                     |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val                    | %REC | LowLimit                   | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Potassium                         | 2,800  | 50.0                   | 1,000     | 1,866                          | 93.7 | 75                         | 125                   | 2,720       | 3.00                | 20       |      |
| Sodium                            | 69,200 | 100                    | 1,000     | 68,360                         | 86.1 | 75                         | 125                   | 67,060      | 3.17                | 20       | E    |

Client Name: FB

Work Order Number: 2505035

Logged by: Morgan Wilson

Date Received: 5/2/2025 10:50:00 AM

## Chain of Custody

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

## Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

## Special Handling (if applicable)

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

|                      |                      |       |                                                                                                                               |
|----------------------|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|
| Person Notified:     | <input type="text"/> | Date: | <input type="text"/>                                                                                                          |
| By Whom:             | <input type="text"/> | Via:  | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding:           | <input type="text"/> |       |                                                                                                                               |
| Client Instructions: | <input type="text"/> |       |                                                                                                                               |

17. Additional remarks:

## Item Information

| Item # | Temp °C |
|--------|---------|
| Sample | 3.8     |

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Page # 1 of 1

Phone # (206) 285-8282 [merdahl@friedmanandbruya.com](mailto:merdahl@friedmanandbruya.com)

**TURNAROUND TIME**  
☒ Standard TAT  
☐ RUSH \_\_\_\_\_  
 Rush charges authorized by: \_\_\_\_\_

---

**SAMPLE DISPOSAL**  
 Dispose after 30 days  
 Return samples  
 Will call with instructions

| SIGNATURE                                                                                          | PRINT NAME     | COMPANY          | DATE   | TIME |
|----------------------------------------------------------------------------------------------------|----------------|------------------|--------|------|
| Relinquished by:  | Michael Erdahl | Friedman & Bruya | 5/2/15 | 0722 |
| Received by:      | Jack Klautz    |                  | 5/2/15 | 1050 |
| Relinquished by:                                                                                   |                |                  |        |      |
| Received by:                                                                                       |                |                  |        |      |

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 6, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the results from the testing of material submitted on May 2, 2025 from the Glacier Northwest AS230067, F&BI 505054 project. There are 32 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkowski, Marc Chalfant  
ASP0506R.DOC

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on May 2, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 505054 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 505054 -01           | Control-EFF-050225       |
| 505054 -02           | Control-PORT 3-050225    |
| 505054 -03           | Control-PORT 2-050225    |
| 505054 -04           | Control-PORT 1-050225    |
| 505054 -05           | 20ZVI-EFF-050225         |
| 505054 -06           | 20ZVI-PORT 3-050225      |
| 505054 -07           | 20ZVI-PORT 2-050225      |
| 505054 -08           | 20ZVI-PORT 1-050225      |
| 505054 -09           | 50ZVI-EFF-050225         |
| 505054 -10           | 50ZVI-PORT 3-050225      |
| 505054 -11           | 50ZVI-PORT 2-050225      |
| 505054 -12           | 50ZVI-PORT 1-050225      |
| 505054 -13           | INFLUENT-050225          |

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25           | Lab ID:     | 505054-01 x5               |
| Date Analyzed:    | 05/05/25           | Data File:  | 505054-01 x5.097           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 360 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505054-02 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505054-02 x5.119           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 390 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505054-03 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505054-03 x5.120           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 310 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505054-04 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505054-04 x5.121           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 240 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505054-05 x5               |
| Date Analyzed:    | 05/05/25         | Data File:  | 505054-05 x5.098           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 4.2 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-06 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-06 x5.122           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 3.8 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-07 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-07 x5.123           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 21 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-08 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-08 x5.124           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 57 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505054-09 x5               |
| Date Analyzed:    | 05/05/25         | Data File:  | 505054-09 x5.099           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.2 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-10 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-10 x5.125           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.9 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-11 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-11 x5.126           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 7.2 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-12 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-12 x5.127           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 15 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25        | Lab ID:     | 505054-13 x5               |
| Date Analyzed:    | 05/05/25        | Data File:  | 505054-13 x5.100           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 680 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25       | Lab ID:     | I5-383 mb                  |
| Date Analyzed:    | 05/05/25       | Data File:  | I5-383 mb.106              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
|---------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25           | Lab ID:     | 505054-01 x5               |
| Date Analyzed:    | 05/05/25           | Data File:  | 505054-01 x5.093           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 350 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505054-02 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505054-02 x5.108           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 390 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505054-03 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505054-03 x5.109           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 360 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505054-04 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505054-04 x5.110           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 330 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505054-05 x5               |
| Date Analyzed:    | 05/05/25         | Data File:  | 505054-05 x5.094           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 32 |
|---------|----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-06 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-06 x5.111           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 15 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-07 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-07 x5.112           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 21 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-08 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-08 x5.113           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 61 |
|---------|----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505054-09 x5               |
| Date Analyzed:    | 05/05/25         | Data File:  | 505054-09 x5.095           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 1.6 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-10 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-10 x5.114           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 3.1 |
|---------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-11 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-11 x5.115           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 11 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505054-12 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505054-12 x5.118           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |    |
|---------|----|
| Arsenic | 15 |
|---------|----|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25        | Lab ID:     | 505054-13 x5               |
| Date Analyzed:    | 05/05/25        | Data File:  | 505054-13 x5.096           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |     |
|---------|-----|
| Arsenic | 730 |
|---------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25       | Lab ID:     | I5-382 mb                  |
| Date Analyzed:    | 05/05/25       | Data File:  | I5-382 mb.102              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|         |      |
|---------|------|
| Arsenic | <0.2 |
|---------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 05/02/25

Project: Glacier Northwest AS230067, F&BI 505054

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 98                         | 97                          | 80-120                 | 1                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/06/25

Date Received: 05/02/25

Project: Glacier Northwest AS230067, F&BI 505054

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|---------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Arsenic | ug/L (ppb)         | 10             | 95                         | 90                          | 80-120                 | 5                 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

505054

Andrew Yonko fski

## SAMPLE CHAIN OF CUSTODY

05/02/25 K4

Page # 1 of 2

Report To Debra Massey, Marc Chai fsktCompany Aspect ConsultingAddress 7102nd Ave, Suite 550City, State, ZIP Seattle, WA 98104Phone 206-413-5407 Email Debra.Massey@Aspect.com

SAMPLERS (signature)

Emily Rusen

PROJECT NAME

Guarier Northwest

PO #

AS230067

REMARKS

Field Filtered for TPD Metals

Project specific RLS? - Yes / No

INVOICE TO

Please Invoice through Coupa

TURNAROUND TIME

☐ Standard turnaround☒ RUSH 24-hr

SAMPLE DISPOSAL

☐ Archive samples☐ Other

Default: Dispose after 30 days

## ANALYSES REQUESTED

| Sample ID            | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | Total As (6020B) | Dissolved As (6020B) | Notes                                         |
|----------------------|--------|--------------|--------------|-------------|-----------|----------|----------|---------------|------------|---------------|---------------|---------------|------------------|----------------------|-----------------------------------------------|
| Control-EFF-050225   | 01 A-E | 5/2/25       | 0915         | W           | 5         |          |          |               |            |               |               |               | X                | X                    | PUSH THAT FOR ALL SAMPLES FOR MARKED ANALYSES |
| Control-PORT3-050225 | 02 A-B |              | 1025         |             | 2         |          |          |               |            |               |               |               |                  |                      |                                               |
| Control-PORT2-050225 | 03     |              | 1105         |             | 2         |          |          |               |            |               |               |               |                  |                      |                                               |
| Control-PORT1-050225 | 04     |              | 1220         |             | 2         |          |          |               |            |               |               |               |                  |                      |                                               |
| 202V1-EFF-050225     | 05 A-D |              | 0905         |             | 4         |          |          |               |            |               |               |               |                  |                      |                                               |
| 202V1-PORT3-050225   | 06 A-B |              | 1020         |             | 2         |          |          |               |            |               |               |               |                  |                      |                                               |
| 202V1-PORT2-050225   | 07     |              | 1110         |             | 2         |          |          |               |            |               |               |               |                  |                      |                                               |
| 202V1-PORT1-050225   | 08 A-B |              | 1230         |             | 2         |          |          |               |            |               |               |               |                  |                      |                                               |
| 502V1-EFF-050225     | 09 A-E |              | 0910         |             | 5         |          |          |               |            |               |               |               |                  |                      |                                               |
| 502V1-PORT3-050225   | 10 A-B |              | 1030         |             | 2         |          |          |               |            |               |               |               |                  |                      |                                               |

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman &amp; Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

Relinquished by: Emily RusenReceived by: Emily RusenRelinquished by: Emily RusenReceived by: Emily Rusen

Emily Rusen

Emily Rusen

ASPECT

ASPECT

5/2/25

5/2/25

1602

1602

ASPECT

ASPECT

5/2/25

5/2/25

1602

1602

к 4

2 of 2

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| SIGNATURE                              | PRINT NAME     | COMPANY                             | DATE   | TIME |
|----------------------------------------|----------------|-------------------------------------|--------|------|
| Relinquished by: <i>Emily Petersen</i> | EMILY PETERSEN | ASPECT                              | 5/2/25 | 1602 |
| Received by: <i>Eric Young</i>         | ERIC YOUNG     | FOB                                 | 5/2/25 | 1602 |
| Relinquished by:                       |                | Samples received at 4 <sup>th</sup> |        |      |
| Received by:                           |                |                                     |        |      |

# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 505054 CLIENT ASP INITIALS/DATE: (E) 5/2/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 4 °C  
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?  
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)? ☒ YES ☐ NO Initials/Date: (NP) 5/5  
\*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?  
(explain "no" answer below)

|                    |                                                                          |                                           |
|--------------------|--------------------------------------------------------------------------|-------------------------------------------|
| Sample ID's        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Date Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| Time Sampled       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      | <input type="checkbox"/> Not on COC/label |
| # of Containers    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Relinquished       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      |                                           |
| Requested analysis | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold |                                           |

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\*          Number of unused TO17 tubes         

\*\*Fill out Green manifolds billing sheet

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya  
Ann Webber-Bruya  
Michael Erdahl  
Vineta Mills  
Eric Young

5500 4th Ave South  
Seattle, WA 98108-2419  
(206) 285-8282  
office@friedmanandbruya.com  
www.friedmanandbruya.com

May 13, 2025

Delia Massey, Project Manager  
Aspect Consulting  
710 2<sup>nd</sup> Ave S, Suite 550  
Seattle, WA 98104

Dear Ms Massey:

Included are the results from the testing of material submitted on May 2, 2025 from the Glacier Northwest AS230067, F&BI 505055 project. There are 47 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures

c: Aspect Data, Andrew Yonkowski, Marc Chalfant  
ASP0513R.DOC



# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### CASE NARRATIVE

This case narrative encompasses samples received on May 2, 2025 by Friedman & Bruya, Inc. from the Aspect Consulting Glacier Northwest AS230067, F&BI 505055 project. Samples were logged in under the laboratory ID's listed below.

| <u>Laboratory ID</u> | <u>Aspect Consulting</u> |
|----------------------|--------------------------|
| 505055 -01           | Control-EFF-050225       |
| 505055 -02           | Control-PORT 3-050225    |
| 505055 -03           | Control-PORT 2-050225    |
| 505055 -04           | Control-PORT 1-050225    |
| 505055 -05           | 20ZVI-EFF-050225         |
| 505055 -06           | 20ZVI-PORT 3-050225      |
| 505055 -07           | 20ZVI-PORT 2-050225      |
| 505055 -08           | 20ZVI-PORT 1-050225      |
| 505055 -09           | 50ZVI-EFF-050225         |
| 505055 -10           | 50ZVI-PORT 3-050225      |
| 505055 -11           | 50ZVI-PORT 2-050225      |
| 505055 -12           | 50ZVI-PORT 1-050225      |
| 505055 -13           | INFLUENT-050225          |

The samples selected for total organic carbon, salinity, total dissolved solids, total and dissolved cations (K, Ca, Mg, K), and anions (SO<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, PO<sub>4</sub>, Cl, Fl, Br) were sent to Alliance Technical Group for testing. The report is enclosed.

All quality control requirements were acceptable.

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/06/25           | Lab ID:     | 505055-01 1/50             |
| Date Analyzed:    | 05/07/25           | Data File:  | 050706.D                   |
| Matrix:           | Water              | Instrument: | GCMS12                     |
| Units:            | ug/L (ppb)         | Operator:   | VM                         |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 126 d       | 10           | 140          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 760                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/06/25         | Lab ID:     | 505055-09 1/50             |
| Date Analyzed:    | 05/07/25         | Data File:  | 050707.D                   |
| Matrix:           | Water            | Instrument: | GCMS12                     |
| Units:            | ug/L (ppb)       | Operator:   | VM                         |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 123 d       | 10           | 140          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 290                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/06/25        | Lab ID:     | 505055-13 1/50             |
| Date Analyzed:    | 05/07/25        | Data File:  | 050708.D                   |
| Matrix:           | Water           | Instrument: | GCMS12                     |
| Units:            | ug/L (ppb)      | Operator:   | VM                         |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 173 d       | 10           | 140          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | 660                         |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Semivolatile Compounds By EPA Method 8270E

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/06/25       | Lab ID:     | 05-1124 mb 1/0.5           |
| Date Analyzed:    | 05/06/25       | Data File:  | 050611.D                   |
| Matrix:           | Water          | Instrument: | GCMS12                     |
| Units:            | ug/L (ppb)     | Operator:   | DBA                        |

|                      |             |              |              |
|----------------------|-------------|--------------|--------------|
| Surrogates:          | % Recovery: | Lower Limit: | Upper Limit: |
| 2,4,6-Tribromophenol | 73          | 10           | 140          |

|                   |                             |
|-------------------|-----------------------------|
| Compounds:        | Concentration<br>ug/L (ppb) |
| Pentachlorophenol | <0.2                        |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25           | Lab ID:     | 505055-01 x5               |
| Date Analyzed:    | 05/05/25           | Data File:  | 505055-01 x5.093           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 3.1 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25           | Lab ID:     | 505055-01 x10              |
| Date Analyzed:    | 05/05/25           | Data File:  | 505055-01 x10.151          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |       |
|------|-------|
| Iron | 1,700 |
|------|-------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25           | Lab ID:     | 505055-01 x100             |
| Date Analyzed:    | 05/05/25           | Data File:  | 505055-01 x100.150         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 650 |
|-----------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505055-02 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505055-02 x5.108           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505055-03 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505055-03 x5.109           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 2.8 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505055-04 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505055-04 x5.110           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505055-05 x5               |
| Date Analyzed:    | 05/05/25         | Data File:  | 505055-05 x5.094           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |    |
|--------|----|
| Copper | 38 |
|--------|----|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505055-05 x1000            |
| Date Analyzed:    | 05/05/25         | Data File:  | 505055-05 x1000.216        |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |         |
|-----------|---------|
| Iron      | 200,000 |
| Manganese | 1,200   |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-06 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-06 x5.209           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 7.9 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-07 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-07 x5.210           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 3.9 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-08 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-08 x5.211           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 8.5 |
|--------|-----|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505055-09 x5               |
| Date Analyzed:    | 05/05/25         | Data File:  | 505055-09 x5.095           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505055-09 x500             |
| Date Analyzed:    | 05/05/25         | Data File:  | 505055-09 x500.218         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |         |
|-----------|---------|
| Iron      | 110,000 |
| Manganese | 650     |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-10 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-10 x5.212           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 4.7 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-11 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-11 x5.213           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-12 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-12 x5.118           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25        | Lab ID:     | 505055-13 x5               |
| Date Analyzed:    | 05/05/25        | Data File:  | 505055-13 x5.096           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25        | Lab ID:     | 505055-13 x100             |
| Date Analyzed:    | 05/05/25        | Data File:  | 505055-13 x100.226         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 15,000 |
| Manganese | 180    |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Total Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25       | Lab ID:     | I5-382 mb                  |
| Date Analyzed:    | 05/05/25       | Data File:  | I5-382 mb.102              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte:  | Concentration<br>ug/L (ppb) |
|-----------|-----------------------------|
| Copper    | <0.5                        |
| Iron      | <50                         |
| Manganese | <1                          |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25           | Lab ID:     | 505055-01 x5               |
| Date Analyzed:    | 05/05/25           | Data File:  | 505055-01 x5.097           |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |     |
|--------|-----|
| Copper | 3.0 |
|--------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25           | Lab ID:     | 505055-01 x10              |
| Date Analyzed:    | 05/05/25           | Data File:  | 505055-01 x10.228          |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|      |       |
|------|-------|
| Iron | 1,300 |
|------|-------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                    |             |                            |
|-------------------|--------------------|-------------|----------------------------|
| Client Sample ID: | Control-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25           | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25           | Lab ID:     | 505055-01 x100             |
| Date Analyzed:    | 05/05/25           | Data File:  | 505055-01 x100.227         |
| Matrix:           | Water              | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)         | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |     |
|-----------|-----|
| Manganese | 610 |
|-----------|-----|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505055-02 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505055-02 x5.119           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505055-03 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505055-03 x5.120           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                       |             |                            |
|-------------------|-----------------------|-------------|----------------------------|
| Client Sample ID: | Control-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25              | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25              | Lab ID:     | 505055-04 x5               |
| Date Analyzed:    | 05/05/25              | Data File:  | 505055-04 x5.121           |
| Matrix:           | Water                 | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)            | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505055-05 x5               |
| Date Analyzed:    | 05/05/25         | Data File:  | 505055-05 x5.098           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505055-05 x500             |
| Date Analyzed:    | 05/06/25         | Data File:  | 505055-05 x500.070         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 98,000 |
| Manganese | 880    |



