2023 Annual Groundwater Monitoring and Corrective Action Report - Waste Disposal Area

NIPSCO LLC R. M. Schahfer Generating Station

Prepared Pursuant to 40 CFR §257.90(e) and Corresponding Regulations under 329 Indiana Administrative Code 10-9-1

Submitted to:

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January 31, 2024

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1.0 INTRODUCTION

On behalf of Northern Indiana Public Service Company LLC (NIPSCO), WSP USA Inc. (WSP) prepared this 2023 Annual Groundwater Monitoring and Corrective Action Report (2023 Annual Report) for the Rollin M. Schahfer Generating Station (RMSGS, Schahfer) coal combustion residuals (CCR) surface impoundment Waste Disposal Area (WDA, the CCR Unit) located at 2723 E 1500 N, Wheatfield, Jasper County, Indiana (Latitude 41° 12' 36" and Longitude 87° 01' 48", see Figure 1). As shown in Figure 2, the WDA is an approximately 80-acre impoundment located in the southwest portion of the RMSGS facility. WSP prepared the 2023 Annual Report in accordance with 40 Code of Federal Regulations (CFR) Parts 257 and 261, “Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule” (CCR Rule), as amended, and corresponding regulations under 329 Indiana Administrative Code (IAC) 10-9-1.

The CCR Unit is currently in Assessment Monitoring pursuant to 40 CFR §257.95. Routine monitoring activities performed during the reporting period include inspection of wells for integrity and security, measurement of groundwater levels prior to sample collection to assess groundwater flow direction, and collection of groundwater samples for laboratory analysis.

In conformance with the applicable requirements of 40 CFR §257.90(e)(1) through (5) and corresponding State of Indiana requirements, the 2023 Annual Report:

- Documents the status of the groundwater monitoring and corrective action program
- Provides figures showing the CCR Unit, monitoring well locations, and groundwater flow direction(s)
- Summarizes key CCR Rule groundwater activities completed during calendar year 2023
- Includes CCR Rule groundwater monitoring data obtained in calendar year 2023
- Describes any problems encountered during the monitoring activities
- Discusses actions taken to resolve the problems, if applicable
- Projects key activities for the upcoming year.

2.0 GROUNDWATER MONITORING AND CORRECTIVE ACTION PROGRAM - OVERVIEW OF CURRENT STATUS

Starting in 2016 following the installation of a 40 CFR §257.91-compliant groundwater monitoring system (Table 1) and throughout calendar year 2017, WSP collected background groundwater samples and performed Detection Monitoring at the CCR Unit pursuant to the requirements of 40 CFR §257.93-94. Due to the identification of statistically significant increases (SSIs) in January 2018, NIPSCO established an Assessment Monitoring program in April 2018 pursuant to the requirements of 40 CFR §257.95. In 2018, WSP performed the first and second Assessment Monitoring events. Following the first Assessment Monitoring event, including verification sampling, NIPSCO posted a notification to the publicly accessible website of detections of 40 CFR Part 257 Appendix IV parameters at concentrations above applicable groundwater protection standards (GWPS) downgradient of the WDA. WSP prepared an alternative source demonstration (ASD) indicating that the detections of Appendix IV parameters downgradient of the WDA are not due to a release from the WDA. WSP performed the subsequent monitoring events including:

- Third and fourth Assessment Monitoring events in 2019
- Fifth and sixth Assessment Monitoring events in 2020
- Seventh and eighth Assessment Monitoring events in 2021
- Ninth and tenth Assessment Monitoring events in 2022
- Eleventh and twelfth Assessment Monitoring events in 2023

The eleventh and twelfth Assessment Monitoring events were completed in April/May and September/October 2023. The groundwater elevations recorded during the April/May and September/October events are provided in Table 2, and the groundwater elevation contours are presented in Figures 3 and 4, respectively. The sampling dates, number of groundwater samples collected from each background and downgradient well, and the purpose of sampling associated with the eleventh and twelfth Assessment Monitoring events are provided in Table 3. The 2023 analytical results are presented in Table 4. The WDA began and ended the current annual reporting period in Assessment Monitoring pursuant to 40 CFR §257.95. Appendix IV constituents at statistically significant levels (SSLs) identified in 2023 include molybdenum and lithium in groundwater samples collected from well GAMW-51B molybdenum in well GAMW-60B, and arsenic in well GAMW-44.

Pursuant to 40 CFR §257.94, in May 2023, a qualified Indiana-licensed professional engineer recertified the ASD indicating that the SSLs for molybdenum and lithium were not due to a release from the WDA. In November 2023, a new ASD indicating that in addition to the previously identified molybdenum and lithium SSLs, the arsenic SSL was not due to a release from the WDA was prepared and certified by a qualified Indiana-licensed professional engineer; therefore, the CCR Unit remained in Assessment Monitoring. Based upon groundwater monitoring results collected pursuant to the CCR Rule to date, no corrective action program requirements as outlined in 40 CFR §257.96-98 have either been triggered or implemented at this CCR Unit.

2.1 Key Actions Completed - 2023

NIPSCO completed the following key actions relative to CCR Rule groundwater monitoring at the WDA during calendar year 2023:

- Preparation of the of 2022 Groundwater Monitoring and Corrective Action Annual Report in January 2023 (2022 Annual Report, WSP 2023) (40 CFR §257.90(e))
- Evaluation of the results of the tenth Assessment Monitoring event in February 2023 (40 CFR §257.95)
- Notification that constituents in 40 CFR Part 257 Appendix IV exceeded the groundwater protection standard (GWPS) in March 2023 (40 CFR §257.95(g))
- Performance of the eleventh Assessment Monitoring event in April/May 2023 (40 CFR §257.95)
- Recertification of the ASD in May 2023 (40 CFR §257.95(g))
- Evaluation of the results of the eleventh Assessment Monitoring event in August 2023 (40 CFR §257.95)
- Notification that constituents in 40 CFR Part 257 Appendix IV exceeded the GWPS in September 2023 (40 CFR §257.95(g))
- Performance of the twelfth Assessment Monitoring event in September/October 2023 (40 CFR §257.95)

- Certification of the revised groundwater monitoring well network in November 2023 (40 CFR §257.91(f))
- Recertification of the ASD in November 2023 (40 CFR §257.95(g))

2.2 Monitoring System Modifications

WSP modified the groundwater monitoring system to include an additional Assessment Monitoring well (GAMW-77) and one additional piezometer (GAMW-78) west of the WDA along the western property boundary in November 2023. GAMW-77 and GAMW-78 were installed to further assess groundwater conditions and flow direction at the property boundary northwest of the WDA. Monitoring well GAMW-77 was sampled in November 2023. Attached Table 1 provides a summary of the well rationale/purpose and date of installation. An overview of the modified groundwater monitoring network is provided in the embedded table below.

Background Monitoring Wells	Downgradient Monitoring Wells	Assessment Monitoring Wells
GAMW-03, GAMW-03B, GAMW-68, and GAMW-68B	GAMW-01, GAMW-01B, GAMW-12, GAMW-12B, GAMW-13, GAMW-13B, GAMW-14, and GAMW-14B	GAMW-42, GAMW-42B, GAMW-42C, GAMW-43, GAMW-43B, GAMW-44, GAMW-44B, GAMW-51, GAMW-51B, GAMW-57, GAMW-57B, GAMW-58, GAMW-58B, GAMW-59, GAMW-59B, GAMW-60, GAMW-60B, and GAMW-77

WSP installed, developed, and surveyed the wells in accordance with the CCR Groundwater Monitoring Program Implementation Manual prepared by Golder in October 2017.

2.3 Background Monitoring (2016 to 2017)

Per the requirements of 40 CFR §257.94, WSP collected eight independent background groundwater samples from each background and downgradient well between July 2016 and August 2017. WSP used the results of the background monitoring phase to develop appropriate, statistically valid background values for each constituent/monitoring well. WSP submitted the samples to a contract laboratory, in accordance with chain of custody and quality assurance/quality control procedures, for analysis of 40 CFR Part 257 Appendix III and Appendix IV constituents. In addition, WSP personnel measured field water quality parameters including specific conductance, temperature, dissolved oxygen, turbidity, oxidation-reduction potential, and pH. The background data set was included in the 2017 CCR Annual Groundwater Monitoring and Corrective Action Report, dated January 31, 2018 (2017 Annual Report, Golder 2018).

WSP performed a periodic update of background datasets, which includes incorporation of additional background data, to improve statistical power and accuracy by providing a more conservative estimate of the true background populations. The CCR Rule Groundwater Monitoring Program Implementation Manual (GMPIM, Golder 2017) allows for the statistical limits to be updated after four to eight new measurements are available (i.e., every two to four years of semi-annual monitoring). WSP incorporated the new data into the background dataset and updated the GWPS in both March 2020 and September 2022.

2.4 Detection Monitoring

WSP performed the first Detection Monitoring event in October 2017, followed by a statistical evaluation and data analysis in January 2018. WSP collected groundwater samples from the CCR Unit background and downgradient monitoring wells for analysis of Appendix III constituents per 40 CFR §257.94 and included the results in the 2017 Annual Report. Following receipt and validation of laboratory results, WSP evaluated the results of the first

Detection Monitoring sampling event to compare the concentration of 40 CFR Part 257 Appendix III constituents relative to facility background concentrations. Using Sanitas™ software, WSP pooled the background data to calculate prediction limits and compared the October 2017 results to the calculated prediction limits to identify SSIs. Due to the identification of SSIs, NIPSCO established an Assessment Monitoring program in April 2018.

2.5 Assessment Monitoring

WSP performed the first Assessment Monitoring event (i.e., Assessment and Verification sampling) in March and April 2018, followed by a statistical evaluation and data analysis in August 2018. In March 2018, WSP collected groundwater samples from each background and downgradient monitoring well for analysis of Appendix IV constituents per 40 CFR §257.95. In April 2018, WSP collected groundwater samples from the downgradient monitoring well locations for analysis of Appendix III and detected Appendix IV constituents per 40 CFR §257.95. In August 2018, WSP developed GWPS against which to compare the Assessment Monitoring results. Following receipt and validation of laboratory results, WSP evaluated the 40 CFR Part 257 Appendix IV constituent results relative to CCR Unit-specific GWPS (Table 5). At the time of the statistical evaluation, the GWPS was the higher value of either the Maximum Contaminant Level (MCL) or the CCR Unit-specific background concentration for each analyte calculated using a tolerance/prediction limit procedure in accordance with 40 CFR §257.95(h)(2). WSP assessed the groundwater results obtained from the downgradient monitoring wells by comparing the lower confidence limit (LCL) to the CCR Unit-specific GWPS for each Appendix IV analyte at each well. If the LCL exceeds the GWPS, there is statistical evidence of an SSL. WSP determined that SSLs existed for the WDA (molybdenum in GAMW-01, GAMW-13B, and GAMW-14B) but identified an alternative natural source for the elevated levels of molybdenum detected in downgradient monitoring wells and prepared an ASD. A qualified Indiana-licensed professional engineer certified the ASD in November 2018 (Appendix A of the 2018 CCR Annual Groundwater Monitoring and Corrective Action Report, dated January 31, 2019 (2018 Annual Report, Golder 2019)).

WSP performed additional Assessment Monitoring events at the WDA by collecting groundwater samples from each background and downgradient monitoring well per 40 CFR §257.95 including:

- Second Assessment Monitoring Event – October 2018: WSP performed the second Assessment Monitoring event by collecting groundwater samples for analysis of Appendix III and Appendix IV constituents. WSP performed the statistical evaluation of the analytical results of the second Assessment Monitoring event in February 2019. WSP identified SSLs for arsenic (GAMW-01) and cobalt (GAMW-14). In May 2019, WSP prepared, and a qualified Indiana-licensed professional engineer certified an ASD demonstrating that the arsenic and cobalt concentrations observed in the downgradient monitoring wells were due to natural variation and not a release from the WDA (Appendix A of the 2019 Annual Report, Golder 2020).
- Third Assessment Monitoring Event – April 2019: WSP performed the third Assessment Monitoring event by collecting groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and Appendix IV constituents per 40 CFR §257.95. WSP performed the statistical evaluation of the analytical results of the third Assessment Monitoring sampling event in August 2019. The results confirmed the SSLs for arsenic (GAMW-01) and cobalt (GAMW-14). A qualified-licensed professional engineer recertified the ASD in November 2019 (Appendix B of the 2019 Annual Report).

WSP collected groundwater samples from the following property boundary Assessment Monitoring wells (see Figure 2):

- GAMW-42/42B, GAMW-43/43B, and GAMW-44/44B installed in July 2018 were sampled in March, April, June, July, August, October, and November 2019
- GAMW-42C, GAMW-57/57B, and GAMW-58/58B installed in June 2019 were sampled in July, August, October, and November 2019.

SSLs were not identified in groundwater samples collected from these property boundary wells. The boundary wells have been included in the routine semi-annual sampling since 2020.

- Fourth Assessment Monitoring Event – November 2019: WSP performed the fourth Assessment Monitoring event by collecting groundwater samples for analysis of Appendix III and detected Appendix IV constituents. WSP performed the statistical evaluation of the analytical results of the fourth Assessment Monitoring event in March 2020. WSP identified an SSL for molybdenum in well GAMW-51B. In June 2020, WSP prepared, and a qualified Indiana-licensed professional engineer certified, an ASD demonstrating that the SSL for molybdenum and observed lithium levels above the GWPS in GAMW-51B were not due to a release from the WDA (Appendix A of the 2020 Annual Report, Golder 2021).
- Fifth Assessment Monitoring Event – April/May 2020: WSP performed the fifth Assessment Monitoring event by collecting groundwater samples for analysis of Appendix III and Appendix IV constituents. WSP performed the statistical evaluation of the analytical results of the fifth Assessment Monitoring event in September 2020. WSP identified SSLs for molybdenum and lithium in well GAMW-51B. As these results were consistent with the previous Assessment Monitoring event, a qualified Indiana-licensed professional engineer recertified the ASD in December 2020 (Appendix B of the 2020 Annual Report, Golder 2021).
- Sixth Assessment Monitoring Event – October 2020: WSP performed the sixth Assessment Monitoring event in October 2020 by collecting groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and detected Appendix IV constituents per 40 CFR §257.95. WSP performed the statistical evaluation of the analytical results from the sixth Assessment Monitoring sampling event in February 2021 and identified SSLs for molybdenum and lithium in well GAMW-51B and molybdenum in GAMW-60B. As described in the 2019 Annual Report (Golder 2020), GAMW-60B was installed downgradient of GAMW-51/51B in 2019 to further assess the nature and extent of groundwater quality further downgradient of the WDA. The October 2020 Assessment Monitoring event was the fourth round of sampling at this location, and therefore, was the first event for which SSLs were calculated. As these results are consistent with the primary lines of evidence presented in the June 2020 ASD, a qualified Indiana-licensed professional engineer recertified the ASD in May 2021 (Appendix A of the 2021 Annual Report). The results from the fifth and sixth Assessment Monitoring events are included in the 2020 Annual Report (Golder 2021).
- Seventh Assessment Monitoring Event – April 2021: WSP performed the seventh Assessment Monitoring event by collecting groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and Appendix IV constituents per 40 CFR §257.95. WSP performed the statistical evaluation of the analytical results of the seventh Assessment Monitoring event in August 2021 and identified SSLs for molybdenum and lithium in well GAMW-51B and molybdenum in GAMW-60B. As these results were consistent with the previous Assessment Monitoring event, a qualified Indiana-licensed professional engineer recertified the ASD in November 2021 (Appendix B of the 2021 Annual Report).

- Eighth Assessment Monitoring Event – September 2021: WSP performed the eighth Assessment Monitoring event by collecting groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and detected Appendix IV constituents per 40 CFR §257.95. WSP performed the statistical evaluation of the analytical results from the eighth Assessment Monitoring event in January 2022. The results confirmed the SSLs for molybdenum and lithium in well GAMW-51B and molybdenum in GAMW-60B. A qualified Indiana-licensed professional engineer recertified the ASD in April 2022. The results from the seventh and eighth Assessment Monitoring events are included in the 2021 Annual Report (Golder 2022).
- Ninth Assessment Monitoring Event – May/June 2022: WSP performed the ninth Assessment Monitoring event by collecting groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and Appendix IV constituents per 40 CFR §257.95. WSP performed the statistical evaluation of the analytical results from the ninth Assessment Monitoring event in September 2022. The results confirmed the SSLs for molybdenum and lithium in well GAMW-51B and molybdenum in GAMW-60B. A qualified Indiana-licensed professional engineer recertified the ASD in December 2022.
- Tenth Assessment Monitoring Event – October/November 2022: WSP performed the tenth Assessment Monitoring event by collecting groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and Appendix IV constituents per 40 CFR §257.95. WSP performed the statistical evaluation of the analytical results from the tenth Assessment Monitoring event in February 2023. The results confirmed the SSLs for molybdenum and lithium in well GAMW-51B and molybdenum in GAMW-60B. A qualified Indiana-licensed professional engineer recertified the ASD in May 2023 (Appendix A). The results from the ninth and tenth Assessment Monitoring events are included in the 2022 Annual Report (WSP 2023).
- Eleventh Assessment Monitoring Event – April/May 2023: WSP performed the eleventh Assessment Monitoring event by collecting groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and Appendix IV constituents per 40 CFR §257.95. WSP performed the statistical evaluation of the analytical results from the eleventh Assessment Monitoring event in August 2023. The results confirmed the SSLs for molybdenum and lithium in well GAMW-51B and molybdenum in GAMW-60B. The results also indicated a new SSL for arsenic at GAMW-44. WSP prepared, and a qualified Indiana-licensed professional engineer certified, an ASD demonstrating that the SSL for arsenic observed at levels above the GWPS in GAMW-44 were not due to a release from the WDA (Appendix B). Furthermore, NIPSCO installed an additional monitoring well GAMW-77 downgradient of and closer to the property boundary than GAMW-44 to further evaluate downgradient groundwater quality.
- Twelfth Assessment Monitoring Event – September/October 2023: WSP performed the twelfth Assessment Monitoring event by collecting groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and Appendix IV constituents per 40 CFR §257.95. WSP will perform the statistical evaluation of the analytical results from the twelfth Assessment Monitoring event in February 2024.

The 2023 analytical laboratory reports are provided in Appendix C and Appendix D for the April/May and September/October 2023 results, respectively. The data usability assessment report is provided in Appendix E and the results from the statistical evaluations completed in February and August 2023 are attached in Appendix F.

2.6 Statistical Evaluation

Methods used during this statistical evaluation are described in the GMPIM (Golder 2017), were certified by a qualified engineer in October 2017, and are summarized in this section. WSP utilized the Sanitas™ statistical analysis software package to complete this statistical evaluation.

2.6.1 Data Evaluation

After each monitoring event, WSP assessed the analytical data for outliers, anomalies, and trends that might be an indication of a sampling or analytical error. Outliers and anomalies are generally defined as inconsistently large or small values that can occur because of sampling, laboratory, transportation, or transcription errors, or even by chance alone. Significant trends may indicate natural geochemical variability, a source of systematic error, influence of an upgradient/off-site source, or an actual occurrence of CCR Unit influence upon groundwater quality. Appropriate statistical methods are used to remove outliers from the database and manage trends with detrending routines, prior to the calculation of statistical limits. To assess the data for outliers, anomalies, and trends, WSP assessed the data using time vs. concentration graphs, and statistical routines included in the Sanitas™ statistical analysis software package. No new outliers were identified or removed from the data set since the 2022 Annual Report.