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-06 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-06 x5.122           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-07 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-07 x5.123           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 20ZVI-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-08 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-08 x5.214           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505055-09 x5               |
| Date Analyzed:    | 05/05/25         | Data File:  | 505055-09 x5.099           |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                  |             |                            |
|-------------------|------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-EFF-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25         | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25         | Lab ID:     | 505055-09 x500             |
| Date Analyzed:    | 05/05/25         | Data File:  | 505055-09 x500.230         |
| Matrix:           | Water            | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)       | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 96,000 |
| Manganese | 620    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 3-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-10 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-10 x5.125           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 2-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-11 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-11 x5.215           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                     |             |                            |
|-------------------|---------------------|-------------|----------------------------|
| Client Sample ID: | 50ZVI-PORT 1-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25            | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25            | Lab ID:     | 505055-12 x5               |
| Date Analyzed:    | 05/05/25            | Data File:  | 505055-12 x5.127           |
| Matrix:           | Water               | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)          | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25        | Lab ID:     | 505055-13 x5               |
| Date Analyzed:    | 05/05/25        | Data File:  | 505055-13 x5.100           |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|        |      |
|--------|------|
| Copper | <2.5 |
|--------|------|

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Analysis For Dissolved Metals By EPA Method 6020B

|                   |                 |             |                            |
|-------------------|-----------------|-------------|----------------------------|
| Client Sample ID: | INFLUENT-050225 | Client:     | Aspect Consulting          |
| Date Received:    | 05/02/25        | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25        | Lab ID:     | 505055-13 x100             |
| Date Analyzed:    | 05/05/25        | Data File:  | 505055-13 x100.232         |
| Matrix:           | Water           | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)      | Operator:   | SP                         |

| Analyte: | Concentration<br>ug/L (ppb) |
|----------|-----------------------------|
|----------|-----------------------------|

|           |        |
|-----------|--------|
| Iron      | 15,000 |
| Manganese | 170    |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

|                   |                |             |                            |
|-------------------|----------------|-------------|----------------------------|
| Client Sample ID: | Method Blank   | Client:     | Aspect Consulting          |
| Date Received:    | Not Applicable | Project:    | Glacier Northwest AS230067 |
| Date Extracted:   | 05/05/25       | Lab ID:     | I5-383 mb                  |
| Date Analyzed:    | 05/05/25       | Data File:  | I5-383 mb.106              |
| Matrix:           | Water          | Instrument: | ICPMS3                     |
| Units:            | ug/L (ppb)     | Operator:   | SP                         |

| Analyte:  | Concentration<br>ug/L (ppb) |
|-----------|-----------------------------|
| Copper    | <0.5                        |
| Iron      | <50                         |
| Manganese | <1                          |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/13/25

Date Received: 05/02/25

Project: Glacier Northwest AS230067, F&BI 505055

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER  
SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E**

Laboratory Code: Laboratory Control Sample

| Analyte           | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-------------------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Pentachlorophenol | ug/L (ppb)         | 10             | 94                         | 81                          | 10-144                 | 15                |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/13/25

Date Received: 05/02/25

Project: Glacier Northwest AS230067, F&BI 505055

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Copper    | ug/L (ppb)         | 20             | 98                         | 95                          | 80-120                 | 3                 |
| Iron      | ug/L (ppb)         | 100            | 96                         | 92                          | 80-120                 | 4                 |
| Manganese | ug/L (ppb)         | 20             | 98                         | 97                          | 80-120                 | 1                 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/13/25

Date Received: 05/02/25

Project: Glacier Northwest AS230067, F&BI 505055

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF WATER SAMPLES  
FOR DISSOLVED METALS USING EPA METHOD 6020B**

Laboratory Code: Laboratory Control Sample

| Analyte   | Reporting<br>Units | Spike<br>Level | Percent<br>Recovery<br>LCS | Percent<br>Recovery<br>LCSD | Acceptance<br>Criteria | RPD<br>(Limit 20) |
|-----------|--------------------|----------------|----------------------------|-----------------------------|------------------------|-------------------|
| Copper    | ug/L (ppb)         | 20             | 102                        | 101                         | 80-120                 | 1                 |
| Iron      | ug/L (ppb)         | 100            | 99                         | 98                          | 80-120                 | 1                 |
| Manganese | ug/L (ppb)         | 20             | 102                        | 101                         | 80-120                 | 1                 |

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### **Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Page # 1 of 2

| SIGNATURE                                                                                          | PRINT NAME  | COMPANY             | DATE            | TIME |
|----------------------------------------------------------------------------------------------------|-------------|---------------------|-----------------|------|
| Relinquished by:  | EMILY BUSEN | ASPECT              | 5/2/25          | 1601 |
| Received by:     | ERIC LOOIS  | F&B                 | 5/2/25          | 1601 |
| Relinquished by:                                                                                   |             | Samples received at | 4 <sup>00</sup> |      |
| Received by:                                                                                       |             |                     |                 |      |





# SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 505053 (NP) CLIENT ASP INITIALS/ DATE: (E) 5/2/25

If custody seals are present on cooler, are they intact?

☒ NA ☐ YES ☐ NO

Cooler/Sample temperature

4 °C

Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs?

☒ YES ☐ NO

How did samples arrive?

☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody\* (COC)?

☒ YES ☐ NO

Initials/

(NP) 5/5

\*or other representative documents, letters, and/or shipping memos

Date:

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below)

☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below)

☒ YES ☐ NO

Were appropriate sample containers used?

☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact?

☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free?

☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label? (explain "no" answer below)

Sample ID's ☒ Yes ☐ No ☐ Not on COC/label

Date Sampled ☒ Yes ☐ No ☐ Not on COC/label

Time Sampled ☒ Yes ☐ No ☐ Not on COC/label

# of Containers ☒ Yes ☐ No

Relinquished ☒ Yes ☐ No

Requested analysis ☒ Yes ☐ On Hold

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received?

☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters\*\*          Number of unused TO17 tubes         

\*\*Fill out Green manifolds billing sheet

**Friedman & Bruya**

Michael Erdahl

5500 4th Ave S

Seattle, WA 98108

**RE: 505055,**

**Work Order Number: 2505080**

May 12, 2025

**Attention Michael Erdahl:**

Alliance Technical Group, LLC - Seattle received 4 sample(s) on 5/5/2025 for the analyses presented in the following report.

***Dissolved Metals by EPA 6020B***

***Ion Chromatography by EPA 300.0***

***Salinity by SM 2520B***

***Total Alkalinity by EPA 310.2***

***Total Dissolved Solids by SM 2540C***

***Total Metals by EPA 6020B***

***Total Organic Carbon by SM 5310C***

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,



Brianna Barnes  
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original



---

**CLIENT:** Friedman & Bruya  
**Project:** 505055  
**Work Order:** 2505080

---

## Work Order Sample Summary

| Lab Sample ID | Client Sample ID   | Date/Time Collected | Date/Time Received |
|---------------|--------------------|---------------------|--------------------|
| 2505080-001   | Control-EFF-050225 | 05/02/2025 9:15 AM  | 05/05/2025 3:30 PM |
| 2505080-002   | 20ZVI-EFF-050225   | 05/02/2025 9:05 AM  | 05/05/2025 3:30 PM |
| 2505080-003   | 50ZVI-EFF-050225   | 05/02/2025 9:10 AM  | 05/05/2025 3:30 PM |
| 2505080-004   | INFLUENT-050225    | 05/02/2025 12:40 PM | 05/05/2025 3:30 PM |

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Friedman & Bruya

**Project:** 505055

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate

**CLIENT:** Friedman & Bruya  
**Project:** 505055

**Lab ID:** 2505080-001

**Collection Date:** 5/2/2025 9:15:00 AM

**Client Sample ID:** Control-EFF-050225

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47626

Analyst: OP

|                        |       |       |   |      |   |                     |
|------------------------|-------|-------|---|------|---|---------------------|
| Fluoride               | ND    | 0.100 |   | mg/L | 1 | 5/6/2025 6:28:00 PM |
| Chloride               | 4.42  | 0.200 |   | mg/L | 1 | 5/6/2025 6:28:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H | mg/L | 1 | 5/6/2025 6:28:00 PM |
| Bromide                | ND    | 0.600 |   | mg/L | 1 | 5/6/2025 6:28:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H | mg/L | 1 | 5/6/2025 6:28:00 PM |
| Ortho-Phosphate (as P) | 0.625 | 0.400 | H | mg/L | 1 | 5/6/2025 6:28:00 PM |
| Sulfate                | 4.60  | 1.00  |   | mg/L | 1 | 5/6/2025 6:28:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47634

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 65,200 | 60.0 |  | µg/L | 1 | 5/6/2025 6:18:00 PM |
| Magnesium | 5,560  | 50.0 |  | µg/L | 1 | 5/6/2025 6:18:00 PM |
| Potassium | 4,700  | 50.0 |  | µg/L | 1 | 5/6/2025 6:18:00 PM |
| Sodium    | 14,300 | 100  |  | µg/L | 1 | 5/6/2025 6:18:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47662

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 62,700 | 250  |  | µg/L | 1 | 5/8/2025 1:51:00 PM |
| Magnesium | 5,790  | 50.0 |  | µg/L | 1 | 5/8/2025 1:51:00 PM |
| Potassium | 4,440  | 50.0 |  | µg/L | 1 | 5/8/2025 1:51:00 PM |
| Sodium    | 14,600 | 100  |  | µg/L | 1 | 5/8/2025 1:51:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99630

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 7.16 | 0.700 |  | mg/L | 1 | 5/9/2024 3:23:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99675

Analyst: NR

|                                           |     |      |   |      |    |                       |
|-------------------------------------------|-----|------|---|------|----|-----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 174 | 25.0 | D | mg/L | 10 | 5/12/2025 11:49:00 AM |
|-------------------------------------------|-----|------|---|------|----|-----------------------|