WSP evaluated the background data set for trends using Sanitas™ software (Appendix F). WSP will continue to monitor all trends and apply detrending routines, if applicable, before using these data to calculate GWPS. WSP identified the following 40 CFR Part 257 Appendix IV parameter trends in background monitoring wells:

- Arsenic concentrations detected in groundwater samples collected from GAMW-03B show a deceasing trend and arsenic has never been detected above the MCL in this well. No detrending routines are required.
- Beryllium concentrations detected in groundwater samples collected from GAMW-03 and GAMW-03B show a decreasing trend, beryllium has never been detected above the laboratory reporting limit in these wells, and all background beryllium results are below the MCL, therefore, the GWPS is equal to the MCL. No detrending routines are required.
- Cadmium concentrations detected in groundwater samples collected from GAMW-03 and GAMW-03B show a decreasing trend, cadmium has never been detected above the laboratory reporting limit in these wells, and all background cadmium results are below the MCL, therefore, the GWPS is equal to the MCL. No detrending routines are required.
- Chromium concentrations detected in groundwater samples collected from GAMW-03 show a decreasing trend, chromium has never been detected above the laboratory reporting limit in this well, and all background chromium results are below the MCL, therefore, the GWPS is equal to the MCL. No detrending routines are required.
- Lead concentrations detected in groundwater samples collected from GAMW-03 and GAMW-03B show a decreasing trend, lead has never been detected above the laboratory reporting limit in this well, and all background lead results are below the health-based standard, therefore the GWPS is equal to the health-based standard. No detrending routines are required.
- Molybdenum concentrations detected in groundwater samples collected from GAMW-03B show an increasing trend, all background results are below the health-based standard, therefore, the GWPS is equal to the health-based standard. No detrending routines are required.

- Thallium concentrations detected in groundwater samples collected from GAMW-03 and GAMW-03B show a decreasing trend, thallium has never been detected above the laboratory reporting limit in these wells, and all background thallium results are below the MCL, therefore, the GWPS is equal to the MCL. No detrending routines are required.

2.6.2 Development of Groundwater Protection Standard

Pursuant to CFR §257.95(h), GWPS were developed for each of the Appendix IV analytes. The GWPS is set equal to the MCL or health-based standard or a limit based on background data, whichever is greater, as described in 40 CFR §257.95(h)(2). The CCR Rule and *Unified Guidance* provide two acceptable approaches for establishing a background-based GWPS (unless all values are non-detect, in which the background-based GWPS is set equal to the laboratory reporting limit (RL)): tolerance interval approach or prediction interval approach.

If the background dataset is normally or transformed normally distributed, the GMPIM states that the tolerance interval approach is used. The background-based GWPS will be based on a 95 percent coverage/95 percent confidence tolerance interval. If the background data are non-normal (even after transformation) than a non-parametric prediction interval approach is used.

As described in Section 2.3, WSP performed a periodic update of background datasets, which includes incorporation of additional background data, to improve statistical power and accuracy by providing a more conservative estimate of the true background populations. The GMPIM allows for the statistical limits to be updated after four to eight new measurements are available (i.e., every two to four years of semi-annual monitoring). WSP incorporated the new data into the background dataset and updated the GWPS in both March 2020 and September 2022 (see Table 5). The September 2022 GWPS include the first four data points collected from GAMW-68 and GAMW-68B. A summary of the GWPS is provided in Table 5. The corresponding tolerance limits and/or prediction limits are provided in Appendix F.

2.6.3 Results of Appendix IV Downgradient Statistical Comparisons

An interwell statistical evaluation was used to identify SSLs. An interwell evaluation compares the most recent values from downgradient compliance wells to a background dataset composed of upgradient well data. Because the CCR Unit is in Assessment Monitoring, no statistical evaluations were conducted on Appendix III (Detection Monitoring) constituents.

For Assessment Monitoring the Unified Guidance recommends the confidence interval method to evaluate for potential exceedances or SSLs. Using confidence intervals, SSLs are identified by comparing the calculated confidence interval against the GWPS. A confidence interval statistically defines the upper and lower bounds of a specified population within a stipulated level of confidence. If the lower confidence limit exceeds the GWPS, there is statistical evidence that an SSL has been triggered.

Based on the comparisons outlined above, the results of the statistical analysis completed in February 2023 and August 2023 identify SSLs for molybdenum and lithium in well GAMW-51B and molybdenum in GAMW-60B. In August 2023, trend analysis indicate that there is a statistically significant increasing trend for arsenic in well GAMW-44 and the lower confidence band is above the GWPS, resulting in an SSL for this location. The calculated confidence intervals and confidence band for arsenic at GAMW-44 is provided in Appendix F.

2.7 Problems Encountered and Follow-Up Corrective Actions

WSP encountered elevated turbidity levels (i.e., >5 nephelometric turbidity units - NTUs) during the 2023 Assessment Monitoring events including:

- Eleventh Assessment Monitoring event (April/May 2023); WSP collected groundwater samples from monitoring wells GAMW-12, GAMW-42C, GAMW-44, GAMW-51, and GAMW-68 at turbidity levels of 6.96, 168.66, 12.51, 6.39, and 7.89 NTUs, respectively.
- Twelfth Assessment Monitoring event (September/October 2023); WSP collected the groundwater sample from monitoring wells GAMW-03B, GAMW-42C, and GAMW-51 at turbidity levels of 6.80, 5.81, and 5.91 NTUs, respectively.

According to the CCR Groundwater Monitoring Program Implementation Manual (Golder 2017), groundwater samples are to be collected once groundwater has achieved a turbidity level below 5 NTUs. Due to time constraints in the field, WSP purged groundwater from the wells for a minimum of two hours and collected groundwater samples when turbidity appeared to stabilize (e.g., no downward or upward trend over three consecutive readings five minutes apart). Evaluation of the analytical results from these wells suggests that the slightly elevated turbidity levels had no significant effect on the representativeness of groundwater quality. During future monitoring events, WSP will purge groundwater for the lesser of two hours or five well volumes and use professional judgement to assess whether the purge water is representative of groundwater to be sampled. If an acceptable turbidity level cannot be achieved within a reasonable timeframe (i.e., three hours, maximum), WSP will redevelop the affected monitoring well(s) prior to the next sampling event.

3.0 KEY ACTIVITIES PROJECTED FOR 2024

During calendar year 2024, NIPSCO anticipates conducting the following key CCR Rule groundwater monitoring activities for the WDA:

- Prepare and submit the appropriate notifications according to the CCR Rule
- Continue semi-annual Assessment Monitoring groundwater sampling per CCR Rule requirements
- Inspect and maintain the monitoring system including wells, pumps, and equipment.

4.0 REFERENCES

Golder Associates, “2017 Annual Groundwater Monitoring and Corrective Action Report - Waste Disposal Area, NIPSCO R. M. Schafer Generating Station”, January 31, 2018.

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Tables

Table 1: Monitoring Well Network
CCR Unit Schahfer Waste Disposal Area
NIPSCO LLC Rollin M. Schahfer Generating Station
Wheatfield, Indiana

CCR Unit	Well Purpose	Monitoring Well ID	Installation Date	Decommission Date (If Applicable)	Basis For Action
Waste Disposal Area	Background Monitoring Well	GAMW-03	6/27/2015	-	Installed for groundwater quality monitoring[1]
		GAMW-03B	5/24/2016	-	
		GAMW-68	8/27/2020	-	
		GAMW-68B	8/27/2020	-	
	Downgradient Monitoring Well	GAMW-01	6/26/2015	-	Installed for groundwater quality monitoring[1]
		GAMW-12	5/23/2016	-	
		GAMW-13	5/24/2016	-	
		GAMW-13B	5/23/2016	-	
		GAMW-14	5/23/2016	-	
		GAMW-14B	5/23/2016	-	
		GAMW-01B	7/31/2018	-	Installed to characterize the nature and extent of a potential release[2]
		GAMW-12B	7/31/2018	-	
		GAMW-51	7/25/2018	-	
		GAMW-51B	7/25/2018	-	
		GAMW-42	7/24/2018	-	Installed to monitor groundwater quality at the property boundary[3]
		GAMW-42B	7/24/2018	-	
		GAMW-42C	6/8/2019	-	
		GAMW-43	5/16/2018	-	
		GAMW-43B	5/16/2018	-	
		GAMW-44	5/16/2018	-	
		GAMW-44B	5/16/2018	-	
		GAMW-57	6/7/2019	-	
		GAMW-57B	6/7/2019	-	
		GAMW-58	6/6/2019	-	
		GAMW-58B	6/6/2019	-	
		GAMW-59	6/8/2019	-	Installed to characterize the nature and extent of a potential release[2]
		GAMW-59B	6/6/2019	-	
		GAMW-60	6/8/2019	-	
		GAMW-60B	6/4/2019	-	
		GAMW-77	11/10/2023	-	Installed to monitor groundwater quality at the property boundary[3]

1) Per 40 CFR §257.93, WSP collected eight rounds of background data prior to October 17, 2017, excluding wells GAMW-68 and GAMW-68B.
2) Per 40 CFR §257.95(g)(1)(i) Rule requirements, WSP collected additional data to further characterize the nature and extent of potential groundwater impacts.
3) Per 40 CFR §257.95(g)(1)(iii), WSP collected data to monitor groundwater quality in the direction of flow at the property boundary.

Prepared by: GRD
Checked by: DFSC
Reviewed by: MAH

Table 2: 2023 Groundwater Elevations
CCR Unit Schahfer Waste Disposal Area
NIPSCO LLC Rollin M. Schahfer Generating Station
Wheatfield, Indiana

Monitoring Well Location	Northing (ft)	Easting (ft)	Top of Casing Elevation (ft-NAVD88)	Screen Interval		Well Diameter (in)	Stickup (ft)	2023-04-11		2023-09-06	
				Top (ft-bgs)	Bottom (ft-bgs)			Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)
AT-02	2171314.76	2971144.02	672.57	18	38	6	1.96	7.14	665.43	22.50	650.07
AT-01	2171895.27	2971270.60	669.04	23.5	33.5	6	2.94	6.05	662.99	9.75	659.29
DAVIS South Culvert	2168387.49	2971366.64	662.83	-	-	-	-	1.75	661.08	2.70	660.13
GAMW01	2169108.22	2968518.99	668.23	5	15	2	3.29	8.38	659.85	9.35	658.88
GAMW01B	2169107.37	2968525.20	667.87	26	36	2	2.67	7.92	659.95	8.92	658.95
GAMW02	2168720.88	2970548.50	669.57	5	15	2	3.49	8.30	661.27	9.45	660.12
GAMW03	2169821.53	2971646.34	668.20	5	15	2	3.06	4.49	663.71	9.50	658.70
GAMW03B	2169813.71	2971647.06	668.16	25	35	2	2.87	4.47	663.69	9.52	658.64
GAMW04	2170947.82	2971503.36	669.24	5	15	2	3.43	5.78	663.43	NM	
GAMW05	2170870.00	2968721.92	669.75	7	17	2	3.06	9.32	660.43	11.35	658.40
GAMW06	2172320.06	2969128.60	670.81	5	15	2	3.31	9.62	661.19	11.92	658.89
GAMW07	2172327.53	2970256.34	669.94	5	15	2	3.39	8.90	661.04	NM	
GAMW07B	2172318.59	2970251.36	669.39	30	40	2	2.56	8.28	661.11	10.27	659.12
GAMW08	2173335.20	2970799.89	669.76	5	15	2	3.81	8.75	661.01	11.18	658.58
GAMW08B	2173334.70	2970790.59	668.47	26	36	2	2.55	7.52	660.95	9.95	658.52
GAMW09	2172509.36	2971291.29	668.56	5	15	2	3.46	6.73	661.83	9.92	658.64
GAMW09B	2172502.57	2971291.67	668.29	25	35	2	2.94	6.36	661.93	9.56	658.73
GAMW10	2173531.42	2973046.25	667.83	5	15	2	3.84	8.58	659.25	10.16	657.67
GAMW11	2174218.62	2972678.78	667.17	5	15	2	3.57	8.44	658.73	9.52	657.65
GAMW12	2169576.84	2968314.48	667.29	5	15	2	2.94	7.93	659.36	8.80	658.49
GAMW12B	2169580.32	2968309.54	666.81	25	35	2	2.58	7.34	659.47	8.20	658.61
GAMW13	2170059.98	2968285.46	667.24	5	15	2	2.93	7.93	659.31	8.90	658.34
GAMW13B	2170055.88	2968285.69	667.12	25	35	2	2.89	7.83	659.29	8.80	658.32
GAMW14	2170532.49	2968467.96	667.96	5	15	2	3.20	8.16	659.80	9.08	658.88
GAMW14B	2170534.66	2968471.60	667.94	25	35	2	3.32	8.11	659.83	9.68	658.26
GAMW15	2172753.76	2970258.35	668.25	5	15	2	3.24	7.52	660.73	9.35	658.90
GAMW15B	2172749.68	2970258.92	668.05	25	35	2	2.91	7.32	660.73	9.20	658.85
GAMW16BR	2173189.53	2970399.45	667.32	30	40	2	2.93	6.45	660.87	9.20	658.12
GAMW16R	2173189.51	2970396.68	667.17	10	20	2	2.82	6.32	660.85	9.05	658.12
GAMW17	2173164.44	2970944.07	671.93	5	15	2	3.12	10.92	661.01	13.42	658.51
GAMW17B	2173164.84	2970947.44	670.60	25	35	2	1.74	9.60	661.00	12.10	658.50
GAMW18	2171919.78	2971272.41	669.07	5	15	2	3.03	6.79	662.28	10.35	658.72
GAMW18B	2171910.00	2971272.53	668.47	25	35	2	2.53	5.86	662.61	9.62	658.85
GAMW20	2171579.62	2974761.60	667.21	6	16	2	2.60	8.78	658.43	9.60	657.61
GAMW20B	2171579.95	2974757.37	667.40	22.5	32.5	2	2.92	8.86	658.54	9.56	657.84

Table 2: 2023 Groundwater Elevations
CCR Unit Schahfer Waste Disposal Area
NIPSCO LLC Rollin M. Schahfer Generating Station
Wheatfield, Indiana

Monitoring Well Location	Northing (ft)	Easting (ft)	Top of Casing Elevation (ft-NAVD88)	Screen Interval		Well Diameter (in)	Stickup (ft)	2023-04-11		2023-09-06	
				Top (ft-bgs)	Bottom (ft-bgs)			Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)
GAMW24	2171048.72	2974868.68	665.39	6	16	2	3.30	5.78	659.61	7.58	657.81
GAMW24B	2171050.67	2974866.89	665.33	21	31	2	3.20	5.60	659.73	7.40	657.93
GAMW25	2171586.03	2973730.34	668.05	6	16	2	2.79	8.65	659.40	10.06	657.99
GAMW25B	2171588.49	2973730.66	667.95	25	35	2	2.69	8.58	659.37	9.98	657.97
GAMW26	2172243.83	2973744.80	667.71	6	16	2	2.82	9.18	658.53	9.95	657.76
GAMW26B	2172245.87	2973744.66	667.75	23	33	2	2.84	9.19	658.56	9.95	657.80
GAMW27	2172624.68	2973958.32	665.51	6	16	2	2.83	7.10	658.41	7.92	657.59
GAMW27B	2172624.95	2973960.21	665.44	21	31	2	2.79	7.02	658.42	7.85	657.59
GAMW29	2173593.41	2975290.48	669.49	6	16	2	2.91	10.73	658.76	NM[1]	
GAMW29B	2173594.69	2975292.88	669.45	26	36	2	2.81	10.55	658.90	NM[1]	
GAMW30	2173602.07	2974396.02	666.92	6	16	2	2.65	8.22	658.70	NM[1]	
GAMW30B	2173601.53	2974399.23	666.88	22	32	2	2.61	8.16	658.72	NM[1]	
GAMW31	2174043.93	2974076.43	665.40	6	16	2	2.72	6.78	658.62	8.30	657.10
GAMW31B	2174041.68	2974075.83	665.41	20	30	2	2.72	6.75	658.66	8.30	657.11
GAMW32	2174364.59	2974353.14	668.08	8	18	2	2.64	9.32	658.76	10.98	657.10
GAMW32B	2174364.70	2974350.09	668.28	24	34	2	2.75	9.50	658.78	11.15	657.13
GAMW33	2174015.71	2976811.15	665.29	6	16	2	2.66	6.58	658.71	8.08	657.21
GAMW33B	2174015.85	2976814.01	665.29	21	31	2	2.86	6.50	658.79	8.02	657.27
GAMW34	2173123.80	2976637.58	664.82	4	16	2	3.04	5.85	658.97	7.30	657.52
GAMW34B	2173126.75	2976637.84	664.84	19	29	2	3.19	5.85	658.99	7.30	657.54
GAMW35B	2172046.64	2976576.97	664.62	14	24	2	2.84	5.18	659.44	6.95	657.67
GAMW36	2174145.14	2977866.72	665.00	6	16	2	2.76	5.65	659.35	8.12	656.88
GAMW36B	2174142.51	2977866.95	665.07	24.5	34.5	2	2.72	5.65	659.42	8.12	656.95
GAMW37B	2173307.54	2977852.54	665.32	15	25	2	2.64	5.80	659.52	7.82	657.50
GAMW38	2173106.90	2974209.73	663.29	5	15	2	2.36	4.63	658.66	NM[1]	
GAMW38B	2173104.46	2974206.66	663.31	19.5	29.5	2	2.50	4.70	658.61	NM[1]	
GAMW39	2173099.95	2974491.99	663.53	5	15	2	2.49	4.76	658.77	NM[1]	
GAMW39B	2173103.21	2974490.70	663.49	19.5	29.5	2	2.53	4.77	658.72	NM[1]	
GAMW40	2173336.21	2974705.88	666.56	5	15	2	2.45	7.70	658.86	NM[1]	
GAMW40B	2173336.05	2974709.34	666.40	21.5	31.5	2	2.35	7.60	658.80	NM[1]	
GAMW41	2173334.04	2975014.68	662.43	5	15	2	2.34	3.44	658.99	NM[1]	
GAMW41B	2173337.10	2975019.42	662.17	17	27	2	2.09	3.24	658.93	NM[1]	
GAMW42	2170186.91	2967937.39	665.80	5	15	2	2.68	6.40	659.40	7.62	658.18
GAMW42B	2170182.55	2967943.17	665.66	26	36	2	2.51	6.28	659.38	7.50	658.16

Table 2: 2023 Groundwater Elevations
CCR Unit Schahfer Waste Disposal Area
NIPSCO LLC Rollin M. Schahfer Generating Station
Wheatfield, Indiana

Monitoring Well Location	Northing (ft)	Easting (ft)	Top of Casing Elevation (ft-NAVD88)	Screen Interval		Well Diameter (in)	Stickup (ft)	2023-04-11		2023-09-06	
				Top (ft-bgs)	Bottom (ft-bgs)			Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)
GAMW42C	2170207.09	2967974.69	666.30	40	50	2	3.09	6.92	659.38	8.11	658.19
GAMW43	2170878.63	2967926.92	665.59	5	15	2	2.45	6.10	659.49	7.62	657.97
GAMW43B	2170876.91	2967926.66	665.53	16	26	2	2.41	6.00	659.53	7.55	657.98
GAMW44	2171240.72	2967833.09	666.31	5	15	2	2.20	6.75	659.56	8.40	657.91
GAMW44B	2171239.72	2967834.35	666.25	26	36	2	2.14	6.75	659.50	8.34	657.91
GAMW45	2178836.29	2971287.41	664.50	5	15	2	2.29	7.23	657.27	10.05	654.45
GAMW45B	2178836.27	2971289.23	664.32	28	38	2	2.09	7.03	657.29	10.05	654.27
GAMW46	2178839.03	2973531.39	664.80	5	15	2	2.81	6.58	658.22	NM	
GAMW46B	2178838.97	2973532.88	664.79	22	32	2	2.81	6.58	658.21	9.88	654.91
GAMW48	2178605.72	2975279.25	663.38	5	15	2	2.57	5.88	657.50	8.93	654.45
GAMW48B	2178606.46	2975283.24	663.33	20	30	2	2.89	5.85	657.48	8.90	654.43
GAMW49	2176111.21	2976600.94	664.64	5	15	2	2.64	5.32	659.32	8.40	656.24
GAMW49B	2176115.76	2976600.61	664.52	23	33	2	2.40	5.12	659.40	8.20	656.32
GAMW50	2174957.14	2977953.35	665.15	5	15	2	2.65	5.94	659.23	8.58	656.57
GAMW50B	2174961.01	2977953.31	664.88	21	31	2	2.62	5.65	659.25	8.30	656.58
GAMW51	2171145.47	2968512.12	668.77	5	15	2	2.62	8.61	659.96	10.38	658.39
GAMW51B	2171147.99	2968515.78	668.79	27	37	2	2.76	8.38	660.41	10.26	658.53
GAMW52	2175030.90	2970079.13	666.79	5	15	2	2.72	7.48	659.31	8.84	657.95
GAMW52B	2175032.00	2970073.23	666.90	27	37	2	2.40	7.57	659.33	8.94	657.96
GAMW53	2174535.34	2971036.47	667.24	5	15	2	2.56	7.90	659.34	9.35	657.89
GAMW53B	2174536.54	2971032.60	667.29	26	36	2	2.67	7.89	659.40	9.33	657.96
GAMW54	2174080.28	2971911.36	666.37	5	15	2	2.50	6.34	660.03	8.22	658.15
GAMW54B	2174081.64	2971906.90	666.47	22	32	2	2.49	6.54	659.93	8.40	658.07
GAMW55B	2173632.34	2972222.72	667.53	25	35	2	2.35	7.37	660.16	9.34	658.19
GAMW55R	2173631.97	2972230.54	667.73	5	15	2	2.37	7.53	660.20	9.52	658.21
GAMW56	2173343.43	2972428.30	667.91	5	15	2	2.48	7.62	660.29	9.72	658.19
GAMW56B	2173343.23	2972423.77	667.82	25	35	2	2.49	7.51	660.31	9.60	658.22
GAMW57	2171592.09	2967729.66	672.99	5	15	2	2.52	13.38	659.61	15.10	657.89
GAMW57B	2171592.28	2967726.72	672.90	35	45	2	2.44	13.28	659.62	15.00	657.90
GAMW58	2171902.75	2967863.88	667.56	5	15	2	2.52	8.42	659.14	9.58	657.98
GAMW58B	2171900.81	2967867.00	667.61	25	35	2	2.73	8.45	659.16	9.62	657.99
GAMW59	2171317.51	2968668.03	668.51	5	15	2	2.58	7.92	660.59	10.08	658.43
GAMW59B	2171313.72	2968668.36	668.57	30	40	2	2.61	7.96	660.61	10.12	658.45
GAMW60	2171552.61	2968698.92	667.52	5	15	2	2.43	6.99	660.53	9.20	658.32
GAMW60B	2171549.04	2968699.96	667.52	30	40	2	2.46	6.81	660.71	9.00	658.52
GAMW63B	2171969.16	2971860.97	668.76	23	33	2	2.45	6.59	662.17	10.02	658.74

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Wheatfield, Indiana

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				Top (ft-bgs)	Bottom (ft-bgs)			Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)
GAMW64B	2171789.81	2972174.66	666.85	21	31	2	2.43	5.01	661.84	8.22	658.63
GAMW65B	2173229.48	2968253.82	668.67	25	35	2	3.22	8.88	659.79	10.34	658.33
GAMW66B	2173363.62	2967853.20	672.99	34	44	2	3.79	14.00	658.99	14.90	658.09
GAMW67B	2174213.30	2967604.35	667.97	30.5	40.5	2	3.32	9.10	658.87	10.38	657.59
GAMW68	2970328.36	2168555.54	665.53	7	17	2	-0.40	4.35	661.18	5.68	659.85
GAMW68B	2970325.08	2168557.42	665.72	24.5	34.5	2	-0.28	4.53	661.19	5.90	659.82
GAMW72	2173514.76	2973920.43	666.93	5	15	2	2.82	NM[2]		NM	
GAMW72B	2173511.12	2973920.44	666.88	21	31	2	2.68	NM[2]		9.06	657.82
GAMW73	2173737.29	2974225.62	664.26	5	15	2	2.62	NM[2]		6.58	657.68
GAMW73B	2173740.94	2974228.37	664.31	18	18	2	2.65	NM[2]		6.60	657.71
GAMW74	2173737.57	2974539.26	664.44	5	15	2	2.82	NM[2]		6.75	657.69
GAMW74B	2173737.58	2974542.01	664.21	18	18	2	2.59	NM[2]		6.50	657.71
GAPIEZ03	2168915.06	2970509.00	683.54	20	25	2	3.13	8.64	674.90	7.70	675.84
GAPIEZ04	2170737.64	2968871.61	683.28	21	26	2	3.21	8.34	674.94	7.43	675.85
GAPIEZ05	2172113.64	2969141.22	684.73	17	22	2	3.56	4.59	680.14	7.70	677.03
GAPIEZ06	2172181.53	2970343.74	672.79	20	25	2	3.50	8.03	664.76	11.90	660.89
GAPIEZ07	2174443.92	2973071.62	668.77	5	15	2	3.62	10.35	658.42	11.37	657.40
MCU Staff Gauge	2173044.97	2970706.43	669.56	-	-	-	-	5.08	664.48	NM	
MW-10D	2171037.13	2974845.36	663.18	NA	NA	2	0.98	3.40	659.78	5.22	657.96
MW-10S	2171039.40	2974843.76	662.53	NA	NA	2	0.58	2.75	659.78	4.60	657.93
MW-11D	2175123.58	2976338.85	663.57	NA	NA	2	2.06	4.75	658.82	6.74	656.83
MW-11S	2175119.58	2976338.76	663.25	NA	NA	2	1.79	4.42	658.83	6.42	656.83
MW-12D	2175120.55	2975384.31	663.60	NA	NA	2	2.02	4.67	658.93	6.62	656.98
MW-12S	2175120.73	2975379.24	663.48	NA	NA	2	1.94	4.56	658.92	6.52	656.96
MW-13D	2173960.00	2976837.35	664.80	NA	NA	2	2.77	5.98	658.82	7.52	657.28
MW-13S	2173953.77	2976836.91	664.67	NA	NA	2	2.45	5.85	658.82	7.42	657.25
MW-14D	2174539.41	2977869.89	665.41	NA	NA	2	2.77	6.10	659.31	8.65	656.76
MW-14S	2174539.25	2977863.57	665.24	NA	NA	2	2.67	5.92	659.32	8.45	656.79
MW-1D	2170444.49	2973803.64	668.86	NA	NA	2	2.50	6.62	662.24	10.28	658.58
MW-1S	2170448.20	2973803.98	668.81	NA	NA	2	2.38	6.58	662.23	10.23	658.58
MW-2D	2172923.26	2976537.67	663.73	NA	NA	2	1.56	4.64	659.09	6.08	657.65
MW-2S	2172927.38	2976537.39	664.10	NA	NA	2	2.00	5.00	659.10	6.45	657.65
MW-3D	2174870.27	2976027.63	667.58	NA	NA	2	2.74	9.13	658.45	10.72	656.86
MW-3S	2174870.86	2976031.85	667.58	NA	NA	2	2.76	9.00	658.58	10.52	657.06

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				Top (ft-bgs)	Bottom (ft-bgs)			Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-NAVD88)
MW-4D	2174850.77	2974079.15	666.56	NA	NA	2	2.43	8.20	658.36	9.46	657.10
MW-4S	2174855.51	2974079.60	666.90	NA	NA	2	2.64	8.55	658.35	9.78	657.12
MW-5D	2172943.46	2973945.66	664.37	NA	NA	2	1.62	5.92	658.45	6.85	657.52
MW-5S	2172947.30	2973945.82	664.29	NA	NA	2	1.57	5.84	658.45	6.75	657.54
MW-6D	2176184.07	2979231.73	664.64	NA	NA	2	2.85	7.05	657.59	10.45	654.19
MW-6S	2176187.92	2979232.21	664.61	NA	NA	2	2.60	7.02	657.59	10.45	654.16
MW-7D	2176191.44	2976686.21	664.72	NA	NA	2	2.71	5.46	659.26	8.60	656.12
MW-7S	2176190.47	2976682.35	664.80	NA	NA	2	2.81	5.46	659.34	8.60	656.20
MW-8D	2178623.03	2975045.81	663.52	NA	NA	2	2.18	5.62	657.90	8.88	654.64
MW-8S	2178621.44	2975049.79	663.75	NA	NA	2	2.33	5.85	657.90	9.20	654.55
MW-9D	2178811.96	2972838.00	662.68	NA	NA	2	0.84	5.07	657.61	7.80	654.88
MW-9S	2178809.97	2972839.80	662.42	NA	NA	2	0.59	4.82	657.60	7.55	654.87
SW-10	2170976.65	2975340.69	660.45	-	-	-	0.00	1.60	658.85	2.20	658.25
SW-4	2174898.62	2973926.86	662.48	-	-	-	0.00	0.50	661.98	1.30	661.18
Davis Ditch West Gate	2173623.30	2967604.35	668.17	-	-	-	-	10.14	658.03	10.10	658.07

Notes:
Locations surveyed in US State Plane Indiana West Zone North American Datum of 1983 and North American Vertical Datum of 1988 (ft)
CCR = coal combustion residual
ft-bgs = feet below ground surface
ft-btoc = feet below top of casing
ft-NAVD88 = feet relative to NAVD88
in = inch
NA = not available
NM = not measured or not measurable (water level below top of pump)
1) Monitoring well was decommissioned in April 2023, and therefore water levels were not collected from these wells in September 2023.
2) Monitoring well was installed in April 2023, and water levels were first collected for these wells in September 2023.

Prepared by: GRD
Checked by: SHL
Reviewed by: MAH

Table 3: Summary of Sampling Events
CCR Unit Schahfer Waste Disposal Area
NIPSCO LLC Rollin M. Schahfer Generating Station
Wheatfield, Indiana

Well Purpose	Monitoring Well ID	Sample Event #20	Sample Event #21	Total Number of Samples
Purpose of Sample		Annual Assessment Monitoring	Semi-Annual Assessment Monitoring	
Sample Parameters		Appendix III and Appendix IV	Appendix III and detected Appendix IV	
Background Monitoring Well	GAMW03	4/14/2023	9/15/2023	2
	GAMW03B	4/14/2023	9/15/2023	2
	GAMW68	5/1/2023	10/2/2023	2
	GAMW68B	5/1/2023	10/2/2023	2
Downgradient Monitoring Well	GAMW01	4/13/2023	9/13/2023	2
	GAMW01B	4/13/2023	9/13/2023	2
	GAMW12	4/14/2023	9/15/2023	2
	GAMW12B	4/14/2023	9/15/2023	2
	GAMW13	4/14/2023	9/14/2023	2
	GAMW13B	4/14/2023	9/14/2023	2
	GAMW14	4/12/2023	9/14/2023	2
	GAMW14B	4/12/2023	9/14/2023	2
	GAMW42	5/2/2023	10/4/2023	2
	GAMW42B	5/2/2023	10/4/2023	2
	GAMW42C	5/3/2023	10/9/2023	2
	GAMW43	5/3/2023	10/9/2023	2
	GAMW43B	5/3/2023	10/9/2023	2
	GAMW44	5/4/2023	10/10/2023	2
	GAMW44B	5/4/2023	10/10/2023	2
	GAMW51	4/15/2023	9/18/2023	2
	GAMW51B	4/15/2023	9/19/2023	2
	GAMW57	5/4/2023	10/10/2023	2
	GAMW57B	5/5/2023	10/11/2023	2
	GAMW58	5/5/2023	10/11/2023	2
	GAMW58B	5/5/2023	10/11/2023	2
	GAMW59	4/15/2023	9/19/2023	2
	GAMW59B	4/15/2023	9/20/2023	2
	GAMW60	4/20/2023	9/19/2023	2
	GAMW60B	4/20/2023	9/19/2023	2
	GAMW77	-	11/13/2023	1
Total Number of Samples		29	30	59

Notes:
Sample counts do not include QC/QA samples.

(1) Sample events #1-19 were completed prior to 2023. The purpose, sample parameters, and sample dates are included in the 2017, 2018, 2019, 2020, 2021, and 2022 Annual Reports.

(2) Sample events #20 and 21 correspond to the eleventh and twelfth Assessment Monitoring events, respectively.

Prepared by: GRD
Checked by: SKG
Reviewed by: MAH

Table 4: 2023 Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW01		GAMW01B		GAMW03		GAMW03B		GAMW12		GAMW12B		GAMW13		GAMW13B		GAMW14	
	Sample Date	2023-04-13	2023-09-13	2023-04-13	2023-09-13	2023-04-14	2023-09-15	2023-04-14	2023-09-15	2023-04-14	2023-09-15	2023-04-14	2023-09-15	2023-04-14	2023-09-14	2023-04-14	2023-09-14	2023-04-12	2023-09-14
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Chemical	Unit																		
CCR Appendix III																			
Boron	mg/L	1	1.1	0.34	0.35	0.25	0.12	0.35	0.42	0.062 J	0.062 J	0.46	0.42	0.054 J	0.21	0.62	0.63	0.12	0.16
Calcium	mg/L	97.3	95.2	107	113	95.4	69.4	102	108	87.9	86.3	95.4	110	61.4	67.2	77	78	57.3	81
Chloride	mg/L	14.8	15.5	23.9	20.7	2.8	4.1	25	24.5	3.7	4.5	23.9	22.5	2.4	12.2	27.4	25.9	3	7.9
Fluoride	mg/L	0.34	0.32	0.17	0.14	0.22	0.16	0.19	0.21	0.19	0.2	0.094 J	0.098 J	0.23	0.26	0.27	0.22	0.16	0.14
pH	SU	7.92	7.51	7.05	7.54	6.94	7.54	7	7.52	7.36	7.85	7.32	8.16	6.64	7.34	7.35	8.59	6.56	7.65
Sulfate	mg/L	152	127	66.1	68.2	101	34.9	111	118	15.6	15	113	90.5	18	41.1	116	125	41.7	24.1
Total Dissolved Solids	mg/L	471	441	472	456	403	280	465	477	345	338	448	475	217	299	368	389	201	307
CCR Appendix IV																			
Antimony	mg/L	0.00015 J	0.001 U	8E-05 J	0.001 U	0.00056 J	0.001 U	8.6E-05 J	0.001 U	0.0001 J	0.001 U	0.001 U	0.001 U	0.00075 J	0.001 U	0.001 U	0.001 U	0.00022 J	0.001 U
Arsenic	mg/L	0.0066	0.012	0.0003 J	0.00034 J	0.0027	0.016	0.00043 J	0.00044 J	0.01	0.024	0.00041 J	0.00044 J	0.003	0.0057	0.0016	0.0011	0.0093	0.014
Barium	mg/L	0.062	0.058	0.19	0.18	0.082	0.071	0.11	0.11	0.087	0.091	0.14	0.15	0.066	0.11	0.087	0.076	0.045	0.051
Beryllium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	3.3E-05 J	0.0002 U
Cadmium	mg/L	2.5E-05 J	0.0002 U	0.0002 U	0.0002 U	7E-05 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	6.9E-05 J	6.9E-05 J	0.0002 U	0.0002 U	3.1E-05 J	0.0002 U
Chromium	mg/L	0.00044 J	0.00078 J	0.00045 J	0.0007 J	0.00039 J	0.0004 J	0.00044 J	0.00054 J	0.00043 J	0.0005 J	0.0003 J	0.00038 J	0.00044 J	0.00096 J	0.00047 J	0.00053 J	0.00096 J	0.00083 J
Cobalt	mg/L	0.0027	0.0017	0.00024 J	0.00024 J	0.0015	0.00081 J	0.00041 J	0.0002 J	0.0022	0.0019	0.00019 J	0.00019 J	0.00024 J	0.00067 J	0.00015 J	9.3E-05 J	0.012	0.016
Fluoride	mg/L	0.34	0.32	0.17	0.14	0.22	0.16	0.19	0.21	0.19	0.2	0.094 J	0.098 J	0.23	0.26	0.27	0.22	0.16	0.14
Lead	mg/L	0.001 U	3.8E-05 J	4E-05 J	6.4E-05 J	0.00016 J	4.1E-05 J	0.001 U	0.00011 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00096 J	0.00025 J	6.7E-05 J
Lithium	mg/L	0.01 U	0.0053 J	0.01 U	0.0082 J	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U
Mercury	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum	mg/L	0.018	0.012	0.0011	0.0011	0.01	0.0095	0.0065	0.0059	0.0046	0.0037	0.0027	0.002	0.0041	0.0033	0.014	0.015	0.0056	0.0044
Radium 226 + 228	pci/l	1.34 UJ	1.52 U	2.19 J-	2.64	1.54 U	1.75 U	1.58 U	1.45 U	2 U	1.4	1.59 U	1.43 U	1.69 U	1.55 J	1.66 U	3.02 J	1.87 U	1.68 UJ
Selenium	mg/L	0.011	0.0043	0.001 U	0.00035 J	0.00072 J	0.00025 J	0.001 U	0.0002 J	0.00038 J	0.00036 J	0.00022 J	0.001 U	0.00039 J	0.00041 J	0.00021 J	0.001 U	0.00055 J	0.00033 J
Thallium	mg/L	9.6E-05 J	9.8E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	5.7E-05 J	0.001 U
Sample Parameters																			
Dissolved Oxygen	mg/L	0.18	0.27	0.17	0.23	0.55	0.43	0.47	0.18	0.07	0.31	0.04	0.26	0.37	0.31	0.23	0.28	0.98	0.35
Oxidation-Reduction Potential	millivolts	-82.1	-62.8	-65.6	-82.6	41.7	-74.5	-58.1	-92.2	-78.2	-101.8	-76.9	-112.6	185.6	-83.3	-126	-141.8	-56.5	-68.4
pH	SU	7.92	7.51	7.05	7.54	6.94	7.54	7	7.52	7.36	7.85	7.32	8.16	6.64	7.34	7.35	8.59	6.56	7.65
Specific Conductance	mS/cm	0.455	0.444	0.501	0.392	0.461	0.291	0.556	0.341	0.321	0.359	0.407	0.369	0.279	0.374	0.486	0.338	0.281	0.322
Temperature	deg C	9.4	16.5	12.4	13.1	10.82	15.6	13.08	12.5	9	16.7	12	13.6	9.94	16.9	13.4	13.1	10.85	15.1
Turbidity	NTU	4.38	3.47	3.04	4.59	3.38	2.39	4.44	6.8	6.96	3.93	4.49	2.89	2.61	1.67	3.3	2.12	4.73	1.95

Notes:
mg/L = milligrams per liter
mS/cm = milli Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter
N = normal sample
FD = field dupicate

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated and may be biased high.
"J-" = Indicates the result is estimated and may be biased low
"UJ" = Indicates the result is estimated and non-detect.