**Salinity by SM 2520B**

Batch ID: R99660

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/12/2025 9:54:17 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99468

Analyst: JH

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 450 | 5.00 |  | mg/L | 1 | 5/5/2025 10:56:13 AM |
|------------------------|-----|------|--|------|---|----------------------|

**CLIENT:** Friedman & Bruya  
**Project:** 505055

**Lab ID:** 2505080-002

**Collection Date:** 5/2/2025 9:05:00 AM

**Client Sample ID:** 20ZVI-EFF-050225

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47626

Analyst: OP

|                        |       |       |   |      |   |                     |
|------------------------|-------|-------|---|------|---|---------------------|
| Fluoride               | 0.154 | 0.100 |   | mg/L | 1 | 5/6/2025 6:51:00 PM |
| Chloride               | 4.53  | 0.200 |   | mg/L | 1 | 5/6/2025 6:51:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H | mg/L | 1 | 5/6/2025 6:51:00 PM |
| Bromide                | ND    | 0.600 |   | mg/L | 1 | 5/6/2025 6:51:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H | mg/L | 1 | 5/6/2025 6:51:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | H | mg/L | 1 | 5/6/2025 6:51:00 PM |
| Sulfate                | 5.05  | 1.00  |   | mg/L | 1 | 5/6/2025 6:51:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47634

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 61,400 | 60.0 |  | µg/L | 1 | 5/6/2025 6:21:00 PM |
| Magnesium | 4,970  | 50.0 |  | µg/L | 1 | 5/6/2025 6:21:00 PM |
| Potassium | 4,090  | 50.0 |  | µg/L | 1 | 5/6/2025 6:21:00 PM |
| Sodium    | 14,600 | 100  |  | µg/L | 1 | 5/6/2025 6:21:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47662

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 57,000 | 250  |  | µg/L | 1 | 5/8/2025 1:54:00 PM |
| Magnesium | 5,140  | 50.0 |  | µg/L | 1 | 5/8/2025 1:54:00 PM |
| Potassium | 3,750  | 50.0 |  | µg/L | 1 | 5/8/2025 1:54:00 PM |
| Sodium    | 14,200 | 100  |  | µg/L | 1 | 5/8/2025 1:54:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99630

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 4.83 | 0.700 |  | mg/L | 1 | 5/9/2024 3:51:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99675

Analyst: NR

|                                           |     |      |   |      |    |                       |
|-------------------------------------------|-----|------|---|------|----|-----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 101 | 25.0 | D | mg/L | 10 | 5/12/2025 11:51:00 AM |
|-------------------------------------------|-----|------|---|------|----|-----------------------|

**Salinity by SM 2520B**

Batch ID: R99660

Analyst: BB

|          |    |          |  |   |   |                      |
|----------|----|----------|--|---|---|----------------------|
| Salinity | ND | 0.000100 |  | % | 1 | 5/12/2025 9:54:17 AM |
|----------|----|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99468

Analyst: JH

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 246 | 5.00 |  | mg/L | 1 | 5/5/2025 10:56:13 AM |
|------------------------|-----|------|--|------|---|----------------------|



**CLIENT:** Friedman & Bruya  
**Project:** 505055

**Lab ID:** 2505080-003

**Collection Date:** 5/2/2025 9:10:00 AM

**Client Sample ID:** 50ZVI-EFF-050225

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47626

Analyst: OP

|                        |       |       |   |      |   |                     |
|------------------------|-------|-------|---|------|---|---------------------|
| Fluoride               | 0.145 | 0.100 |   | mg/L | 1 | 5/6/2025 7:14:00 PM |
| Chloride               | 4.68  | 0.200 |   | mg/L | 1 | 5/6/2025 7:14:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H | mg/L | 1 | 5/6/2025 7:14:00 PM |
| Bromide                | ND    | 0.600 |   | mg/L | 1 | 5/6/2025 7:14:00 PM |
| Nitrate (as N)         | ND    | 0.200 | H | mg/L | 1 | 5/6/2025 7:14:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | H | mg/L | 1 | 5/6/2025 7:14:00 PM |
| Sulfate                | 4.04  | 1.00  |   | mg/L | 1 | 5/6/2025 7:14:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47634

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 62,900 | 60.0 |  | µg/L | 1 | 5/6/2025 6:24:00 PM |
| Magnesium | 4,920  | 50.0 |  | µg/L | 1 | 5/6/2025 6:24:00 PM |
| Potassium | 4,090  | 50.0 |  | µg/L | 1 | 5/6/2025 6:24:00 PM |
| Sodium    | 15,000 | 100  |  | µg/L | 1 | 5/6/2025 6:24:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47662

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 61,300 | 250  |  | µg/L | 1 | 5/8/2025 1:57:00 PM |
| Magnesium | 5,140  | 50.0 |  | µg/L | 1 | 5/8/2025 1:57:00 PM |
| Potassium | 4,000  | 50.0 |  | µg/L | 1 | 5/8/2025 1:57:00 PM |
| Sodium    | 15,600 | 100  |  | µg/L | 1 | 5/8/2025 1:57:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99630

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 3.44 | 0.700 |  | mg/L | 1 | 5/9/2024 4:20:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99675

Analyst: NR

|                                           |     |      |   |      |    |                       |
|-------------------------------------------|-----|------|---|------|----|-----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 153 | 25.0 | D | mg/L | 10 | 5/12/2025 11:52:00 AM |
|-------------------------------------------|-----|------|---|------|----|-----------------------|

**Salinity by SM 2520B**

Batch ID: R99660

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/12/2025 9:54:17 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99468

Analyst: JH

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 242 | 5.00 |  | mg/L | 1 | 5/5/2025 10:56:13 AM |
|------------------------|-----|------|--|------|---|----------------------|

**CLIENT:** Friedman & Bruya  
**Project:** 505055

**Lab ID:** 2505080-004

**Collection Date:** 5/2/2025 12:40:00 PM

**Client Sample ID:** INFLUENT-050225

**Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

**Ion Chromatography by EPA 300.0**

Batch ID: 47626

Analyst: OP

|                        |       |       |   |      |   |                     |
|------------------------|-------|-------|---|------|---|---------------------|
| Fluoride               | 0.177 | 0.100 |   | mg/L | 1 | 5/6/2025 7:37:00 PM |
| Chloride               | 3.83  | 0.200 |   | mg/L | 1 | 5/6/2025 7:37:00 PM |
| Nitrite (as N)         | ND    | 0.200 | H | mg/L | 1 | 5/6/2025 7:37:00 PM |
| Bromide                | ND    | 0.600 |   | mg/L | 1 | 5/6/2025 7:37:00 PM |
| Nitrate (as N)         | 0.588 | 0.200 | H | mg/L | 1 | 5/6/2025 7:37:00 PM |
| Ortho-Phosphate (as P) | ND    | 0.400 | H | mg/L | 1 | 5/6/2025 7:37:00 PM |
| Sulfate                | 4.09  | 1.00  |   | mg/L | 1 | 5/6/2025 7:37:00 PM |

**Dissolved Metals by EPA 6020B**

Batch ID: 47634

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 72,700 | 60.0 |  | µg/L | 1 | 5/6/2025 6:28:00 PM |
| Magnesium | 4,470  | 50.0 |  | µg/L | 1 | 5/6/2025 6:28:00 PM |
| Potassium | 3,920  | 50.0 |  | µg/L | 1 | 5/6/2025 6:28:00 PM |
| Sodium    | 12,900 | 100  |  | µg/L | 1 | 5/6/2025 6:28:00 PM |

**Total Metals by EPA 6020B**

Batch ID: 47662

Analyst: ME

|           |        |      |  |      |   |                     |
|-----------|--------|------|--|------|---|---------------------|
| Calcium   | 69,000 | 250  |  | µg/L | 1 | 5/8/2025 2:06:00 PM |
| Magnesium | 4,510  | 50.0 |  | µg/L | 1 | 5/8/2025 2:06:00 PM |
| Potassium | 3,640  | 50.0 |  | µg/L | 1 | 5/8/2025 2:06:00 PM |
| Sodium    | 12,900 | 100  |  | µg/L | 1 | 5/8/2025 2:06:00 PM |

**Total Organic Carbon by SM 5310C**

Batch ID: R99630

Analyst: SS

|                      |      |       |  |      |   |                     |
|----------------------|------|-------|--|------|---|---------------------|
| Total Organic Carbon | 4.88 | 0.700 |  | mg/L | 1 | 5/9/2024 4:38:00 AM |
|----------------------|------|-------|--|------|---|---------------------|

**Total Alkalinity by EPA 310.2**

Batch ID: R99675

Analyst: NR

|                                           |     |      |   |      |    |                       |
|-------------------------------------------|-----|------|---|------|----|-----------------------|
| Alkalinity, Total (As CaCO <sub>3</sub> ) | 129 | 25.0 | D | mg/L | 10 | 5/12/2025 11:54:00 AM |
|-------------------------------------------|-----|------|---|------|----|-----------------------|