Table 4: 2023 Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW14B		GAMW42		GAMW42B		GAMW42C		GAMW43			GAMW43B			GAMW44		GAMW44B		GAMW51		GAMW51B		
	Sample Date	2023-04-12	2023-09-14	2023-05-02	2023-10-04	2023-05-02	2023-10-04	2023-05-03	2023-10-09	2023-05-03		2023-10-09	2023-05-03	2023-10-09		2023-05-04	2023-10-10	2023-05-04	2023-10-10	2023-04-15	2023-09-18	2023-04-15	2023-09-19	
	Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N
Chemical	Unit																							
CCR Appendix III																								
Boron	mg/L	2.4	3.5	0.1 U	0.024 J	0.1 U	0.035 J	0.74	0.93	0.1 U	0.1 U	0.015 J	0.1 U	0.028 J	0.028 J	0.1 U	0.042 J	0.1 U	0.027 J	0.42	0.67	7.1	7.4	7.4
Calcium	mg/L	175	174	64.7	61.7	67.6	68.4	57.4	57.5	25.8	25.2	32.3	38.2	38	38.5	15.2	25.2	30.7	32.9	131	178	209	200	199
Chloride	mg/L	108	124	11.1	10.3	11.1	15.8	11.4	11.9	0.39	0.39	0.62	1.6	1.5	1.5	3.2	1.4	1.6	1.6	2.3	3.9	46.5	46.4	44.7
Fluoride	mg/L	0.05 U	0.23	0.16	0.13	0.16	0.11	0.22	0.18	0.14	0.14	0.12	0.18	0.16	0.16	0.13	0.12	0.13	0.094 J	0.32	0.32	1	0.94	1
pH	SU	7.58	8.23	8.51	7.95	7.81	7.86	7.59	7.65		9.09	7.62	9.36		8.11	6.58	7.17	7.94	8.28	6.65	7.53	7.63		8.57
Sulfate	mg/L	922	1140	52.5	57.1	46.9	24.1	11.9	4.5	24.6	24.6	19.6	21.7	16.8	16.8	45.7	45.3	6.5	5.3	173	282	1230	1270	1430
Total Dissolved Solids	mg/L	3420	2230	235	253	244	246	277	273	102	111	132	156	133	135	159	132	81	111	523	782	1930	2040	2120
CCR Appendix IV																								
Antimony	mg/L	7.2E-05 J	0.001 U	8.4E-05 J	0.001 U	7.6E-05 J	0.001 U	9.1E-05 J	0.001 U	0.00026 J	0.00027 J	0.00013 J	8.8E-05 J	0.001 U	0.001 U	0.00044 J	0.00022 J	6.1E-05 J	0.001 U	0.00013 J	0.001 U	8.7E-05 J	0.001 U	0.001 U
Arsenic	mg/L	0.0004 J	0.00071 J	0.00092 J	0.0012	0.0003 J	0.00024 J	0.00055 J	0.00024 J	0.0023	0.0023	0.0025	0.00044 J	0.00047 J	0.00046 J	0.058	0.063	0.0003 J	0.00021 J	0.0015	0.0014	0.0041	0.0042	0.0042
Barium	mg/L	0.064	0.083	0.023	0.022	0.023	0.021	0.01	0.0094	0.015	0.015	0.019	0.012	0.011	0.011	0.032	0.022	0.0084 J+	0.0088	0.089	0.12	0.056	0.049	0.05
Beryllium	mg/L	3.8E-05 J	6.5E-05 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0003	6.7E-05 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Cadmium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	1.5E-05 J	1.3E-05 J	2.2E-05 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	1.1E-05 J	0.0002 U	0.0002 U	2.3E-05 J
Chromium	mg/L	0.0009 J	0.0016 J	0.00073 J	0.00078 J	0.00084 J	0.00046 J	0.0015 J	0.00092 J	0.00077 J	0.00074 J	0.00054 J	0.0006 J	0.00061 J	0.00053 J	0.0061	0.002 U	0.002 U	0.002 U	0.00036 J	0.00037 J	0.00059 J	0.002 U	0.002 U
Cobalt	mg/L	0.00026 J	0.00032 J	8.3E-05 J	0.00012 J	0.00014 J	0.00015 J	0.00048 J	0.00022 J	0.00068 J	0.00068 J	0.0014	0.00013 J	0.00013 J	0.00013 J	0.0017	0.0011	6E-05 J	0.001 U	0.0042	0.0027	0.00032 J	0.0004 J	0.00036 J
Fluoride	mg/L	0.05 U	0.23	0.16	0.13	0.16	0.11	0.22	0.18	0.14	0.14	0.12	0.18	0.16	0.16	0.13	0.12	0.13	0.094 J	0.32	0.32	1	0.94	1
Lead	mg/L	3.8E-05 J	5.7E-05 J	6E-05 J	0.001 U	0.00016 J	0.00012 J	0.00074 J	0.00019 J	0.00029 J	0.00025 J	0.00012 J	0.00014 J	9.6E-05 J	0.0001 J	0.0014	9.9E-05 J	0.00026 J	0.00014 J	0.001 U	3.7E-05 J	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.033	0.042	0.01 U	0.01 U	0.02 U	0.01 U	0.02 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.007 J	0.066	0.056	0.056
Mercury	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum	mg/L	0.028	0.018	0.0036	0.0036	0.003	0.0023	0.0037	0.0024	0.0031	0.0031	0.0054	0.0022	0.0025	0.0025	0.0037	0.0093	0.0018	0.0018	0.0074	0.012	0.13	0.13	0.13
Radium 226 + 228	pci/l	2.77	2.42 J	1.52 U	1.83 U	1.31 U	2.09 U	1.7	1.25 U	1.49 U	1.38 U	1.63 U	1.3 U	1.4 U	1.1 U	1.35 U	1.23 U	2.13 U	1.17 U	1.63 U	2.1	2.95	3.7	4.34
Selenium	mg/L	0.00029 J	0.00064 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0003 J	0.00028 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00095 J	0.00021 J	0.001 U	0.001 U	0.00035 J	0.00021 J	0.00048 J	0.0005 J	0.00049 J
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	4E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																								
Dissolved Oxygen	mg/L	0.13	0.24	0.26	0.31	0.07	0.21	0.19	0.19		0.14	0.35	0.12		0.34	0.97	0.56	0.12	0.32	0.28	0.18	0.15		0.26
Oxidation-Reduction Potential	millivolts	-83.5	-112.7	-116.8	-71.4	-99.5	-90.3	-88.6	-72.5		-85.6	12.5	-129.6		17.1	-34.1	-11.1	-92.6	-40.1	-41.6	-101.5	-123.6		-61.9
pH	SU	7.58	8.23	8.51	7.95	7.81	7.86	7.59	7.65		9.09	7.62	9.36		8.11	6.58	7.17	7.94	8.28	6.65	7.53	7.63		8.57
Specific Conductance	mS/cm	1.654	1.378	0.275	0.247	0.291	0.223	0.338	0.501		0.137	0.258	0.172		0.228	0.145	0.255	0.138	0.176	0.641	0.512	2.107		1.708
Temperature	deg C	12	12.7	8.7	15.4	10.7	12.6	10.1	11.8		9	14.8	9.8		12	9	13.3	10.4	11	12.58	14.6	14.01		12.5
Turbidity	NTU	1.69	1.88	4.32	1.72	4.46	4.59	168.66	5.81		4.31	2.39	1.84		2.62	12.51	3.25	0.66	1.13	6.39	5.91	0.85		1.72

Notes:
mg/L = milligrams per liter
mS/cm = milli Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter
N = normal sample
FD = field dupicate

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated and may be biased high.
"J-" = Indicates the result is estimated and may be biased low
"UJ" = Indicates the result is estimated and non-detect.

Table 4: 2023 Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW57		GAMW57B		GAMW58		GAMW58B		GAMW59		GAMW59B		GAMW60			GAMW60B		GAMW68		GAMW68B				GAMW77
Sample Date		2023-05-04	2023-10-10	2023-05-05	2023-10-11	2023-05-05	2023-10-11	2023-05-05	2023-10-11	2023-04-15	2023-09-19	2023-04-15	2023-09-20	2023-04-20		2023-09-19	2023-04-20	2023-09-19	2023-05-01	2023-10-02	2023-05-01		2023-10-02		2023-11-13
Sample Type		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N	FD	N	N
Chemical	Unit																								
CCR Appendix III																									
Boron	mg/L	0.1 U	0.033 J	0.064 J	0.079 J	0.1 U	0.039 J	0.1 U	0.042 J	0.61	0.5	5.7	3	1.2	1.2	1.5	7.1	4.3	0.1 U	0.06 J	0.1 U	0.1 U	0.034 J	0.041 J	0.040 J
Calcium	mg/L	18.9	22.7	47.8	47.3	9.5	11.9	39.4	40.5	256	265	155	184	389	385	267	402	368	62.4	63.9	48.4	47	41.4	41.4	34
Chloride	mg/L	2.2	0.89	15.3	14.5	1	0.91	4.1	3.9	2.5	5.7	66.4	14	13.8	13.9	27.1	12.1	9.2	19.5	18.7	14.4	14.6	12.9	13	2.1
Fluoride	mg/L	0.05 U	0.05 U	0.15	0.11	0.48	0.41	0.18	0.13	0.7	0.7	0.5	0.46	0.5	0.5	0.45	0.54	0.41	0.2	0.18	0.18	0.17	0.17	0.17	0.05 U
pH	SU	7.47	8.83	7.89	8.44	6.85	6.63	7.95	8.22	6.96	7.06	7.31	7.36		6.66	6.74	7.35	7.14	8.83	7.97		9.36		8.08	7.4 J
Sulfate	mg/L	47.9	26.6	16.9	12.1	43.1	41.1	24.1	20.8	554	549	858	853	859	826	517	1050	1040	64	63.6	70.8	71	46.7	46.7	22
Total Dissolved Solids	mg/L	95	90	166	172	60	79	131	129	1020	1050	1670	1500	1490	1480	1160	1880	1730	260	282	202	229	205	203	127
CCR Appendix IV																									
Antimony	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	8.6E-05 J	0.001 U	0.001 U	0.001 U	0.00015 J	0.00016 J	0.0002 J	0.001 U	0.001 U	0.001 U	0.00019 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Arsenic	mg/L	0.00012 J	0.00022 J	0.00063 J	0.00073 J	0.003	0.0056	0.0006 J	0.00069 J	0.00083 J	0.0012	0.0009 J	0.0007 J	0.00038 J	0.00035 J	0.00033 J	0.0002 J	0.00019 J	0.003	0.00097 J	0.00023 J	0.00024 J	0.00029 J	0.00031 J	0.00065 J
Barium	mg/L	0.016	0.0056	0.02	0.021	0.048	0.035	0.014	0.016	0.079	0.069	0.031	0.027	0.03	0.03	0.031	0.066	0.062	0.1	0.1	0.098	0.099	0.084	0.082	0.0042
Beryllium	mg/L	5.9E-05 J	0.0002 U	0.0002 U	0.0002 U	0.00082	0.00063	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Cadmium	mg/L	9.3E-05 J	0.0002 U	0.0002 U	0.0002 U	0.0001 J	8.2E-05 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	4E-05 J	4E-05 J	3.2E-05 J	0.0002 U	2.2E-05 J	0.0002 U	0.0002 U	1.4E-05 J	0.0002 U	0.0002 U	0.0002 U	0.000043 J
Chromium	mg/L	0.002 U	0.002 U	0.00036 J	0.00044 J	0.001 J	0.00089 J	0.00035 J	0.00061 J	0.00029 J	0.002 U	0.0006 J	0.00067 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00067 J
Cobalt	mg/L	0.0015	9.7E-05 J	9.5E-05 J	0.0001 J	0.012	0.012	0.00011 J	0.00021 J	0.001	0.00083 J	0.00034 J	0.00035 J	0.0016	0.0015	0.0011	0.00054 J	0.00057 J	0.00065 J	0.00053 J	4.3E-05 J	4.4E-05 J	4.7E-05 J	4.6E-05 J	0.00069 J
Fluoride	mg/L	0.05 U	0.05 U	0.15	0.11	0.48	0.41	0.18	0.13	0.7	0.7	0.5	0.46	0.5	0.5	0.45	0.54	0.41	0.2	0.18	0.18	0.17	0.17	0.17	0.05 U
Lead	mg/L	0.00051 J	0.00016 J	0.001 U	0.001 U	0.00028 J	0.00031 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0003 J	0.001 U	4.9E-05 J	4E-05 J	0.001 U	0.001 U	0.00014 J
Lithium	mg/L	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.0099 J	0.01	0.0073 J	0.01 U	0.01 U	0.0073 J	0.077	0.064	0.01 U	0.0069 J	0.01 U	0.01 U	0.0067 J	0.0067 J	0.02 U
Mercury	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Molybdenum	mg/L	0.001	0.0006 J	0.003	0.0039	0.00052 J	0.0007 J	0.003	0.003	0.028	0.025	0.08	0.043	0.014	0.014	0.019	0.24	0.15	0.0033	0.004	0.0021	0.0021	0.0024	0.0023	0.0017
Radium 226 + 228	pci/l	1.61 U	1.02 U	1.4 U	1.49 U	1.38 U	1.29 U	1.52 U	1.45 U	1.45 U	1.88 U	1.8	2.32	1.55 UJ	1.97 UJ	1.79 U	3.66 J-	4.47	1.49 U	1.53 U	1.13	1.24 U	1.69 U	1.91	0.241 U
Selenium	mg/L	0.001 U	0.001 U	0.001 UJ	0.001 U	0.0029 J-	0.0023	0.001 UJ	0.001 U	0.001 U	0.001 U	0.0003 J	0.00023 J	0.0057	0.0055	0.0021	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																									
Dissolved Oxygen	mg/L	7.07	5.01	0.32	0.49	0.38	0.29	0.12	0.32	0.16	0.14	0.17	0.28		0.27	0.44	0.09	0.12	0.24	0.25		0.05		0.2	
Oxidation-Reduction Potential	millivolts	14.9	28.9	-71.6	-80.7	-39.8	37.2	-103.6	-14.6	-41.7	-87	-93.1	-123.9		53.1	129.5	-106.7	-110.8	-117.8	-52.4		-193.7		-105.2	
pH	SU	7.47	8.83	7.89	8.44	6.85	6.63	7.95	8.22	6.96	7.06	7.31	7.36		6.66	6.74	7.35	7.14	8.83	7.97		9.36		8.08	
Specific Conductance	mS/cm	0.132	0.152	0.232	0.254	0.085	0.121	0.191	0.213	1.054	1.073	1.874	1.537		1.486	1.232	1.701	1.496	0.297	0.322		0.271		0.228	
Temperature	deg C	9.6	11.4	10.6	10.5	8.9	12.2	10.6	10.9	14.88	17.95	14.74	16.19		13.9	17.33	14.08	14.12	8.2	14.8		9.9		12.9	
Turbidity	NTU	2.79	4.15	0.95	1.54	4.41	3.88	1.42	2.31	3.07	2.81	0.76	0.62		1.36	0.36	1.58	0.8	7.89	2.12		4.03		3.71	

Notes:
mg/L = milligrams per liter
mS/cm = milli Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter
N = normal sample
FD = field dupicate

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated and may be biased high.
"J-" = Indicates the result is estimated and may be biased low
"UJ" = Indicates the result is estimated and non-detect.

Prepared by: GRD
Checked by: SKG
Reviewed by: MAH

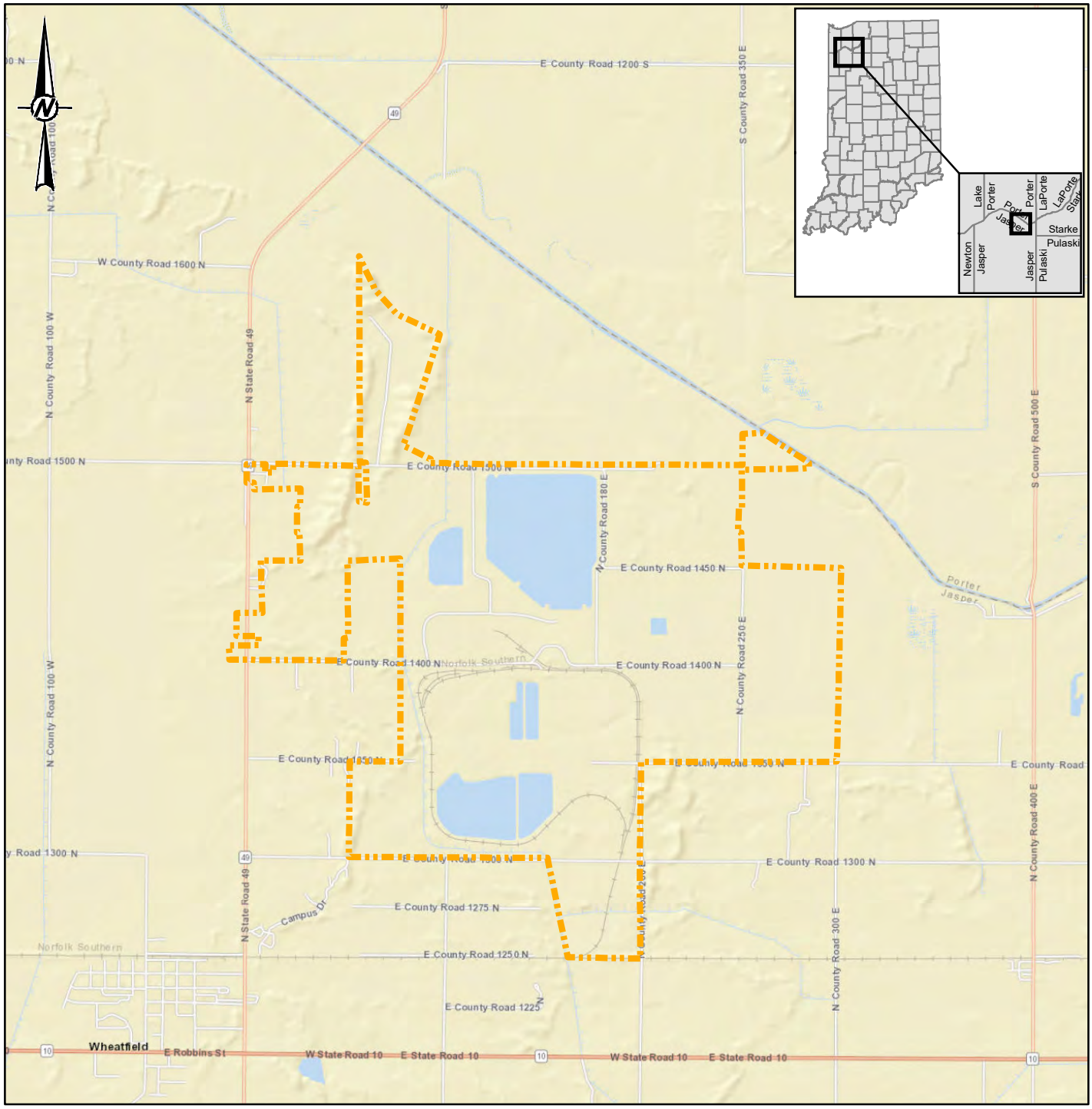
Table 5: Groundwater Protection Standards
CCR Unit Schahfer Waste Disposal Area
NIPSCO LLC Rollin M. Schahfer Generating Station
Wheatfield, Indiana

Analyte	MCL (mg/L)	GWPS (mg/L)[2]	GWPS (mg/L)[3]	GWPS (mg/L)[4]
Antimony	0.006	0.006	0.006	0.006
Arsenic	0.01	0.015	0.018	0.019
Barium	2	2	2	2
Beryllium	0.004	0.004	0.004	0.004
Cadmium	0.005	0.005	0.005	0.005
Chromium	0.1	0.1	0.1	0.1
Cobalt[1]	0.006	0.015	0.015	0.015
Fluoride	4	4	4	4
Lead[1]	0.015	0.015	0.015	0.015
Lithium[1]	0.04	0.04	0.04	0.04
Mercury	0.002	0.002	0.002	0.002
Molybdenum[1]	0.1	0.1	0.1	0.1
Radium 226+228	5	5	5	5
Selenium	0.05	0.05	0.05	0.05
Thallium	0.002	0.002	0.002	0.002

Notes:
MCL= Environmental Protection Agency Maximum Contaminant Level
GWPS= Groundwater Protection Standard
mg/L= milligrams per liter
1) As of August 29, 2018, these four constituents have health-based standards that can be used when calculating the GWPS, these health-based standards are not MCLs but are provided in the MCL column.
2) GWPS calculated in August 2018.
3) GWPS calculated in March 2020.
4) GWPS calculated in September 2022.