**Salinity by SM 2520B**

Batch ID: R99660

Analyst: BB

|          |        |          |  |   |   |                      |
|----------|--------|----------|--|---|---|----------------------|
| Salinity | 0.0100 | 0.000100 |  | % | 1 | 5/12/2025 9:54:17 AM |
|----------|--------|----------|--|---|---|----------------------|

**Total Dissolved Solids by SM 2540C**

Batch ID: R99468

Analyst: JH

|                        |     |      |  |      |   |                      |
|------------------------|-----|------|--|------|---|----------------------|
| Total Dissolved Solids | 296 | 5.00 |  | mg/L | 1 | 5/5/2025 10:56:13 AM |
|------------------------|-----|------|--|------|---|----------------------|

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Total Alkalinity by EPA 310.2

|                            |        |                         |           |             |                                 |          |                             |             |      |                       |      |  |
|----------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-99675</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>5/12/2025</b> |             |      | RunNo: <b>99675</b>   |      |  |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>R99675</b> |           |             | Analysis Date: <b>5/12/2025</b> |          |                             |             |      | SeqNo: <b>2076118</b> |      |  |
| Analyte                    | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

Alkalinity, Total (As CaCO3) ND 2.50

|                             |        |                         |           |             |                                 |          |                             |             |      |                       |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>LCS-99675</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>5/12/2025</b> |             |      | RunNo: <b>99675</b>   |      |  |
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>R99675</b> |           |             | Analysis Date: <b>5/12/2025</b> |          |                             |             |      | SeqNo: <b>2076119</b> |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

Alkalinity, Total (As CaCO3) 24.1 2.50 25.00 0 96.4 79.4 136

|                                   |        |                         |           |             |                                 |          |                             |             |      |                       |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2505087-001BDUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>5/12/2025</b> |             |      | RunNo: <b>99675</b>   |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99675</b> |           |             | Analysis Date: <b>5/12/2025</b> |          |                             |             |      | SeqNo: <b>2076125</b> |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

Alkalinity, Total (As CaCO3) 4.91 2.50 3.626 30.0 20

|                                   |        |                         |           |             |                                 |          |                             |             |      |                       |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2505103-001BDUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>5/12/2025</b> |             |      | RunNo: <b>99675</b>   |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99675</b> |           |             | Analysis Date: <b>5/12/2025</b> |          |                             |             |      | SeqNo: <b>2076132</b> |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

Alkalinity, Total (As CaCO3) 17.5 2.50 16.15 8.14 20

|                                  |        |                         |           |             |                                 |          |                             |                       |      |                     |      |  |
|----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2505103-001BMS</b> |        | SampType: <b>MS</b>     |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>5/12/2025</b> |                       |      | RunNo: <b>99675</b> |      |  |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>R99675</b> |           |             | Analysis Date: <b>5/12/2025</b> |          |                             | SeqNo: <b>2076133</b> |      |                     |      |  |
| Analyte                          | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

Alkalinity, Total (As CaCO3) 26.6 2.50 10.00 16.15 104 80 120

Work Order: 2505080  
 CLIENT: Friedman & Bruya  
 Project: 505055

## QC SUMMARY REPORT

Total Alkalinity by EPA 310.2

|                                   |        |                         |           |             |                                 |          |                             |             |                       |          |      |
|-----------------------------------|--------|-------------------------|-----------|-------------|---------------------------------|----------|-----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2505103-001BMSD</b> |        | SampType: <b>MSD</b>    |           |             | Units: <b>mg/L</b>              |          | Prep Date: <b>5/12/2025</b> |             | RunNo: <b>99675</b>   |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99675</b> |           |             | Analysis Date: <b>5/12/2025</b> |          |                             |             | SeqNo: <b>2076134</b> |          |      |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit                   | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Alkalinity, Total (As CaCO3)      | 24.9   | 2.50                    | 10.00     | 16.15       | 87.8                            | 80       | 120                         | 26.57       | 6.39                  | 20       |      |

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

| Sample ID: <b>LCS-47626</b> |        | SampType: <b>LCS</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99502</b>   |      |          |      |
|-----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      |        | Batch ID: <b>47626</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072943</b> |      |          |      |
| Analyte                     | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                    | 0.482  | 0.100                  | 0.5000    | 0                  | 96.4 | 90                             | 110       |                       |      |          |      |
| Chloride                    | 0.727  | 0.200                  | 0.7500    | 0                  | 96.9 | 90                             | 110       |                       |      |          |      |
| Nitrite (as N)              | 0.720  | 0.200                  | 0.7500    | 0                  | 96.0 | 90                             | 110       |                       |      |          |      |
| Bromide                     | 2.47   | 0.600                  | 2.500     | 0                  | 98.6 | 90                             | 110       |                       |      |          |      |
| Nitrate (as N)              | 0.738  | 0.200                  | 0.7500    | 0                  | 98.4 | 90                             | 110       |                       |      |          |      |
| Ortho-Phosphate (as P)      | 1.20   | 0.400                  | 1.250     | 0                  | 95.9 | 90                             | 110       |                       |      |          |      |
| Sulfate                     | 3.66   | 1.00                   | 3.750     | 0                  | 97.7 | 90                             | 110       |                       |      |          |      |

| Sample ID: <b>MB-47626</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99502</b>   |      |          |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47626</b> |           |                    |      | Analysis Date: <b>5/5/2025</b> |           | SeqNo: <b>2072945</b> |      |          |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Fluoride                   | ND     | 0.100                  |           |                    |      |                                |           |                       |      |          |      |
| Chloride                   | ND     | 0.200                  |           |                    |      |                                |           |                       |      |          |      |
| Nitrite (as N)             | ND     | 0.200                  |           |                    |      |                                |           |                       |      |          |      |
| Bromide                    | ND     | 0.600                  |           |                    |      |                                |           |                       |      |          |      |
| Nitrate (as N)             | ND     | 0.200                  |           |                    |      |                                |           |                       |      |          |      |
| Ortho-Phosphate (as P)     | ND     | 0.400                  |           |                    |      |                                |           |                       |      |          |      |
| Sulfate                    | ND     | 1.00                   |           |                    |      |                                |           |                       |      |          |      |

| Sample ID: <b>2504673-001BDUP</b> |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/5/2025</b>     |           | RunNo: <b>99502</b>   |        |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|--------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47626</b> |           |                    |      | Analysis Date: <b>5/6/2025</b> |           | SeqNo: <b>2072951</b> |        |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD   | RPDLimit | Qual |
| Fluoride                          | ND     | 0.100                  |           |                    |      |                                |           | 0                     |        | 20       |      |
| Chloride                          | 33.9   | 0.200                  |           |                    |      |                                |           | 33.87                 | 0.0413 | 20       | E    |
| Nitrite (as N)                    | ND     | 0.200                  |           |                    |      |                                |           | 0                     |        | 20       |      |
| Bromide                           | ND     | 0.600                  |           |                    |      |                                |           | 0                     |        | 20       |      |
| Nitrate (as N)                    | 1.04   | 0.200                  |           |                    |      |                                |           | 1.044                 | 0.192  | 20       |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |                    |      |                                |           | 0                     |        | 20       |      |
| Sulfate                           | 7.21   | 1.00                   |           |                    |      |                                |           | 7.243                 | 0.415  | 20       |      |

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

|                                   |        |                        |           |             |                                |          |                            |                       |      |                     |      |  |
|-----------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2504673-001BDUP</b> |        | SampType: <b>DUP</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99502</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47626</b> |           |             | Analysis Date: <b>5/6/2025</b> |          |                            | SeqNo: <b>2072951</b> |      |                     |      |  |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

| Sample ID: <b>2504673-001BMS</b> |        | SampType: <b>MS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/5/2025</b> |             | RunNo: <b>99502</b>   |          |      |
|----------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|----------|------|
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47626</b> |           |             | Analysis Date: <b>5/6/2025</b> |          |                            |             | SeqNo: <b>2072952</b> |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                         | 0.537  | 0.100                  | 0.5000    | 0.05000     | 97.4                           | 80       | 120                        |             |                       |          |      |
| Chloride                         | 34.1   | 0.200                  | 0.7500    | 33.87       | 32.1                           | 80       | 120                        |             |                       |          | ES   |
| Nitrite (as N)                   | 0.741  | 0.200                  | 0.7500    | 0           | 98.8                           | 80       | 120                        |             |                       |          |      |
| Bromide                          | 2.57   | 0.600                  | 2.500     | 0           | 103                            | 80       | 120                        |             |                       |          |      |
| Nitrate (as N)                   | 1.85   | 0.200                  | 0.7500    | 1.044       | 108                            | 80       | 120                        |             |                       |          |      |
| Ortho-Phosphate (as P)           | 1.27   | 0.400                  | 1.250     | 0           | 102                            | 80       | 120                        |             |                       |          |      |
| Sulfate                          | 11.3   | 1.00                   | 3.750     | 7.243       | 109                            | 80       | 120                        |             |                       |          |      |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                   |        |                        |           |                                |      |                            |           |             |                       |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------------------|------|----------------------------|-----------|-------------|-----------------------|----------|------|
| Sample ID: <b>2504673-001BMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>mg/L</b>             |      | Prep Date: <b>5/5/2025</b> |           |             | RunNo: <b>99502</b>   |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47626</b> |           | Analysis Date: <b>5/6/2025</b> |      |                            |           |             | SeqNo: <b>2072953</b> |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val                    | %REC | LowLimit                   | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Fluoride                          | 0.545  | 0.100                  | 0.5000    | 0.05000                        | 99.0 | 80                         | 120       | 0.5370      | 1.48                  | 20       | ES   |
| Chloride                          | 34.1   | 0.200                  | 0.7500    | 33.87                          | 35.5 | 80                         | 120       | 34.11       | 0.0733                | 20       |      |
| Nitrite (as N)                    | 0.752  | 0.200                  | 0.7500    | 0                              | 100  | 80                         | 120       | 0.7410      | 1.47                  | 20       |      |
| Bromide                           | 2.61   | 0.600                  | 2.500     | 0                              | 104  | 80                         | 120       | 2.573       | 1.39                  | 20       |      |
| Nitrate (as N)                    | 1.86   | 0.200                  | 0.7500    | 1.044                          | 109  | 80                         | 120       | 1.852       | 0.646                 | 20       |      |
| Ortho-Phosphate (as P)            | 1.34   | 0.400                  | 1.250     | 0                              | 108  | 80                         | 120       | 1.271       | 5.66                  | 20       |      |
| Sulfate                           | 11.4   | 1.00                   | 3.750     | 7.243                          | 112  | 80                         | 120       | 11.34       | 0.896                 | 20       |      |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Ion Chromatography by EPA 300.0

| Sample ID: <b>2505087-001BDUP</b> |        | SampType: <b>DUP</b>   |           | Units: <b>mg/L</b>             |      | Prep Date: <b>5/6/2025</b> |                       |             | RunNo: <b>99502</b> |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------------------|------|----------------------------|-----------------------|-------------|---------------------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47626</b> |           | Analysis Date: <b>5/6/2025</b> |      |                            | SeqNo: <b>2074417</b> |             |                     |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val                    | %REC | LowLimit                   | HighLimit             | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Fluoride                          | 0.123  | 0.100                  |           |                                |      |                            |                       | 0.1240      | 0.810               | 20       |      |
| Chloride                          | 1.21   | 0.200                  |           |                                |      |                            |                       | 1.203       | 0.828               | 20       |      |
| Nitrite (as N)                    | ND     | 0.200                  |           |                                |      |                            |                       | 0           |                     | 20       |      |
| Bromide                           | ND     | 0.600                  |           |                                |      |                            |                       | 0           |                     | 20       |      |
| Nitrate (as N)                    | ND     | 0.200                  |           |                                |      |                            |                       | 0           |                     | 20       |      |
| Ortho-Phosphate (as P)            | ND     | 0.400                  |           |                                |      |                            |                       | 0           |                     | 20       |      |
| Sulfate                           | ND     | 1.00                   |           |                                |      |                            |                       | 0           |                     | 20       |      |

|                                  |        |                        |           |             |                                |          |                            |                       |      |                     |      |  |
|----------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>2505087-001BMS</b> |        | SampType: <b>MS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/6/2025</b> |                       |      | RunNo: <b>99502</b> |      |  |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47626</b> |           |             | Analysis Date: <b>5/6/2025</b> |          |                            | SeqNo: <b>2074418</b> |      |                     |      |  |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |
| Fluoride                         | 0.625  | 0.100                  | 0.5000    | 0.1240      | 100                            | 80       | 120                        |                       |      |                     |      |  |
| Chloride                         | 2.01   | 0.200                  | 0.7500    | 1.203       | 108                            | 80       | 120                        |                       |      |                     |      |  |
| Nitrite (as N)                   | 0.732  | 0.200                  | 0.7500    | 0           | 97.6                           | 80       | 120                        |                       |      |                     |      |  |
| Bromide                          | 2.52   | 0.600                  | 2.500     | 0           | 101                            | 80       | 120                        |                       |      |                     |      |  |
| Nitrate (as N)                   | 0.752  | 0.200                  | 0.7500    | 0           | 100                            | 80       | 120                        |                       |      |                     |      |  |
| Ortho-Phosphate (as P)           | 1.13   | 0.400                  | 1.250     | 0           | 90.2                           | 80       | 120                        |                       |      |                     |      |  |
| Sulfate                          | 4.13   | 1.00                   | 3.750     | 0.4050      | 99.4                           | 80       | 120                        |                       |      |                     |      |  |

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Salinity by SM 2520B

|                             |  |                         |          |           |             |      |                             |                                 |             |                     |                       |      |
|-----------------------------|--|-------------------------|----------|-----------|-------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-R99660</b> |  | SampType: <b>MBLK</b>   |          |           | Units: %    |      | Prep Date: <b>5/12/2025</b> |                                 |             | RunNo: <b>99660</b> |                       |      |
| Client ID: <b>MBLKW</b>     |  | Batch ID: <b>R99660</b> |          |           |             |      |                             | Analysis Date: <b>5/12/2025</b> |             |                     | SeqNo: <b>2075744</b> |      |
| Analyte                     |  | Result                  | RL       | SPK value | SPK Ref Val | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Salinity                    |  | ND                      | 0.000100 |           |             |      |                             |                                 |             |                     |                       |      |

|                              |  |                         |          |           |                     |      |                             |                                 |             |                     |                       |      |
|------------------------------|--|-------------------------|----------|-----------|---------------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>LCS-R99660</b> |  | SampType: <b>LCS</b>    |          |           | Units: <b>µS/cm</b> |      | Prep Date: <b>5/12/2025</b> |                                 |             | RunNo: <b>99660</b> |                       |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R99660</b> |          |           |                     |      |                             | Analysis Date: <b>5/12/2025</b> |             |                     | SeqNo: <b>2075745</b> |      |
| Analyte                      |  | Result                  | RL       | SPK value | SPK Ref Val         | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Salinity                     |  | 1,000                   | 0.000100 | 1,000     | 0                   | 100  | 79.1                        | 119.1                           |             |                     |                       |      |

|                                      |  |                         |          |           |             |      |                             |                                 |             |                     |                       |      |
|--------------------------------------|--|-------------------------|----------|-----------|-------------|------|-----------------------------|---------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2505080-001ADUP</b>    |  | SampType: <b>DUP</b>    |          |           | Units: %    |      | Prep Date: <b>5/12/2025</b> |                                 |             | RunNo: <b>99660</b> |                       |      |
| Client ID: <b>Control-EFF-050225</b> |  | Batch ID: <b>R99660</b> |          |           |             |      |                             | Analysis Date: <b>5/12/2025</b> |             |                     | SeqNo: <b>2075747</b> |      |
| Analyte                              |  | Result                  | RL       | SPK value | SPK Ref Val | %REC | LowLimit                    | HighLimit                       | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Salinity                             |  | 0.0100                  | 0.000100 |           |             |      |                             |                                 | 0.01000     | 0                   | 30                    |      |



**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Total Dissolved Solids by SM 2540C

|                             |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|-----------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>MB-R99468</b> |        | SampType: <b>MBLK</b>   |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/5/2025</b> |             |      | RunNo: <b>99468</b>   |      |  |
| Client ID: <b>MBLKW</b>     |        | Batch ID: <b>R99468</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            |             |      | SeqNo: <b>2072391</b> |      |  |
| Analyte                     | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |

|                        |    |      |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|
| Total Dissolved Solids | ND | 5.00 |  |  |  |  |  |  |  |  |  |
|------------------------|----|------|--|--|--|--|--|--|--|--|--|

|                              |        |                         |           |             |                                |          |                            |                       |      |                     |      |  |
|------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-----------------------|------|---------------------|------|--|
| Sample ID: <b>LCS-R99468</b> |        | SampType: <b>LCS</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/5/2025</b> |                       |      | RunNo: <b>99468</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R99468</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            | SeqNo: <b>2072392</b> |      |                     |      |  |
| Analyte                      | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val           | %RPD | RPDLimit            | Qual |  |

|                        |     |      |       |   |      |    |     |  |  |  |  |
|------------------------|-----|------|-------|---|------|----|-----|--|--|--|--|
| Total Dissolved Solids | 286 | 5.00 | 300.0 | 0 | 95.3 | 65 | 135 |  |  |  |  |
|------------------------|-----|------|-------|---|------|----|-----|--|--|--|--|

|                                   |        |                         |           |             |                                |          |                            |             |                       |          |      |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2505053-001BDUP</b> |        | SampType: <b>DUP</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/5/2025</b> |             | RunNo: <b>99468</b>   |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99468</b> |           |             | Analysis Date: <b>5/5/2025</b> |          |                            |             | SeqNo: <b>2072448</b> |          |      |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit | Qual |

|                        |       |      |  |  |  |  |  |       |      |    |  |
|------------------------|-------|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 9,430 | 5.00 |  |  |  |  |  | 9,036 | 4.25 | 30 |  |
|------------------------|-------|------|--|--|--|--|--|-------|------|----|--|

|                            |        |                  |           |                         |      |                     |                |             |              |          |      |
|----------------------------|--------|------------------|-----------|-------------------------|------|---------------------|----------------|-------------|--------------|----------|------|
| Sample ID: 2505053-002BDUP |        | SampType: DUP    |           | Units: mg/L             |      | Prep Date: 5/5/2025 |                |             | RunNo: 99468 |          |      |
| Client ID: BATCH           |        | Batch ID: R99468 |           | Analysis Date: 5/5/2025 |      |                     | SeqNo: 2072450 |             |              |          |      |
| Analyte                    | Result | RL               | SPK value | SPK Ref Val             | %REC | LowLimit            | HighLimit      | RPD Ref Val | %RPD         | RPDLimit | Qual |

|                        |       |      |  |  |  |  |  |       |      |    |  |
|------------------------|-------|------|--|--|--|--|--|-------|------|----|--|
| Total Dissolved Solids | 6,590 | 5.00 |  |  |  |  |  | 6,684 | 1.42 | 30 |  |
|------------------------|-------|------|--|--|--|--|--|-------|------|----|--|