Prepared by: GRD
Checked by: DFSC
Reviewed by: MAH

Figures



LEGEND

Approximate Property Line

0 0.75 1.5

1 " = 0.75 miles Miles

REFERENCE(S)

SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

CLIENT

NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC

PROJECT

R.M. SCHAHFER GENERATING STATION
WHEATFIELD, INDIANA

TITLE

SITE LOCATION MAP

CONSULTANT

wsp

YYYY-MM-DD	1/04/2021
DESIGNED	DFSC
PREPARED	SHL
REVIEWED	DFSC
APPROVED	MAH

PROJECT NO.	CONTROL	REV.	FIGURE
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1 in

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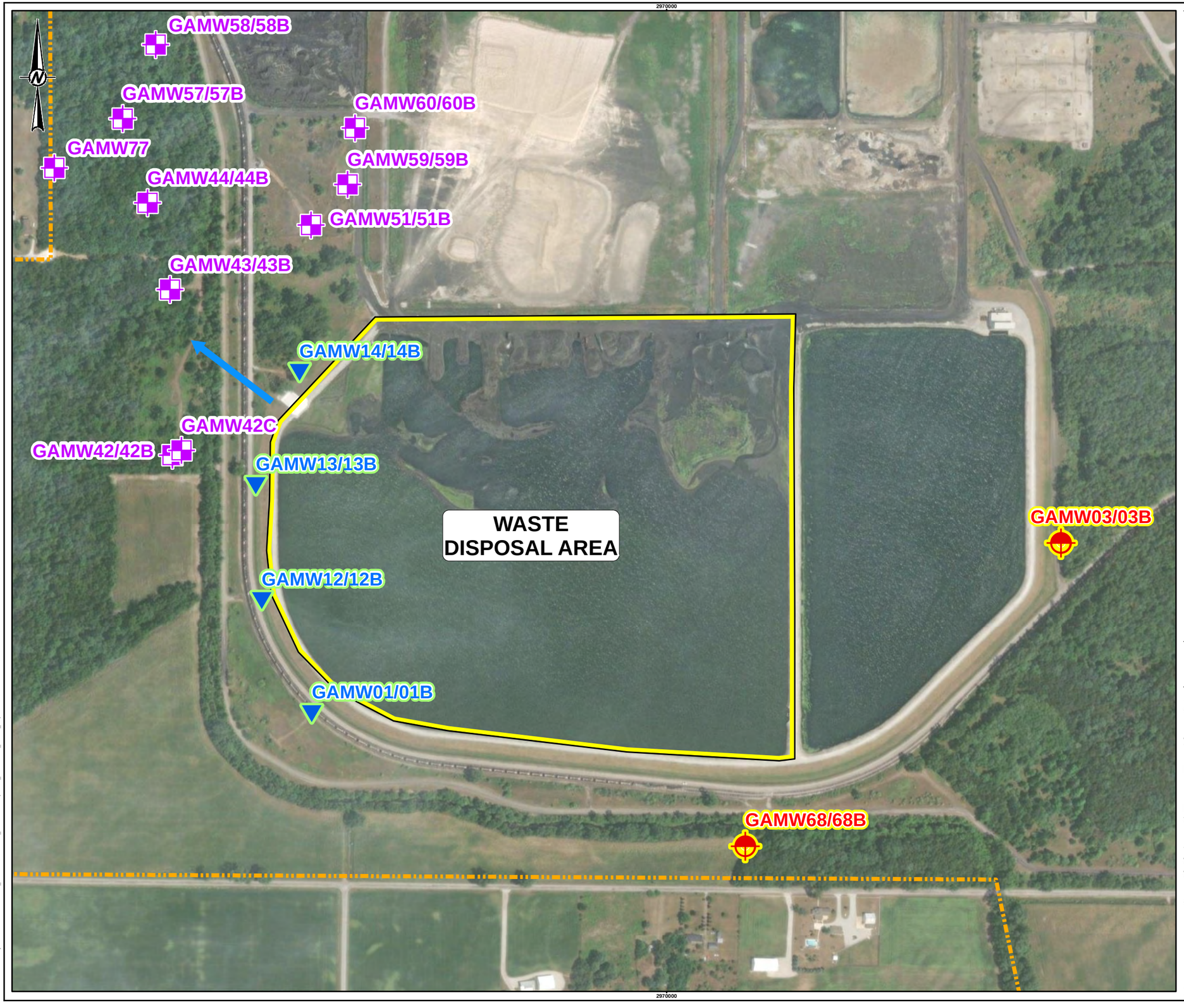

LEGEND

- Assessment Monitoring Well
- Background Monitoring Well
- Downgradient Monitoring Well
- Generalized Groundwater Flow Direction
- Approximate Property Line
- CCR Unit

0 400 800

1 " = 400 feet Feet

NOTE(S)

REFERENCE(S)

1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT

NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC

PROJECT

R.M. SCHAHFER GENERATING STATION
WHEATFIELD, INDIANA

TITLE

WELL LOCATION MAP
WASTE DISPOSAL AREA

CONSULTANT

wsp

YYYY-MM-DD	1/16/2024
DESIGNED	DFSC
PREPARED	SHL
REVIEWED	TDH
APPROVED	MAH

PROJECT NO.	CONTROL	REV.	FIGURE
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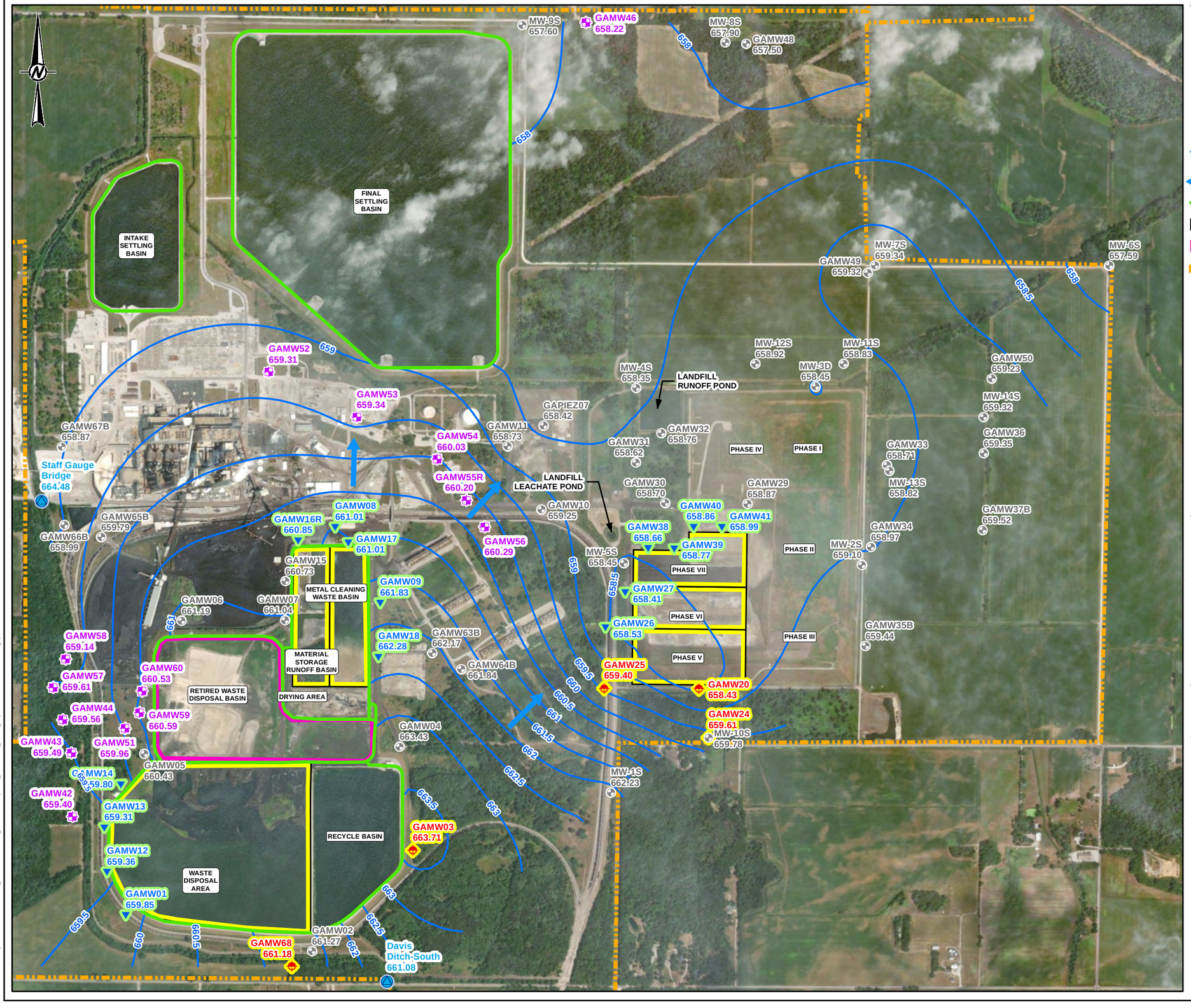

LEGEND

- Assessment Monitoring Well
- Background Monitoring Well
- Downgradient Monitoring Well
- Non-CCR Well
- Surface Water Location
- April 2023 Groundwater Elevation Contours (0.5 ft interval)
- Generalized Groundwater Flow Direction
- Slurry Wall
- CCR Units
- Inactive Retired Waste Disposal Basin
- Approximate Property Line

NOTE(S)

1. THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION SCREENED WITHIN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY WSP ON APRIL 11, 2023.

THE DIRECTION OF HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

REFERENCE(S)

1. SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT

NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC

PROJECT

R.M. SCHAHFER GENERATING STATION
WHEATFIELD, INDIANA

TITLE

APRIL 2023 GROUNDWATER ELEVATION CONTOURS

CONSULTANT

wsp

YYYY-MM-DD	2024-01-18
DESIGNED	DFSC
PREPARED	SHL
REVIEWED	TDH
APPROVED	MAH

PROJECT NO.	CONTROL	REV.	FIGURE
31406779.023	A	0	3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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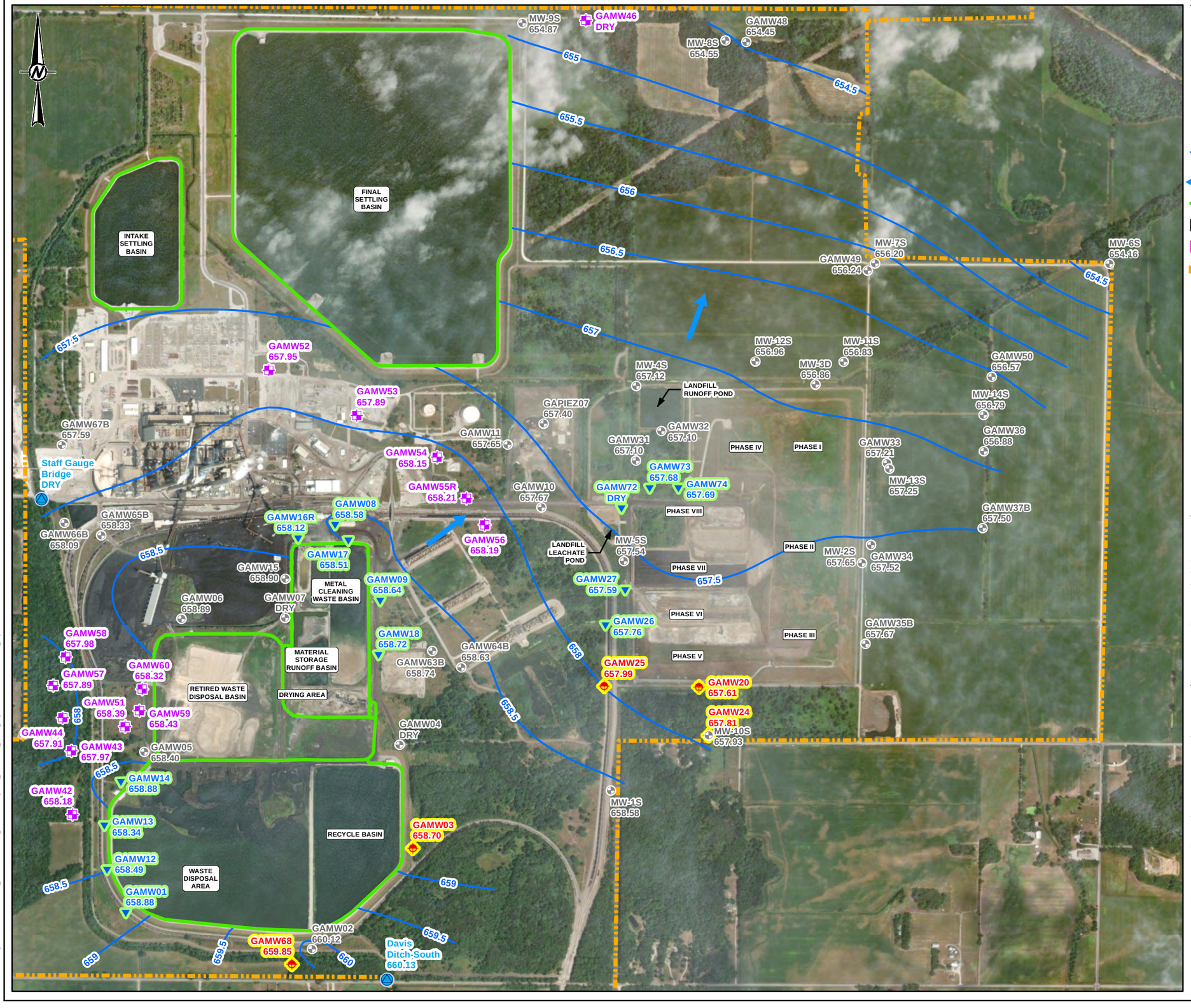

LEGEND

- Assessment Monitoring Well
- Background Monitoring Well
- Downgradient Monitoring Well
- Non-CCR Well
- Surface Water Location
- September 2023 Groundwater Elevation Contour (0.5ft interval)
- Generalized Groundwater Flow Direction
- Slurry Wall
- CCR Units
- Inactive Retired Waste Disposal Basin
- Approximate Property Line

0 1,000 2,000
Feet

NOTE(S)

1. THIS FIGURE DEPICTS THE GROUNDWATER ELEVATION SCREENED WITHIN THE UPPER PORTION OF THE SURFICIAL AQUIFER AND IS INTENDED TO REPRESENT THE APPROXIMATE ELEVATION OF THE GROUNDWATER POTENTIOMETRIC SURFACE. THE POSTED DATA WERE CALCULATED FROM DEPTH TO WATER MEASUREMENTS MADE BY WSP ON SEPTEMBER 6, 2023.

THE DIRECTION OF HORIZONTAL GROUNDWATER FLOW AT AND NEAR THE POTENTIOMETRIC SURFACE CAN BE GENERALLY INTERPRETED AS BEING PERPENDICULAR TO THE GROUNDWATER ELEVATION CONTOURS.

2. 'DRY' INDICATES WATER LEVEL WAS BELOW TOP OF PUMP AND NOT MEASURABLE.

REFERENCE(S)

1. SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT

NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC

PROJECT

R.M. SCHAHFER GENERATING STATION
WHEATFIELD, INDIANA

TITLE

SEPTEMBER 2023 GROUNDWATER ELEVATION CONTOURS

CONSULTANT

wsp

YYYY-MM-DD	2024-01-18
DESIGNED	DFSC
PREPARED	SHL
REVIEWED	TDH
APPROVED	MAH

PROJECT NO.	CONTROL	REV.	FIGURE
31406779.023	A	0	4

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APPENDIX A

Waste Disposal Area Alternative Source Demonstration May 2023

Northern Indiana Public Service Company LLC (NIPSCO)

R. M. Schahfer Generating Station – Waste Disposal Area

Wheatfield, Indiana

Recertification of Alternative Source Demonstration

40 CFR §257.95

I have personally reviewed this recertification of the alternative source demonstration (ASD), the subject of which is the Waste Disposal Area (WDA) at the NIPSCO LLC R. M. Schahfer Generating Station, prepared by WSP USA Inc. and dated May 8, 2023. Based on an inquiry of those individuals immediately responsible and on supporting data that I understand to be true, accurate, and complete, I verify the information in this recertification of the ASD is accurate and meets the applicable requirements of the CCR Rule. In consideration of the above, I certify to the best of my knowledge, information, and belief, that the ASD for the regulated CCR management unit referred to as the WDA meets the applicable requirements of 40 CFR §257.95.