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                         |  |                         |       |           |                    |      |                            |                                |             |                     |                       |      |
|-------------------------|--|-------------------------|-------|-----------|--------------------|------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB</b>    |  | SampType: <b>MBLK</b>   |       |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/8/2024</b> |                                |             | RunNo: <b>99630</b> |                       |      |
| Client ID: <b>MBLKW</b> |  | Batch ID: <b>R99630</b> |       |           |                    |      |                            | Analysis Date: <b>5/8/2024</b> |             |                     | SeqNo: <b>2075132</b> |      |
| Analyte                 |  | Result                  | RL    | SPK value | SPK Ref Val        | %REC | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Total Organic Carbon    |  | ND                      | 0.700 |           |                    |      |                            |                                |             |                     |                       |      |

|                        |  |                         |       |           |                    |      |                            |                                |             |                     |                       |      |
|------------------------|--|-------------------------|-------|-----------|--------------------|------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>LCS</b>  |  | SampType: <b>LCS</b>    |       |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/8/2024</b> |                                |             | RunNo: <b>99630</b> |                       |      |
| Client ID: <b>LCSW</b> |  | Batch ID: <b>R99630</b> |       |           |                    |      |                            | Analysis Date: <b>5/8/2024</b> |             |                     | SeqNo: <b>2075133</b> |      |
| Analyte                |  | Result                  | RL    | SPK value | SPK Ref Val        | %REC | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Total Organic Carbon   |  | 21.6                    | 0.700 | 25.00     | 0                  | 86.4 | 79.6                       | 120                            |             |                     |                       |      |

|                                   |  |                         |       |           |                    |      |                            |                                |             |                     |                       |      |
|-----------------------------------|--|-------------------------|-------|-----------|--------------------|------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2505035-002BDUP</b> |  | SampType: <b>DUP</b>    |       |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/8/2024</b> |                                |             | RunNo: <b>99630</b> |                       |      |
| Client ID: <b>BATCH</b>           |  | Batch ID: <b>R99630</b> |       |           |                    |      |                            | Analysis Date: <b>5/8/2024</b> |             |                     | SeqNo: <b>2075136</b> |      |
| Analyte                           |  | Result                  | RL    | SPK value | SPK Ref Val        | %REC | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Total Organic Carbon              |  | 3.52                    | 0.700 |           |                    |      |                            |                                | 3.529       | 0.398               | 15                    |      |

|                                                                                  |  |                         |       |           |                    |      |                            |                                |             |                     |                       |      |
|----------------------------------------------------------------------------------|--|-------------------------|-------|-----------|--------------------|------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2505035-003BMS</b>                                                 |  | SampType: <b>MS</b>     |       |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/8/2024</b> |                                |             | RunNo: <b>99630</b> |                       |      |
| Client ID: <b>BATCH</b>                                                          |  | Batch ID: <b>R99630</b> |       |           |                    |      |                            | Analysis Date: <b>5/8/2024</b> |             |                     | SeqNo: <b>2075138</b> |      |
| Analyte                                                                          |  | Result                  | RL    | SPK value | SPK Ref Val        | %REC | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Total Organic Carbon                                                             |  | 23.0                    | 0.700 | 25.00     | 2.942              | 80.4 | 85                         | 115                            |             |                     |                       | S    |
| <b>NOTES:</b><br>S - Outlying spike recoveries were associated with this sample. |  |                         |       |           |                    |      |                            |                                |             |                     |                       |      |

|                                   |  |                         |       |           |                    |      |                            |                                |             |                     |                       |      |
|-----------------------------------|--|-------------------------|-------|-----------|--------------------|------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>2505036-002BDUP</b> |  | SampType: <b>DUP</b>    |       |           | Units: <b>mg/L</b> |      | Prep Date: <b>5/8/2024</b> |                                |             | RunNo: <b>99630</b> |                       |      |
| Client ID: <b>BATCH</b>           |  | Batch ID: <b>R99630</b> |       |           |                    |      |                            | Analysis Date: <b>5/8/2024</b> |             |                     | SeqNo: <b>2075144</b> |      |
| Analyte                           |  | Result                  | RL    | SPK value | SPK Ref Val        | %REC | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Total Organic Carbon              |  | 6.17                    | 0.700 |           |                    |      |                            |                                | 6.144       | 0.422               | 15                    |      |

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Total Organic Carbon by SM 5310C

|                                  |        |                         |           |             |                                |          |                            |             |      |                       |      |  |
|----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|------|-----------------------|------|--|
| Sample ID: <b>2505036-002BMS</b> |        | SampType: <b>MS</b>     |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/8/2024</b> |             |      | RunNo: <b>99630</b>   |      |  |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>R99630</b> |           |             | Analysis Date: <b>5/8/2024</b> |          |                            |             |      | SeqNo: <b>2075145</b> |      |  |
| Analyte                          | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD | RPDLimit              | Qual |  |
| Total Organic Carbon             | 25.4   | 0.700                   | 25.00     | 6.144       | 76.9                           | 85       | 115                        |             |      |                       | S    |  |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

|                                   |        |                         |           |             |                                |          |                            |             |                       |                     |      |  |
|-----------------------------------|--------|-------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|---------------------|------|--|
| Sample ID: <b>2505036-002BMSD</b> |        | SampType: <b>MSD</b>    |           |             | Units: <b>mg/L</b>             |          | Prep Date: <b>5/8/2024</b> |             |                       | RunNo: <b>99630</b> |      |  |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>R99630</b> |           |             | Analysis Date: <b>5/8/2024</b> |          |                            |             | SeqNo: <b>2075146</b> |                     |      |  |
| Analyte                           | Result | RL                      | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit            | Qual |  |
| Total Organic Carbon              | 25.2   | 0.700                   | 25.00     | 6.144       | 76.3                           | 85       | 115                        | 25.36       | 0.561                 | 15                  | S    |  |

**NOTES:**

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

|                            |                        |                    |           |             |                                |          |           |             |                       |          |      |
|----------------------------|------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-------------|-----------------------|----------|------|
| Sample ID: <b>MB-47634</b> | SampType: <b>MBLK</b>  | Units: <b>µg/L</b> |           |             | Prep Date: <b>5/6/2025</b>     |          |           |             | RunNo: <b>99543</b>   |          |      |
| Client ID: <b>MBLKW</b>    | Batch ID: <b>47634</b> |                    |           |             | Analysis Date: <b>5/6/2025</b> |          |           |             | SeqNo: <b>2073444</b> |          |      |
| Analyte                    | Result                 | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                    | ND                     | 60.0               |           |             |                                |          |           |             |                       |          |      |
| Magnesium                  | ND                     | 50.0               |           |             |                                |          |           |             |                       |          |      |
| Potassium                  | ND                     | 50.0               |           |             |                                |          |           |             |                       |          |      |
| Sodium                     | ND                     | 100                |           |             |                                |          |           |             |                       |          |      |

|                             |                        |                    |           |             |                                |          |           |                       |      |          |      |
|-----------------------------|------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Sample ID: <b>LCS-47634</b> | SampType: <b>LCS</b>   | Units: <b>µg/L</b> |           |             | Prep Date: <b>5/6/2025</b>     |          |           | RunNo: <b>99543</b>   |      |          |      |
| Client ID: <b>LCSW</b>      | Batch ID: <b>47634</b> |                    |           |             | Analysis Date: <b>5/6/2025</b> |          |           | SeqNo: <b>2073445</b> |      |          |      |
| Analyte                     | Result                 | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                     | 983                    | 60.0               | 1,000     | 0           | 98.3                           | 80       | 120       |                       |      |          |      |
| Magnesium                   | 966                    | 50.0               | 1,000     | 0           | 96.6                           | 80       | 120       |                       |      |          |      |
| Potassium                   | 1,000                  | 50.0               | 1,000     | 0           | 100                            | 80       | 120       |                       |      |          |      |
| Sodium                      | 1,030                  | 100                | 1,000     | 0           | 103                            | 80       | 120       |                       |      |          |      |