Joseph Bernard Gormley, Jr.
Indiana Professional Engineer
License #: PE11900213

5/8/2023
Date

TECHNICAL MEMORANDUM

DATE May 8, 2023 **Project No.** 31404789.011

TO Jeff Loewe, Dan Sullivan, NIPSCO LLC

CC Josh Moore, Joe Kutch, Mark Haney

FROM Danielle Sylvia Cofelice, Joseph B. Gormley, Jr., PE **EMAIL danielle.sylvia@wsp.com, joseph.gormley@wsp.com**

RE: RECERTIFICATION OF R.M. SCHAHFER WASTE DISPOSAL AREA ALTERNATIVE SOURCE DEMONSTRATION

On behalf of Northern Indiana Public Service Company LLC (NIPSCO) and in accordance with 40 CFR §257.95(g)(3), WSP USA Inc. (WSP), formerly Golder Associates USA Inc. (Golder), has prepared this technical memorandum to confirm that the latest assessment monitoring results 1) are consistent with previous monitoring events, and 2) continue to support the findings of the June 9, 2020 Alternative Source Demonstration (ASD) for the Waste Disposal Area (WDA) Coal Combustion Residual Unit (CCR Unit) at the NIPSCO Rollin M. Schahfer Generating Station (RMSGS).

1.0 BACKGROUND

Following Detection Monitoring and the determination of statistically significant increases (SSIs) over background levels for one or more Appendix III constituents, NIPSCO established an Assessment Monitoring program in January 2018 to assess the nature and extent and overall groundwater quality farther downgradient of the WDA. In 2019, additional monitoring wells were added to the network including GAMW60B, which was installed downgradient of wells GAMW51 and GAMW51B to further assess the nature and extent and overall groundwater quality farther downgradient of the WDA. The WDA and groundwater monitoring network are shown in the embedded table below and in attached Figure 1.

Background Monitoring Wells	Downgradient Monitoring Wells	Assessment Monitoring Wells
GAMW-03 and GAMW-03B	GAMW-01, GAMW-01B, GAMW-12, GAMW-12B, GAMW-13, GAMW-13B, GAMW-14, and GAMW-14B	GAMW42, GAMW42B, GAMW42C*, GAMW43, GAMW43B, GAMW44, GAMW44B, GAMW51, GAMW51B, GAMW57*, GAMW57B*, GAMW58*, GAMW58B*, GAMW59*, GAMW59B*, GAMW60*, and GAMW60B*

*Monitoring well installed in 2019

As part of the Assessment Monitoring program for the WDA, WSP collects groundwater samples from each background and downgradient monitoring well for analysis of Appendix III and IV constituents per 40 CFR §257.95. Following receipt and validation of laboratory results, WSP evaluates the results to determine the concentration of Appendix IV constituents in the wells relative to groundwater protection standards (GWPS). The GWPS for lithium (0.04 mg/L) and molybdenum (0.1 mg/L) are equal to the risk-based levels included in the CCR

Rule, Part 1 Phase 1 Addendum. In addition, WSP's evaluations include statistical analysis of the results that are performed in accordance with 40 CFR §257.95(h)(2).

Following the fourth Assessment Monitoring event in October/November 2019, WSP performed a statistical evaluation of analytical data in March 2020. The results of that statistical evaluation indicated an apparent statistically significant level (SSL) for molybdenum in well GAMW51B. While the results did not indicate an apparent SSL for lithium in well GAMW51B, they did show that three of the four samples collected from GAMW51B had detections of lithium above the GWPS.

Although determination of apparent SSLs generally indicates that the groundwater monitoring program should transition from Assessment Monitoring to Assessment of Corrective Measures, 40 CFR §257.95(g)(3)(ii) allows the owner or operator (e.g., NIPSCO) to demonstrate that a source other than the CCR Unit or another condition caused the apparent SSLs. Therefore, NIPSCO tasked WSP with further evaluating the data findings and, if appropriate, performing an ASD for the WDA.

For the ASD, WSP presented a preliminary assessment of the Site history, geologic conditions, and data from porewater, CCR source materials, overburden, bedrock, and groundwater samples that indicated the potential for the SSL to be a result of another condition or a source other than the CCR Unit. Based on the preliminary assessment results, WSP performed additional evaluations to demonstrate that molybdenum and lithium concentrations in well GAMW51B were related to other sources and summarized those evaluations in the June 2020 ASD for the WDA.

As described in the June 2020 ASD, the WDA has generally received and managed the same waste streams and been operated in a consistent manner since its opening more than 35 years ago. Given the lengthy time horizon of operations and geochemical fingerprints of the source materials within the CCR Unit, if the WDA was the source of molybdenum in groundwater at GAMW51B, it would be expected that wells upgradient of GAMW51B would have similar or higher concentrations of molybdenum; however, they do not.

Furthermore, the June 2020 WDA ASD discussed the following three primary lines of evidence that demonstrated that the WDA is not the source of the molybdenum in the groundwater monitored by GAMW51B:

1) The low concentrations of molybdenum in the WDA source materials and porewater.

2) The relative major ion abundance in groundwater that demonstrates a distinct difference between WDA porewater and downgradient groundwater samples, with no indications of mixing.

3) The waste management boundary monitoring wells GAMW14 and GAMW14B, which are located upgradient of monitoring wells GAMW51B, do not indicate molybdenum above the GWPS.

Following the ASD and in accordance with 40 CFR §257.95(g)(3), WSP continued Assessment Monitoring of the WDA. Based on monitoring results from the fifth Assessment Monitoring event, WSP confirmed molybdenum and lithium concentrations were consistent with previous results for GAMW51B. As a result, Golder recertified the ASD in December 2020.

The October 2020 Assessment Monitoring event was the sixth overall and the fourth round of sampling at location GAMW60B, and the results indicated an SSL for molybdenum. Since GAMW60B is further downgradient than GAMW51B from the WDA and the ASD determined that previous SSLs observed at GAMW51B were not due to a

release from the WDA, it follows that the current apparent SSLs observed at both GAMW51B and GAMW60B are not due to a release from the WDA. As a result, WSP recertified the ASD in May 2021 after the sixth Assessment Monitoring event (October 2020), in November 2021 after the seventh Assessment Monitoring event (April 2021), in April 2022 after the eighth Assessment Monitoring event (September 2021), and in December 2022 after the ninth Assessment Monitoring event (April 2022).

2.0 SUMMARY OF SEPTEMBER/OCTOBER 2022 ASSESSMENT MONITORING RESULTS

WSP performed the tenth Assessment Monitoring event for the WDA in September/October 2022. The monitoring results from that event showed lithium and molybdenum concentrations in the GAMW51B sample were 0.071 milligrams per liter (mg/L) and 0.14 mg/L, respectively. These results are 1.8 and 1.4 times greater than the GWPS of 0.04 mg/L and 0.1 mg/L for lithium and molybdenum, respectively. In addition, the monitoring results showed that the molybdenum concentration in the GAMW60B sample was 0.18 mg/L, which is 1.8 times the GWPS of 0.1 mg/l for molybdenum. The results for both wells are within the range of the previous concentrations found at these wells.

3.0 DATA EVALUATION AND COMPARISON TO PREVIOUS RESULTS

Consistent with previous monitoring events and in accordance with the CCR Rule, WSP performed a statistical evaluation of groundwater analytical results from the tenth Assessment Monitoring event (September/October 2022) at the WDA. The statistical evaluation was completed on February 7, 2023 and the statistical evaluation results indicated the lower confidence level (LCL) concentrations for lithium and molybdenum in assessment monitoring well GAMW51B and molybdenum in assessment monitoring well GAMW60B exceeded the GWPS, which are interpreted as apparent evidence of SSLs in those wells.

As noted above, WSP previously identified similar concentrations of lithium and molybdenum in GAMW51B after the fourth (October 2019) Assessment Monitoring event at the WDA. In response, WSP prepared an ASD, dated June 9, 2020 (Golder 2020), that showed the source material characteristics and site hydrogeology indicate that the apparent lithium and molybdenum SSLs observed in GAMW51B were not due to a release from the WDA. Since GAMW60B is further downgradient then GAMW51B from the WDA and the ASD determined that previous SSLs observed at GAMW51B were not due to a release from the WDA, it follows that the current apparent SSLs observed at both GAMW51B and GAMW60B are not due to a release from the WDA.

4.0 CONCLUSIONS

WSP's evaluation of the groundwater results for the tenth Assessment Monitoring event confirm that the lithium and molybdenum results are consistent with those from the previous Assessment Monitoring events, and the rationale presented in the June 9, 2020 ASD is still applicable.

As described above and in the ASD, the source material characteristics and site hydrogeology indicate that the source of the apparent lithium and molybdenum SSLs observed in GAMW51B and the apparent molybdenum SSL in GAMW60B are due to a different condition and not due to a release from the WDA. Therefore, no further action (e.g., Assessment of Corrective Measures) is warranted, and the WDA will remain in Assessment Monitoring.

5.0 REFERENCES

Golder 2020. Alternative Source Demonstration – Waste Disposal Area, Golder Associates Inc., June 9, 2020.

Golder 2020. Recertification of R.M. Schahfer Waste Disposal Area Alternative Source Demonstration, Golder Associates Inc., December 4, 2020.

Golder 2021. Recertification of R.M. Schahfer Waste Disposal Area Alternative Source Demonstration, Golder Associates Inc., May 18, 2021.

Golder 2021. Recertification of R.M. Schahfer Waste Disposal Area Alternative Source Demonstration, Golder Associates Inc., November 12, 2021.

Golder 2022. Recertification of R.M. Schahfer Waste Disposal Area Alternative Source Demonstration, Golder Associates USA Inc., April 15, 2022.

Golder 2022. Recertification of R.M. Schahfer Waste Disposal Area Alternative Source Demonstration, Golder Associates USA Inc., December 2, 2022.

APPENDIX B

Waste Disposal Area Alternative Source Demonstration November 2023

REPORT

Alternative Source Demonstration - Waste Disposal Area

Northern Indiana Public Service Company LLC R. M. Schahfer Generating Station Wheatfield, Indiana

Submitted to:

Northern Indiana Public Service Company LLC

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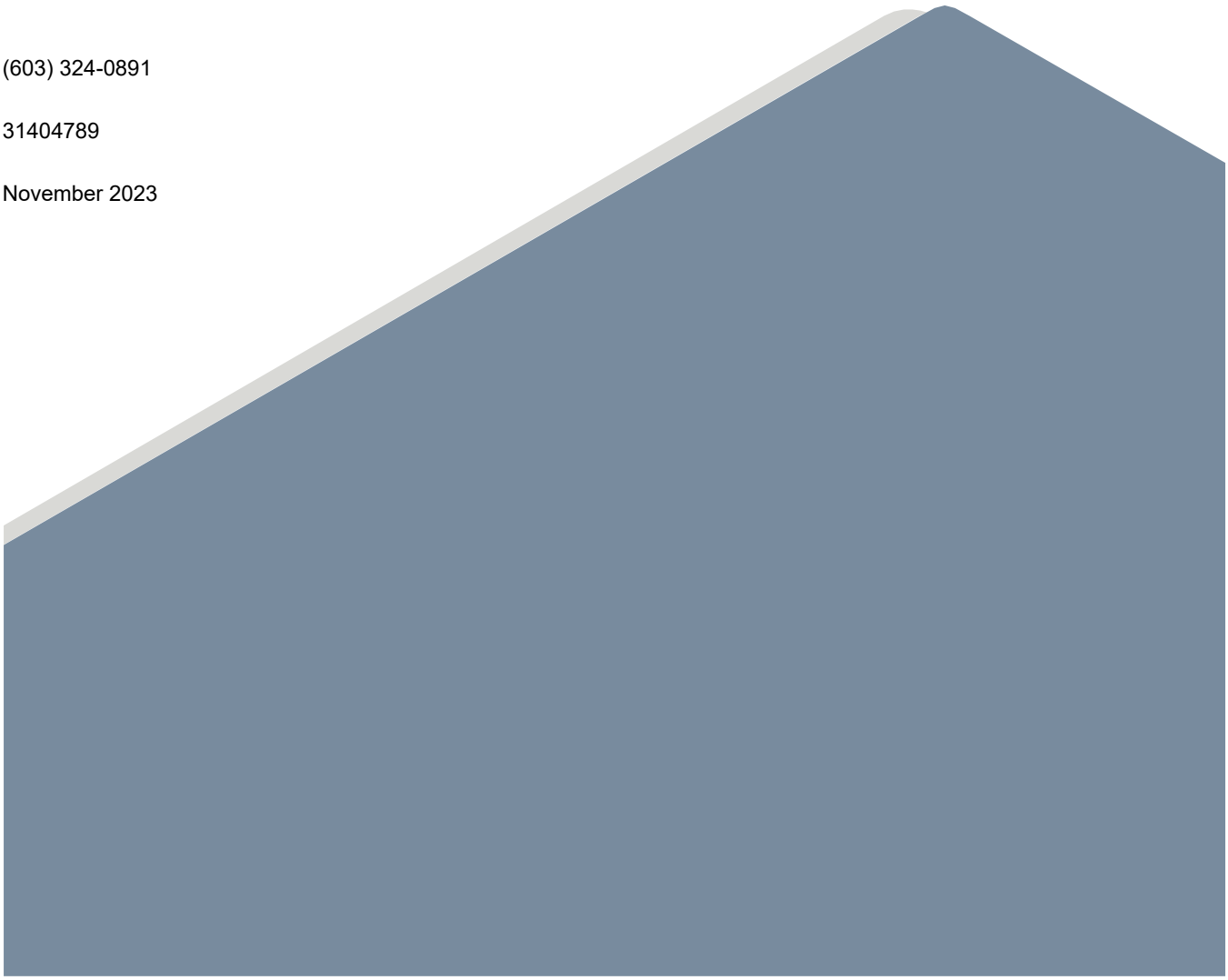
November 2023



Northern Indiana Public Service Company LLC (NIPSCO)

R. M. Schahfer Generating Station – Waste Disposal Area

Wheatfield, Indiana

Certification of Alternative Source Demonstration

40 CFR §257.95

I have personally reviewed this alternative source demonstration (ASD), the subject of which is the Waste Disposal Area (WDA) at the NIPSCO LLC R. M. Schahfer Generating Station, prepared by WSP USA Inc. and dated November 17, 2023. Based on an inquiry of those individuals immediately responsible and on supporting data that I understand to be true, accurate, and complete, I verify the information in this ASD is accurate and meets the applicable requirements of the CCR Rule. In consideration of the above, I certify to the best of my knowledge, information, and belief, that the ASD for the regulated CCR management unit referred to as the WDA meets the applicable requirements of 40 CFR §257.95.

Joseph Bernard Gormley, Jr.
Indiana Professional Engineer
License #: PE11900213

11/17/2023
Date

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APPENDICES

Appendix A: Results of Sequential Extraction Testing

1.0 INTRODUCTION

On behalf of Northern Indiana Public Service Company LLC (NIPSCO) and in accordance with 40 CFR §257.95(g)(3), WSP USA Inc. (WSP) has prepared this Alternative Source Demonstration (ASD) for the Waste Disposal Area (WDA, the coal combustion residuals (CCR) Unit) at the NIPSCO Rollin M. Schahfer Generating Station (RMSGS or Site) located at 2723 E 1500 N Road, Wheatfield, Jasper County, Indiana (see Figure 1). WSP has prepared this ASD to do the following:

1) Confirm that the latest assessment monitoring results a) are consistent with previous monitoring events, and b) continue to support the findings of the June 9, 2020, ASD for the WDA.

2) Demonstrate that a new statistically significant level (SSL) of arsenic at monitoring well GAMW-44 is related to an alternative source.

In accordance with the current Assessment Monitoring program for the WDA, WSP performed a statistical evaluation of groundwater analytical results from the eleventh (April 2023) groundwater Assessment Monitoring event. WSP's evaluation of the groundwater results for the eleventh Assessment Monitoring event confirmed that the lithium and molybdenum results are consistent with those from the previous Assessment Monitoring events, and the rationale presented in the June 9, 2020, ASD is still applicable.

In addition, WSP's evaluation indicated a new SSL of arsenic at GAMW-44. Although determination of an SSL generally indicates that the groundwater monitoring program should transition from Assessment Monitoring to Assessment of Corrective Measures, 40 CFR §257.95(g)(3) allows the owner or operator (i.e., NIPSCO) 90 days from the date of determination (August 22, 2023) to demonstrate a source other than the CCR Unit caused the SSL.

For the SSL of arsenic at GAMW-44, WSP performed an initial review of the Site history and geologic conditions which indicated the SSL was the result of a source other than the WDA. As part of supplemental Site assessment activities to support this alternative source hypothesis, WSP evaluated the results from porewater, CCR source materials, overburden, bedrock, and groundwater samples. Based on this evaluation, and in accordance with 40 CFR §257.95(g)(3), WSP provided information in this ASD to demonstrate that the SSL of arsenic at GAMW-44 is related to another source.

Specifically, this ASD includes an evaluation of geological, hydrogeological, and geochemical data regarding groundwater and soil obtained from wells installed surrounding and adjacent to the WDA, and porewater from a piezometer within the WDA. Furthermore, it provides key lines of evidence supporting the ASD for arsenic at GAMW-44, which are listed below and described in detail in Section 5.0:

1) The concentrations of key CCR indicators boron, sulfate, and total dissolved solids (TDS) at well GAMW-44 have historically been low and are currently at or below that of background wells. There are no exceedances of the upper prediction limit (UPL) or groundwater protection standard (GWPS) at GAMW-44 for any Appendix III or IV parameters other than arsenic.

2) Based on groundwater flow direction, a release of arsenic from the WDA would not be able to bypass downgradient wells GAMW-13, GAMW-14, or GAMW-43, which are in closer proximity to the WDA than GAMW-44. Wells GAMW-13 and GAMW-43 have not exhibited an SSL of arsenic. An SSL for arsenic was identified in GAMW-14 after the October 2018 and April 2019 sampling events. A qualified Indiana-licensed professional engineer certified as ASD demonstrating that the arsenic concentrations observed in GAMW-14

were due to natural variation and not a release from the WDA. Arsenic has not been identified as an SSL in this well since April 2019.

3) Since 2019, arsenic at GAMW-44 has generally shown an increasing trend, however, there is no statistical correlation with an increase in any CCR indicator parameter (e.g. boron, sulfate, TDS). Generally during this time period, sulfate at GAMW-44 has decreased while boron and lithium have remained below detection limits during six of the last seven sampling events (2020-2023).

4) Soil borings have identified arsenic in aquifer solids at concentrations within the range of natural occurrence in agreement with regional studies.

5) The increase in arsenic in groundwater at GAMW-44 statistically correlates with a decrease in groundwater oxidation reduction potential (ORP) as reducing conditions can lead to the release of arsenic into groundwater.

The following sections provide a summary of the RMSGS WDA Conceptual Site Model (CSM), a summary of ongoing Assessment Monitoring results, a description of supplemental assessment activities, and an evaluation of the supplemental assessment results that provide the key lines of evidence demonstrating an alternative source is responsible for the arsenic SSL.

2.0 CONCEPTUAL SITE MODEL

WSP developed this CSM to help frame and support the ASD assessment approach. The CSM presents WDA construction and operational history, a summary of geologic and hydrogeologic information, and a discussion of groundwater monitoring data, which together lay the groundwork for consideration and development of the ASD.