| Sample ID: <b>2505001-001DMS</b> | SampType: <b>MS</b>    | Units: <b>µg/L</b> |           |             |       | Prep Date: <b>5/6/2025</b>     |           |             | RunNo: <b>99543</b>   |          |      |
|----------------------------------|------------------------|--------------------|-----------|-------------|-------|--------------------------------|-----------|-------------|-----------------------|----------|------|
| Client ID: <b>BATCH</b>          | Batch ID: <b>47634</b> |                    |           |             |       | Analysis Date: <b>5/6/2025</b> |           |             | SeqNo: <b>2073447</b> |          |      |
| Analyte                          | Result                 | RL                 | SPK value | SPK Ref Val | %REC  | LowLimit                       | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                          | 36,300                 | 60.0               | 1,000     | 36,890      | -63.9 | 75                             | 125       |             |                       |          | ES   |
| Magnesium                        | 33,300                 | 50.0               | 1,000     | 33,560      | -28.2 | 75                             | 125       |             |                       |          | ES   |
| Potassium                        | 1,960                  | 50.0               | 1,000     | 1,010       | 94.7  | 75                             | 125       |             |                       |          |      |
| Sodium                           | 48,700                 | 100                | 1,000     | 49,540      | -79.8 | 75                             | 125       |             |                       |          | ES   |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                   |        |                        |           |                                |       |                            |           |             |                       |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------------------|-------|----------------------------|-----------|-------------|-----------------------|----------|------|
| Sample ID: <b>2505001-001DMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b>             |       | Prep Date: <b>5/6/2025</b> |           |             | RunNo: <b>99543</b>   |          |      |
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47634</b> |           | Analysis Date: <b>5/6/2025</b> |       |                            |           |             | SeqNo: <b>2073449</b> |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val                    | %REC  | LowLimit                   | HighLimit | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                           | 36,700 | 60.0                   | 1,000     | 36,890                         | -22.6 | 75                         | 125       | 36,260      | 1.13                  | 20       | ES   |
| Magnesium                         | 33,500 | 50.0                   | 1,000     | 33,560                         | -4.89 | 75                         | 125       | 33,280      | 0.699                 | 20       | ES   |

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

### Dissolved Metals by EPA 6020B

| Sample ID: <b>2505001-001DMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |       | Prep Date: <b>5/6/2025</b>     |           | RunNo: <b>99543</b>   |       |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|-------|--------------------------------|-----------|-----------------------|-------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47634</b> |           |                    |       | Analysis Date: <b>5/6/2025</b> |           | SeqNo: <b>2073449</b> |       |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC  | LowLimit                       | HighLimit | RPD Ref Val           | %RPD  | RPDLimit | Qual |
| Potassium                         | 2,010  | 50.0                   | 1,000     | 1,010              | 99.7  | 75                             | 125       | 1,957                 | 2.51  | 20       |      |
| Sodium                            | 48,900 | 100                    | 1,000     | 49,540             | -64.4 | 75                             | 125       | 48,740                | 0.316 | 20       | ES   |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

Total Metals by EPA 6020B

|                            |        |                        |           |                    |      |                            |                                |             |                     |                       |      |
|----------------------------|--------|------------------------|-----------|--------------------|------|----------------------------|--------------------------------|-------------|---------------------|-----------------------|------|
| Sample ID: <b>MB-47662</b> |        | SampType: <b>MBLK</b>  |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/8/2025</b> |                                |             | RunNo: <b>99612</b> |                       |      |
| Client ID: <b>MBLKW</b>    |        | Batch ID: <b>47662</b> |           |                    |      |                            | Analysis Date: <b>5/8/2025</b> |             |                     | SeqNo: <b>2074791</b> |      |
| Analyte                    | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                   | HighLimit                      | RPD Ref Val | %RPD                | RPDLimit              | Qual |
| Calcium                    | ND     | 250                    |           |                    |      |                            |                                |             |                     |                       |      |
| Magnesium                  | ND     | 50.0                   |           |                    |      |                            |                                |             |                     |                       |      |
| Potassium                  | ND     | 50.0                   |           |                    |      |                            |                                |             |                     |                       |      |
| Sodium                     | ND     | 100                    |           |                    |      |                            |                                |             |                     |                       |      |

| Sample ID: <b>LCS-47662</b> | SampType: <b>LCS</b>   | Units: <b>µg/L</b> |           |             | Prep Date: <b>5/8/2025</b>     |          |           | RunNo: <b>99612</b>   |      |          |      |
|-----------------------------|------------------------|--------------------|-----------|-------------|--------------------------------|----------|-----------|-----------------------|------|----------|------|
| Client ID: <b>LCSW</b>      | Batch ID: <b>47662</b> |                    |           |             | Analysis Date: <b>5/8/2025</b> |          |           | SeqNo: <b>2074792</b> |      |          |      |
| Analyte                     | Result                 | RL                 | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Calcium                     | 972                    | 250                | 1,000     | 0           | 97.2                           | 80       | 120       |                       |      |          |      |
| Magnesium                   | 1,040                  | 50.0               | 1,000     | 0           | 104                            | 80       | 120       |                       |      |          |      |
| Potassium                   | 1,010                  | 50.0               | 1,000     | 0           | 101                            | 80       | 120       |                       |      |          |      |
| Sodium                      | 1,050                  | 100                | 1,000     | 0           | 105                            | 80       | 120       |                       |      |          |      |

|                                  |        |                        |           |             |                                |          |                            |             |                       |          |      |
|----------------------------------|--------|------------------------|-----------|-------------|--------------------------------|----------|----------------------------|-------------|-----------------------|----------|------|
| Sample ID: <b>2505090-001BMS</b> |        | SampType: <b>MS</b>    |           |             | Units: <b>µg/L</b>             |          | Prep Date: <b>5/8/2025</b> |             | RunNo: <b>99612</b>   |          |      |
| Client ID: <b>BATCH</b>          |        | Batch ID: <b>47662</b> |           |             | Analysis Date: <b>5/8/2025</b> |          |                            |             | SeqNo: <b>2074794</b> |          |      |
| Analyte                          | Result | RL                     | SPK value | SPK Ref Val | %REC                           | LowLimit | HighLimit                  | RPD Ref Val | %RPD                  | RPDLimit | Qual |
| Calcium                          | 25,300 | 2,500                  | 1,000     | 24,980      | 33.2                           | 75       | 125                        |             |                       |          | DS   |
| Magnesium                        | 72,900 | 500                    | 1,000     | 72,530      | 35.3                           | 75       | 125                        |             |                       |          | DES  |
| Potassium                        | 3,780  | 500                    | 1,000     | 2,925       | 85.0                           | 75       | 125                        |             |                       |          | D    |
| Sodium                           | 12,600 | 1,000                  | 1,000     | 11,780      | 84.8                           | 75       | 125                        |             |                       |          | D    |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

|                                   |                        |       |           |             |                                |                            |           |                       |                     |          |      |
|-----------------------------------|------------------------|-------|-----------|-------------|--------------------------------|----------------------------|-----------|-----------------------|---------------------|----------|------|
| Sample ID: <b>2505090-001BMSD</b> | SampType: <b>MSD</b>   |       |           |             | Units: <b>µg/L</b>             | Prep Date: <b>5/8/2025</b> |           |                       | RunNo: <b>99612</b> |          |      |
| Client ID: <b>BATCH</b>           | Batch ID: <b>47662</b> |       |           |             | Analysis Date: <b>5/8/2025</b> |                            |           | SeqNo: <b>2074796</b> |                     |          |      |
| Analyte                           | Result                 | RL    | SPK value | SPK Ref Val | %REC                           | LowLimit                   | HighLimit | RPD Ref Val           | %RPD                | RPDLimit | Qual |
| Calcium                           | 26,500                 | 2,500 | 1,000     | 24,980      | 150                            | 75                         | 125       | 25,310                | 4.50                | 20       | DS   |
| Magnesium                         | 75,100                 | 500   | 1,000     | 72,530      | 253                            | 75                         | 125       | 72,880                | 2.94                | 20       | DES  |

**Work Order:** 2505080  
**CLIENT:** Friedman & Bruya  
**Project:** 505055

## QC SUMMARY REPORT

Total Metals by EPA 6020B

| Sample ID: <b>2505090-001BMSD</b> |        | SampType: <b>MSD</b>   |           | Units: <b>µg/L</b> |      | Prep Date: <b>5/8/2025</b>     |           | RunNo: <b>99612</b>   |      |          |      |
|-----------------------------------|--------|------------------------|-----------|--------------------|------|--------------------------------|-----------|-----------------------|------|----------|------|
| Client ID: <b>BATCH</b>           |        | Batch ID: <b>47662</b> |           |                    |      | Analysis Date: <b>5/8/2025</b> |           | SeqNo: <b>2074796</b> |      |          |      |
| Analyte                           | Result | RL                     | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val           | %RPD | RPDLimit | Qual |
| Potassium                         | 3,920  | 500                    | 1,000     | 2,925              | 99.7 | 75                             | 125       | 3,776                 | 3.80 | 20       | D    |
| Sodium                            | 13,100 | 1,000                  | 1,000     | 11,780             | 134  | 75                             | 125       | 12,620                | 3.82 | 20       | DS   |

**NOTES:**

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Client Name: FB

Work Order Number: 2505080

Logged by: Morgan Wilson

Date Received: 5/5/2025 3:30:00 PM

## Chain of Custody

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

## Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☐ No ☒

## Special Handling (if applicable)

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

Person Notified: Michael Erdahl Date: 5/6/2025

By Whom: Morgan Wilson Via: ☒ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: Anions OOH, Plan to Proceed per Historical for "ZVI" project

Client Instructions:

17. Additional remarks:

## Item Information

| Item # | Temp °C |
|--------|---------|
| Sample | 5.1     |

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