2.1 Description of the Waste Disposal Area

The WDA is an approximately 80-acre impoundment located in the southwestern corner of RMSGS as shown in Figure 2. According to NIPSCO construction drawings, the WDA is unlined and is surrounded by berms that were constructed with an approximate two-foot-wide slurry wall that extends from just below the top of the berms to the underlying shale located approximately 30 to 35 feet below ground surface (ft bgs). NIPSCO designed and constructed the slurry walls to reduce potential migration of the CCR constituents out of the WDA.

The WDA primarily received bottom ash and boiler slag that was pumped as slurries from all four active boilers. Most of the ash/slag is deposited in the northern half of the WDA, closest to the discharge points of the slurry lines. Due to the size of the unit and the settling/depositional properties of CCR materials, preliminary studies have shown little, if any, ash/slag is present in the southern half of the WDA.

2.2 Site Geology and Hydrogeology

The Site is directly underlain by unconsolidated, upper-Pleistocene (post-Wisconsin) fine-grained sand and silt and outwash deposits of the Atherton Formation, occasionally overlain by alluvial and lacustrine deposits of the Martinsville Formation (Schneider and Keller, 1970). According to Fraser and Bleur (1991), the Site was occupied during the late Pleistocene by a post-glacial lake followed by a broad, low-gradient outwash stream that deposited sand uniformly across the basin to form the Kankakee-Valparaiso Formation. WSP's interpretation of the Site geology is based on bedrock geology maps, prior reports, and CCR Final Rule-related well installation activities, and it includes the following stratigraphy:

Overburden

- Brown fine- to medium-grained sand from the ground surface to approximately 14 ft bgs
- Grayish-brown fine to medium sand from approximately 14 ft bgs to 30-35 ft bgs (coarsens with depth)

Bedrock

- Black to dark gray shale with planar cleavage (Antrim Shale). Top of bedrock is approximately 30 to 35 ft bgs near the impoundments.

Regional bedrock consists of more than 4,000 feet of sedimentary rocks that overly Precambrian granitic bedrock (Fenelon et al., 1994). This assemblage is part of the north side of the Kankakee Arch, which is the major structural feature in the Kankakee River Basin. The first 3,500 feet of sedimentary rocks overlying the granitic bedrock are Cambrian and Ordovician in age. The uppermost 300 feet of Ordovician rocks are composed of shale and minor limestones and are referred to as the Maquoketa Group. The Maquoketa Group underlies Silurian, Devonian, and Mississippian rocks, and consists of a wide variety of sedimentary layers ranging from shaley to coarse-grained carbonate rocks. This carbonate sequence is overlain by a series of shales including the Antrim Shale, a brownish-black, non-calcareous shale (Fenelon et al., 1994).

Available groundwater elevation data indicate that groundwater in the uppermost aquifer near the WDA flows to the north and northwest (and possibly northeast, immediately adjacent to the WDA). Groundwater flow direction is influenced by the slurry walls that surround the WDA and the adjacent Recycle Settling Basin and Inactive Retired Waste Disposal Basin (IRWDB) both of which are non-CCR Final Rule regulated. Hydraulic heads measured inside the slurry walls that surround the WDA are significantly higher (i.e., up to 15 feet or more) than those measured beyond the slurry wall. This contrast in potentiometric levels indicates that the slurry walls significantly impede the flow of water from the CCR Unit to the uppermost aquifer.

2.3 Groundwater Monitoring Network

NIPSCO's design of the CCR Final Rule-compliant WDA monitoring program considered the size, disposal/operational history, hydraulic influence of the slurry walls, anticipated groundwater flow direction, and saturated thickness of the uppermost aquifer. Based on the available hydrogeologic information for the WDA, groundwater mounding is occurring within the slurry walls. As a result, NIPSCO's monitoring approach for the CCR surface impoundment featured the installation of well pairs including shallow well (approximately 15 ft bgs) and deep well (approximately 35 ft bgs – to the top of shale [signified with a "B" in Figure 3]) couplets at each background and downgradient monitoring well location outside of the perimeter slurry walls as shown in Figure 3. The groundwater network is summarized in Table 1.

Table 1: Waste Disposal Area Monitoring Well Network

Background Monitoring Wells	Downgradient Monitoring Wells	Assessment Monitoring Wells
GAMW-03, GAMW-03B, GAMW-68, and GAMW-68B	GAMW-01, GAMW-01B, GAMW-12, GAMW-12B, GAMW-13, GAMW-13B, GAMW-14, and GAMW-14B	GAMW-42, GAMW-42B, GAMW-42C, GAMW-43, GAMW-43B, GAMW-44, GAMW-44B, GAMW-51, GAMW-51B, GAMW-57, GAMW-57B, GAMW-58, GAMW-58B, GAMW-59, GAMW-59B, GAMW-60, and GAMW-60B

Note:

WSP installed piezometer GAPIEZ04 in the northwest corner of the WDA within the slurry wall to assess groundwater elevations in the WDA. GAPIEZ04 is screened within the CCR materials.

3.0 ONGOING ASSESSMENT MONITORING

Between July 2016 and August 2017, WSP collected eight independent background groundwater samples from each background and downgradient well, as required by 40 CFR §257.94. The results of the background monitoring phase were used to develop appropriate background values for each constituent/monitoring well. Following completion of the eight background monitoring events, WSP collected the first Detection Monitoring groundwater samples in October 2017, and then compared the results to the calculated prediction limits to determine statistically significant increases (SSIs). Based on these results, NIPSCO established an Assessment Monitoring program in January 2018.

WSP performed the first Assessment Monitoring event in March 2018 (with verification sampling in April 2018) and submitted the samples to TestAmerica laboratory for Appendix III and IV analyses (verification was Appendix IV only). Following receipt and validation of laboratory results, WSP evaluated the results of the first Assessment Monitoring sampling event to determine the concentration of Appendix IV constituents relative to CCR Unit-specific calculated GWPSs. The GWPS is the maximum contaminant level (MCL), if an MCL exists, or the unit-specific background concentration for each analyte using a tolerance/prediction limit procedure. Based on this statistical analysis, WSP initially concluded that the only constituent demonstrating an apparent SSL was molybdenum, which exceeded the calculated GWPS (unit-specific background concentration) of 0.009 milligrams per liter (mg/L).

In 2018, however, the United States Environmental Protection Agency (USEPA) published a risk-based level for molybdenum of 0.1 mg/L, which USEPA published in the Federal Register on July 30, 2018, and became effective August 29, 2018 (CCR Final Rule Part 1 Phase 1 Addendum). Based on the new molybdenum risk-based level, WSP determined that the detected groundwater concentrations no longer exceeded the molybdenum GWPS and completed an ASD in November 2018 concluding that the molybdenum SSLs determined in August 2018 were not due to a release from the CCR Unit. The key supporting lines of evidence described in the ASD indicated that the molybdenum detected in monitoring wells downgradient of the WDA were due to a natural source and not the WDA.

WSP performed the second Assessment Monitoring event in October 2018 by collecting groundwater samples from each background and downgradient monitoring well, including the new Assessment Monitoring wells, per 40 CFR §257.95. WSP performed the statistical evaluation in February 2019 and concluded that the only constituents demonstrating apparent SSLs were arsenic, in GAMW-14, and cobalt, in GAMW-01. In May 2019, WSP prepared and certified an ASD demonstrating that the arsenic and cobalt concentrations observed in downgradient monitoring wells were due to natural variation and not a release from the WDA. These SSLs were confirmed after the third Assessment Monitoring event, performed in April 2019, and the ASD was recertified in November 2019. Subsequent decreases in both arsenic and cobalt have decreased the LCL's for both arsenic and cobalt at GAMW-14 and GAMW-01, respectively, to below the site GWPS's at both wells.

WSP performed the fourth Assessment Monitoring event in November 2019 and identified an SSL of molybdenum in well GAMW-51B. In June 2020, WSP prepared and certified an ASD demonstrating that the SSL of molybdenum and observed lithium levels above the GWPS in GAMW-51B were not due to a release from the WDA.

WSP performed the fifth Assessment Monitoring event in April/May 2020 and identified SSLs for molybdenum and lithium in well GAMW-51B. As these results were consistent with the June 2020 ASD, WSP recertified the ASD in December 2020.

WSP performed the sixth Assessment Monitoring event in October 2020 and identified SSLs for molybdenum and lithium in well GAMW-51B and molybdenum in GAMW-60B. GAMW-60B was installed downgradient of GAMW-51/51B in 2019 to further assess the nature and extent of groundwater quality further downgradient of the WDA. As these results were consistent with the primary lines of evidence presented in the June 2020 ASD, WSP recertified the ASD in May 2021.

Furthermore, WSP confirmed the molybdenum and lithium SSLs after the seventh (April 2021), eighth (September 2021), ninth (May/June 2022), and tenth (October/November 2022), Assessment Monitoring events. As these results were consistent with the June 2020 ASD, WSP recertified the ASD after each of these monitoring events.

WSP performed periodic updates of the background datasets that included the incorporation of additional background data to improve statistical power and accuracy by providing a more conservative estimate of the true background populations. The CCR Rule Groundwater Monitoring Implementation Manual (GMPIM; Golder, 2017) allows for the statistical limits to be updated after four to eight new measurements are available (i.e., every two to four years of semi-annual sampling). WSP incorporated the new data into the background dataset and updated the GWPS in both March 2020 and September 2022. The September 2022 GWPS included the first four data points collected from GAMW-68 and GAMW-68B.

WSP performed the eleventh Assessment Monitoring event (April 2023) after the background dataset was updated. Based on a review of the results from the eleventh Assessment Monitoring event, WSP confirmed the molybdenum and lithium SSLs from previous Assessment Monitoring events were consistent with other previous results and the June 2020 ASD. In addition, WSP identified an arsenic SSL at property boundary well GAMW-44 above the unit-specific background concentration of 0.019 mg/L.

4.0 SUPPLEMENTAL ASSESSMENT ACTIVITIES

The potential groundwater impacts downgradient of the WDA were assesed through supplemental assessment activities between July 24 and October 31, 2018 in accordance with the RMSGS GMPIM (Golder, 2017). The following sections summarize those assessment activities.

4.1 Aquifer Material Samples

WSP collected composite overburden samples (i.e., two-foot interval) from monitoring wells GAMW-42C, GAMW-57B, and GAMW-58B at depths ranging from 10-17 ft bgs. Samples were submitted to the Eurofins Knoxville, TN laboratory that performed a seven-step sequential extraction procedure (SEP) based on Tessier et al. (1979) to identify the origin of arsenic in soils and determine its potential environmental mobility. Results of the SEP testing are provided in Appendix A. The SEP extraction method can be briefly summarized as follows:

Table 2. Sequential Extraction Procedure Steps

SEQUENTIAL EXTRACTION PROCEDURE				
ENVIRONMENTALLY AVAILABLE / NON-ENVIRONMENTALLY AVAILABLE (Increasing Availability)	Step 1	Increasing Extraction Strength	Exchangeable Fraction:	This extraction includes trace elements that are electrostatically adsorbed to overburden minerals
	Step 2		Carbonate Fraction:	This extraction targets trace elements that are adsorbed or otherwise bound to carbonate minerals
	Step 3		Non-Crystalline Materials Fraction:	This extraction targets trace elements that are complexed by amorphous minerals
	Step 4		Metal Hydroxide Fraction:	This extraction targets trace elements bound to hydroxides of iron, manganese, and/or aluminum
	Step 5		Organic Fraction:	This extraction targets trace elements strongly bound via chemisorption to organic material
	Step 6		Acid/Sulfide Fraction:	The extraction is used to identify trace elements precipitated as sulfide minerals
	Step 7		Residual Fraction:	Trace elements remaining in the overburden after the previous extractions will be distributed between silicates, phosphates, and refractory oxide

Steps 1 through 7 represent an increasing amounts of target metals that can be transferred from the solid phase into solution. For example, metals bound in the carbonate fraction, or that are exchangeable, are much more likely to become mobile due to changes in groundwater chemistry than metals bound within a sulfide or residual fraction. The total concentration of a metals measured from all seven steps can be compared to the concentration determined from the total metal analysis for compositional accountability. Metals extracted in Steps 1 through 5 are considered environmentally available, whereas metals extracted in Steps 6 and 7 are present in non-environmentally available fractions and are not expected to be released under conditions typically encountered in aquifers, except in the case of acidification or other excursions from typical groundwater conditions (Tessier et al. 1979).

For the composite samples, the SEP results indicated the presence of naturally-occurring arsenic in soils in fractions 3 and 4 at each of the three monitoring well locations (Figure 4). Specifically, arsenic was reported in soils at concentrations ranging from 2 to 3.9 milligrams per kilogram soil (mg/kg) and was predominantly (62 to 87%) present in the environmentally-available fractions, indicating a naturally occurring source for arsenic in aquifer materials.

4.2 Porewater Assessment

WSP field personnel collected porewater (i.e., water in direct contact with CCR materials) samples in accordance with the RMSGS GMPIM (Golder, 2017). Porewater samples were collected in August, September, and October 2018 and were analyzed for Appendix III and IV metals and other groundwater quality parameters. Porewater analytical results are provided in Table 3.

5.0 EVALUATION OF SUPPLEMENTAL ASSESSMENT RESULTS

WSP evaluated the results of the supplemental assessment actitivities to determine if the geochemical conditions at well GAMW-44 indicate the SSL of arsenic is 1) related to a release from the WDA or 2) the result of naturally occuring arsenic that is being released into groundwater. Based upon this evaluation, WSP determined the following:

1) *The concentrations of key CCR indicators boron, sulfate, and TDS at well GAMW-44 have historically been low and are currently at or below that of background wells. There are no exceedances of the UPL or GWPS at GAMW-44 for any Appendix III or IV parameters other than arsenic.*

While arsenic occurs at an SSL above the GWPS, key CCR indicators boron, sulfate, and TDS have remained low at well GAMW-44 (Figures 5a-c). During the most recent sampling event, the arsenic level in well GAMW-44 was measured as 0.058 mg/L, putting it above the GWPS as well as an SSL. However, the maximum measured arsenic concentration at well GAMW-44, 0.095 mg/L, was measured in April of 2021 and arsenic concentrations have varied since sampling of the well began (Figure 6).

Additionally, boron concentrations at well GAMW-44 have remained below that of background well GAMW-03 (0.13-0.35 mg/L) and the laboratory reporting limit of 0.1 mg/L since sampling of the well began. The maximum boron concentration measured in groundwater at well GAMW-44 was 0.05 J mg/L in June 2018, which is less than half the lowest concentration in background well GAMW-03 (0.13 mg/L in September 2022).

In addition to boron, other CCR indicator parameters such as sulfate and Total Dissolved Solids (TDS) were not measured in groundwater at elevated levels in well GAMW-44 above background levels (Figures 5a-c).

2) *A release of arsenic from the WDA would not be able to bypass downgradient wells GAMW-13, GAMW-14, or GAMW-43, which are in closer proximity to the WDA than GAMW-44. These wells have not exhibited an SSL of arsenic.*

GAMW-44 is the only assessment monitoring well that currently exhibits an arsenic SSL. However, there are multiple other assessment monitoring wells in closer proximity to the WDA than GAMW-44 that do not currently exhibit arsenic SSLs including wells GAMW-13, GAMW-14, and GAMW-43 (Figure 3). Thus, based on groundwater flow direction, a release of arsenic would first be identified at GAMW-13, GAMW-14, or GAMW-43 before GAMW-44 if the WDA was the source. In addition, porewater at the WDA (GAPIEZ-04) has been sampled on three occasions, and on all three occurrences, the arsenic level at the WDA was below the GWPS (0.019 mg/L; Figure 6).

3) *Since 2019, arsenic at GAMW-44 has generally shown an increasing trend, however, there is no statistical correlation with an increase in any CCR indicator parameter (e.g., boron, sulfate, TDS). Generally during this time period, sulfate at GAMW-44 has decreased while boron and lithium have remained below detection limits during six of the last seven sampling events (2020-2023).*

Arsenic at GAMW-44 has shown a general increasing trend since 2019. However, the increase in arsenic does not coincide with increases in any other primary or secondary CCR indicator parameters (i.e., boron, calcium, chloride, lithium, sulfate, TDS). Specifically, the primary CCR indicator parameters boron and lithium have been below their detection limits for six of the last seven sampling events (Figures 5a and 7). Therefore, it is evident that the SSL of arsenic at GAMW-44 shows no statistical relationship with any indication of a CCR release.

4) *Soil borings have identified arsenic in aquifer solids at concentrations within the range of natural occurrence in agreement with regional studies.*

Multiple soil borings at locations where CCR influence has never been observered surrounding GAMW-44 confirm the presence of naturally occuring arsenic in the aquifer materials ranging up to 3.9 mg/kg (Figure 4). The concentration of arsenic measured in aquifer materials at these locations is well within the expected range of naturally occuring arsenic in soilds in the Eastern United States, which averages 4.8 mg/kg (Smith and Huyk 1999).

5) *The increase in arsenic in groundwater at GAMW-44 statistically correlates with a decrease in groundwater ORP as reducing conditions can lead to the release of arsenic into groundwater.*

SEP results indicate the majority of the arsenic was present in the amorphous and metal hydroxide phases (Figure 4), that are subject to mobilization/release into groundwater when aquifer conditions change, specifically if groundwater pH or oxidation/reduction potential (ORP) decreases (Smith 1999). At GAMW-44, the increase in arsenic is inversely correlated with a decrease in groundwater ORP ($r = -0.57$, $p = < 0.05$, see Table 4), indicating that the arsenic SSL at GAMW-44 is the result of variations in groundwater geochemistry rather than a release from the WDA.

6.0 CONCLUSIONS & RECOMMENDATIONS

WSP's evaluation of the groundwater results from the eleventh Assessment Monitoring event confirms that the lithium and molybdenum results are consistent with those from the previous Assessment Monitoring events, and the rationale presented in the June 9, 2020, ASD is still applicable.

Further evaluation of supplemental assessment results confirmed that the SSL of arsenic at GAMW-44 is not due to a release from the WDA, but rather is due to naturally occurring arsenic in the subsurface. The four key lines of evidence and supporting details described above indicate that the arsenic observed in monitoring wells downgradient of the WDA are due to natural variations in groundwater geochemistry and not from a release from the WDA.

These evaluations along with the lines of evidence serve as the ASD prepared for the WDA in accordance with 40 CFR 257.95(g)(3)(ii) and supports the finding that the previous lithium and molybdenum SSLs and the arsenic SSL determined on August 22, 2023, are not due to a release from the CCR Unit. Therefore, no further action (i.e., Assessment of Corrective Measures) is warranted, and the RMSGS WDA will remain in Assessment Monitoring.

7.0 REFERENCES

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Table 3: Porewater Analytical Results
Waste Disposal Area Alternative Source Demonstration
NIPSCO LLC R. M. Schahfer Generating Station

Location	GAPIEZ04		
Sample Date	2018-08-09	2018-09-13	2018-10-30
Fraction	D	T	T
Analyte			
Alkalinity, Total	210 J	220	220
Antimony	0.002 U	0.002 U	0.002 U
Arsenic	0.012	0.015	0.015
Barium	0.047	0.051	0.059
Beryllium	0.001 U	0.00033 J	0.001 U
Boron	0.86	0.71	0.86
Cadmium	0.001 U	0.001 U	0.001 U
Calcium	140	160	170
Chloride	19	21	18
Chromium	0.0022 J+	0.002 U	0.002 U
Cobalt	0.00026 J	0.001 U	0.001 U
Ferric Iron	0.76 J	0.58 J	0.56
Ferrous Iron	0.1 U	0.1 U	0.11 J
Fluoride	0.48	0.7 J	0.61
Hardness		470	
Lead	0.001 U	0.001 U	0.001 U
Lithium	0.008 U	0.008 U	0.008 U
Magnesium	20	20	20
Mercury	0.0002 U	0.0002 U	0.0002 U
Molybdenum	0.0028 J	0.0028 J	0.0031 J
Nitrate	0.053 J		
Nitrate as N		0.19 J	
Nitrite as N		0.05 UJ	
Nitrogen, Nitrate-Nitrite			0.05 U
Phosphorus (as phosphate)	3	2.4	3.9
pH	7.35	7.27	7.71
Potassium	4.8 J	5	4.8 J
Selenium	0.005 U	0.005 U	0.005 U
Sodium	28	22	27
Sulfate	280	280	170
Total Dissolved Solids	670	660	710

Notes:
Results (except pH) reported in milligrams per liter (mg/L)
pH results reported in standard units (SU)
D: Dissolved
T: Total
J: Indicates result is estimated.
U: Indicates result was not detected above the laboratory method detection limit, the laboratory reporting limit is provided.

Prepared by: GRD
Checked by: DFSC
Reviewed by: JBG

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW01																	
Sample Date		2016-07-12	2016-09-08		2016-11-09	2017-01-09	2017-02-28	2017-04-25	2017-06-28	2017-08-22	2017-10-03	2018-03-12	2018-04-19	2018-10-23	2019-04-23		2019-11-06	2020-05-06	2020-10-21
Sample Type		N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Chemical Name	Unit																		
CCR Appendix III																			
Boron	mg/L	0.11	1.2 J	0.36 J	0.15 J	0.2 U	0.2 U	0.5	1.2	1	0.74		0.3	0.29	1.1	1.1	1.6	1.2	0.71
Calcium	mg/L	65	240 J	83 J	74	71	83	110	110	81	81		87	77	110	110	94 J-	91	89.6
Chloride	mg/L	4.3	28 J	12 J	5.3	5.6	8.3	18	18	12	16		10	8.1	20	20	13	9.5	11.3
Fluoride	mg/L	0.34 J+	0.25 J	0.38 J	0.34 J	0.34 J	0.3 J	0.26 J	0.35 J	0.41 J	0.38 J	0.28 J	0.32 J	0.3	0.31 J+	0.31 J+	0.41	0.36	0.36
pH	SU	7.18		6.5	6.93	7.33	7.26	7.16	6.5	7.24	7.18	7.24	7	6.78		6.89	7.2	7.54	7.3
Sulfate	mg/L	54 J-	500 J	100 J	62	52	54	100	200	130	110		50	68	220	230	180	136	100
Total Dissolved Solids	mg/L	280	1100 J	380 J	320	280	340	480	580	420	420		360	350	600	630	520	395	387
CCR Appendix IV																			
Antimony	mg/L	0.00048 J	0.001 J	0.00068 J	0.001 J	0.0016 J	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U
Arsenic	mg/L	0.019	0.014 J	0.039 J	0.024	0.013	0.01	0.012	0.023	0.03		0.02	0.03	0.035	0.015	0.014	0.013	0.01	0.019
Barium	mg/L	0.059	0.078 J	0.057 J	0.064	0.053	0.07	0.065	0.093	0.077		0.057	0.052	0.052	0.088	0.087	0.069	0.065	0.059
Beryllium	mg/L	0.00099 J	0.00068 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.0014	0.001 U	0.0002 U	0.00020 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00038 J		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.00038 J	0.002 U	0.00037 J	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U
Cobalt	mg/L	0.001 U	0.00053 J	0.0011	0.00087 J	0.00068 J	0.00074 J	0.0016	0.0016	0.001		0.0011	0.001	0.00075 J	0.0016	0.0017	0.001	0.001	0.0013
Fluoride	mg/L	0.34 J+	0.25 J	0.38 J	0.34 J	0.34 J	0.3 J	0.26 J	0.35 J	0.41 J	0.38 J	0.28 J	0.32 J	0.3	0.31 J+	0.31 J+	0.41	0.36	0.36
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.00023 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00065 J		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U
Lithium	mg/L	0.0031 J	0.008 U	0.008 U	0.008 U	0.0031 J	0.0015 J	0.003 J	0.0042 J	0.0037 J		0.0019 J		0.0028 J	0.0021 J	0.0023 J	0.0025 J	0.008 U	0.0080 U
Mercury	mg/L	0.0002 U	0.00035	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ		0.0002 U		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U
Molybdenum	mg/L	0.011	0.025	0.022	0.011	0.01 U	0.01 U	0.017	0.033	0.045		0.014	0.016	0.015	0.033	0.033	0.031	0.018	0.019
Radium, Total	pci/l	5 U	0.399 U	0.771	0.403	0.501 U	0.446 U	0.551	0.692	0.835		0.741 J+	0.475	1.45 J+	1.21	0.781		1.6	
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.00075 J	0.0018 J	0.001 J	0.0016 J	0.0031 J	0.0017 J		0.0016 J		0.001 J	0.0075	0.0077	0.0057	0.0018	0.0010 U
Thallium	mg/L	0.00018 J	0.00035 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00032 J		0.001 U		0.001 U	0.001 U	0.00021 J	0.00046 J	0.001 U	0.0010 U
Sample Parameters																			
DO	mg/L	0.14		0.9	0.18	0.25	0.17	0.07	0.61	0.32	0.19	0.28	0.14	0.22		1.97	0.31	0.31	0.39
ORP	millivolts	-92.6		-21.4	-120.7	-110.5	-127.2	-102.8	98.3	-43.1	-48.2	-85.1	284.1	-130.2		27.1	-217.5	-70.9	-35.4
pH	SU	7.18		6.5	6.93	7.33	7.26	7.16	6.5	7.24	7.18	7.24	7	6.78		6.89	7.2	7.54	7.53
SC	uS/cm	448		604	512	416	508	707	844	650	673	395	550	594		624	547	713	656
TEMP	deg c	13.9		17.8	16.2	11.2	9.73	10.8	13.8	17	17.2	9.2	9.4	16.9		2.4	15.9	10.3	16.2
TURB	ntu	1.25		2.12	3.92	4.79	3.86	3.69	4.22	2.22	2.8	4.61	4.05	4.81		4.48	3.8	4.79	2.81

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW01					GAMW01B										
Sample Date		2021-04-14	2021-09-16	2022-04-06	2022-09-23	2023-04-13	2018-09-06	2018-10-23	2019-04-23	2019-11-06	2020-05-06	2020-10-21	2021-04-14	2021-09-16	2022-04-06	2022-09-23	2023-04-13
Sample Type		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Chemical Name	Unit																
CCR Appendix III																	
Boron	mg/L	0.78	0.24	0.44	0.64	1	0.4	0.44	0.35	0.38	0.33	0.34	0.35	0.29	0.31	0.27	0.34
Calcium	mg/L	95.2	76.7	73.7	88.8	97.3	110	100	110	94 J-	99	104	103	112	103	96.9	107
Chloride	mg/L	10.1	5.9	10.3	14.7	14.8	21	19	21	19	18.8	19.9	20.8	18.6	18.5	17.4	23.9
Fluoride	mg/L	0.29	0.36 J-	0.27	0.35	0.34	0.17 J	0.14	0.14 J+	0.15	0.14	0.12	0.076	0.094 J-	0.14	0.17	0.17
pH	SU	7.11	6.61	7.2 J	7.3 J	7.2 J	7.01	6.74	6.98	6.94	7.3	7.1	6.96	6.5	7 J	7.2 J	7.1 J
Sulfate	mg/L	157	42.3	84.4	117	152	72	69	73	67	69.8	74.2	85.2	69.3	58.3	60.3	66.1
Total Dissolved Solids	mg/L	574	294	384	423	471	450	430	490	440	392	423	450	443	427	418	472
CCR Appendix IV																	
Antimony	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.00015 J	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	8E-05 J
Arsenic	mg/L	0.012	0.02	0.0073	0.0098	0.0066	0.00077 J	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.0003 J	0.00031 J	0.0003 J
Barium	mg/L	0.051	0.049	0.039	0.052	0.062	0.19	0.17	0.19	0.15	0.17	0.16	0.17	0.17	0.17	0.15	0.19
Beryllium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00036 J	0.001 U	0.00086 J	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Cadmium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	2.5E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.00048 J	0.00044 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.00047 J	0.00045 J
Cobalt	mg/L	0.0019	0.001	0.0046	0.004	0.0027	0.00056 J	0.00027 J	0.00033 J	0.00019 J	0.001 U	0.0010 U	0.001	0.001 U	0.00023 J	0.00036 J	0.00024 J
Fluoride	mg/L	0.29	0.36 J-	0.27	0.35	0.34	0.17 J	0.14	0.14 J+	0.15	0.14	0.12	0.076	0.094 J-	0.14	0.17	0.17
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	4E-05 J
Lithium	mg/L	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.0039 J	0.0046 J	0.0047 J	0.0042 J	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.011	0.0076	0.012	0.011	0.018	0.0015 J	0.01 U	0.0011 J	0.01 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.0014	0.0016	0.0011
Radium, Total	pci/l	0.642 U		1.35 U	2.07 U	1.34 UJ	2.16	2.62 J+	2.11		1.27 U		2.02		2.36 U	2.86	2.19 J-
Selenium	mg/L	0.01	0.001 U	0.0025	0.0027	0.011	0.001 J	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	9.6E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																	
DO	mg/L	0.6	0.49	0.61	0.26	0.18	0.62	0.23	1.06	0.32	0.1	0.43	0.51	0.51	0.48	0.05	0.17
ORP	millivolts	-37.2	-240.2	-74.5	-62	-82.1	-96.2	-111.7	-23.6	-196.7	-99.3	-73.8	-88	-217.6	-104.2	-84.4	-65.6
pH	SU	7.11	6.61	7.09	7.25	7.92	7.01	6.74	6.98	6.94	7.3	7.25	6.96	6.5	6.97	7.25	7.05
SC	uS/cm	721	524	620	592	455	684	687	563	468	734	747	752	705	750	551	501
TEMP	deg c	9.7	18.23	9.1	16.9	9.4	13.9	13.9	9.88	13.8	12.7	13.3	12.1	14.36	12.5	13.8	12.4
TURB	ntu	4.06	3.51	1.98	3.75	4.38	4.16	2.41	3.15	1.2	4.66	1.01	3.19	2.19	3.98	1.63	3.04

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW03																	
Sample Date		2016-07-13	2016-09-08	2016-11-08	2017-01-09		2017-03-01	2017-04-26	2017-06-28	2017-08-23		2017-10-04	2018-03-13	2018-04-20	2018-10-24		2019-04-25	2019-11-06	2020-05-08
Sample Type		N	N	N	FD	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N
Chemical Name	Unit																		
CCR Appendix III																			
Boron	mg/L	0.23	0.24	0.25	0.24	0.22	0.22	0.23	0.21	0.2	0.2	0.22		0.2	0.28	0.26	0.16	0.35	0.3
Calcium	mg/L	83	87	100	110	94	100	110	87	75	77	87		93	97	94	84	110 J-	97.2
Chloride	mg/L	7.7	8.6	10	9.1	9.1	8.1	6.8	10	8.2	8.3	9		4.9	22	7.7	2.4	6.5	4.4
Fluoride	mg/L	0.15 J+	0.19 J	5 U	0.12 J	0.12 J	0.14 J	0.13 J	0.2 J	0.17 J	0.18 J	0.12 J	0.16 J	0.2 J	0.21	0.15	0.2	0.17	0.18 J-
pH	SU	6.85	6.62	6.53		6.69	6.66	6.64	6.76		7.1	6.9	6.61	7.13		7.37	6.94	6.74	7.17
Sulfate	mg/L	100 J-	100	110	110	110	120	130	83	77	77	93		110	67	100	86	150	101
Total Dissolved Solids	mg/L	400	390	500	440	430	450	510	420	370	370	430		380	440	440	350	490	388
CCR Appendix IV																			
Antimony	mg/L	0.00023 J	0.00091 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.001 U
Arsenic	mg/L	0.012	0.011	0.011	0.01	0.01	0.0076	0.0076	0.015	0.012	0.013		0.018		0.005 U	0.013	0.0035 J	0.016	0.0061
Barium	mg/L	0.087	0.096	0.11	0.11 J	0.081 J	0.087	0.091	0.071	0.079	0.079		0.074		0.11	0.1	0.071	0.11	0.081
Beryllium	mg/L	0.00055 J	0.00053 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Cadmium	mg/L	8.8E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cobalt	mg/L	0.0014	0.0043	0.01	0.011	0.011	0.013	0.015	0.0037	0.0018	0.0019		0.0038		0.001 U	0.0037	0.0099	0.0048	0.0076
Fluoride	mg/L	0.15 J+	0.19 J	5 U	0.12 J	0.12 J	0.14 J	0.13 J	0.2 J	0.17 J	0.18 J	0.12 J	0.16 J	0.2 J	0.21	0.15	0.2	0.17	0.18 J-
Lead	mg/L	0.001 U	0.001 U	0.00016 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00052 J	0.00045 J	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.0064 J	0.008 U	0.008 U	0.0042 J	0.0044 J	0.0025 J	0.0045 J	0.0063 J	0.0067 J	0.0069 J		0.006 J		0.008 U	0.0074 J	0.0038 J	0.0058 J	0.008 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ		0.0002 U		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.0087 J	0.009 J	0.01 U	0.012 J+	0.01 U	0.01 U	0.0082 J	0.0084 J	0.0069 J	0.0076 J		0.0063 J		0.0065 J	0.0082 J	0.0071 J	0.0063 J	0.011
Radium, Total	pci/l	5 U	0.696	0.873 J+	0.53 U	0.765	0.385 U	0.399	0.302 U	0.346 U	0.427 U		0.49 J+		1.11 J+	1.38 J+	0.373 U		1.88
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.00085 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U		0.005 U	0.005 U	0.005 U	0.005 U	0.001 U
Thallium	mg/L	0.001 U	0.00028 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																			
DO	mg/L	0.38	0.61	0.24		0.71	1.07	0.73	0.61		0.22	0.29	1.3	0.9		0.99	1.1	0.43	1.02
ORP	millivolts	186.5	7.4	-30.2		-34	-28.5	-21.7	-24.1		-28.5	-83.1	-76.4	-98.2		-283.8	40.1	-182.6	14.8
pH	SU	6.85	6.62	6.53		6.69	6.66	6.64	6.76		7.1	6.9	6.61	7.13		7.37	6.94	6.74	7.17
SC	uS/cm	599	630	711		586	588	760	550		583	655	369	572		675	352	510	675
TEMP	deg c	13.4	16.2	15.5		10.8	9.02	10.4	12.7		15.2	16.1	8.6	7.9		16.2	3.28	15	9.1
TURB	ntu	2.72	4.41	2.92		4.58	4.68	4.42	4.5		2.51	4.18	4.66	4.96		3.55	3.49	4.41	13.3

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW03						GAMW03B												
	Sample Date	2020-10-22	2021-04-14	2021-09-17	2022-04-05	2022-09-26	2023-04-14	2016-07-13	2016-09-08	2016-11-08	2017-01-10	2017-03-01	2017-04-26	2017-06-28	2017-08-23	2017-10-04	2018-03-13	2018-04-20	2018-09-06	
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	0.18	0.22	0.13	0.23	0.13	0.25	0.18	0.18	0.2 U	0.2 U	0.21	0.23	0.25	0.27	0.28		0.3	0.32	0.28
Calcium	mg/L	78.3	90.3	70.2	97.5	68.1	95.4	98	100	110	98	110	110	110	99	95		110	100	99
Chloride	mg/L	6.6	4.3	4.2	3.3	3.3	2.8	14	13	15	16	20	20	22	21	25		23	24	25
Fluoride	mg/L	0.14	0.13	0.2	0.19	0.18	0.22	0.25 J+	0.23 J	5 U	0.24 J	0.23 J	0.2 J	0.24 J	0.24 J	0.21 J	0.2 J	0.22 J	0.23 J	0.23 J
pH	SU	7.0	6.77	6.9	7.2 J	7.5 J	7.6 J	7.01	6.74	6.53	7.08	7.04	6.97	6.81	7.29	7.07	6.83	7.12		7.1
Sulfate	mg/L	70.3	97.5	40.2	104	38.1	101	58 J-	59	58	77	67	67	66	68	84		66	64	64
Total Dissolved Solids	mg/L	317	390	298	395	278	403	420	410	420	440	450	480	510	450	460		420	470	450
CCR Appendix IV																				
Antimony	mg/L	0.0010 U	0.001 U	0.001 U	0.00029 J	0.001 U	0.00056 J	0.00019 J	0.00033 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U
Arsenic	mg/L	0.014	0.0094	0.019	0.0048	0.017	0.0027	0.0015 J	0.0012 J	0.0009 J	0.0013 J	0.005 U	0.00085 J	0.00087 J	0.005 U		0.005 U		0.005 U	0.005 U
Barium	mg/L	0.086	0.074	0.08	0.085	0.077	0.082	0.11	0.1	0.11	0.096	0.11	0.11	0.11	0.12		0.13		0.12	0.12
Beryllium	mg/L	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00044 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U
Cadmium	mg/L	0.00020 U	0.0002 U	0.0002 U	6.1E-05 J	0.0002 U	7E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U
Chromium	mg/L	0.0020 U	0.002 U	0.002 U	0.00043 J	0.00032 J	0.00039 J	0.002 U	0.002 U	0.002 U	0.00033 J	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U
Cobalt	mg/L	0.0012	0.0055	0.001 U	0.0059	0.00075 J	0.0015	0.001 U	0.00031 J	0.001 U	0.00017 J	0.001 U	0.00038 J	0.00021 J	0.001 U		0.00024 J		0.00034 J	0.00036 J
Fluoride	mg/L	0.14	0.13	0.2	0.19	0.18	0.22	0.25 J+	0.23 J	5 U	0.24 J	0.23 J	0.2 J	0.24 J	0.24 J	0.21 J	0.2 J	0.22 J	0.23 J	0.23 J
Lead	mg/L	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00016 J	0.001 U	0.001 U	0.00035 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U
Lithium	mg/L	0.0087	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.0014 J	0.008 U	0.008 U	0.0011 J	0.0011 J	0.008 U	0.008 U	0.008 U		0.008 U		0.008 U	0.008 U
Mercury	mg/L	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ		0.0002 U		0.0002 U	0.0002 U
Molybdenum	mg/L	0.010	0.011	0.0084	0.011	0.0087	0.01	0.0044 J	0.0043 J	0.01 U	0.01 U	0.01 U	0.0045 J	0.0052 J	0.0055 J		0.0066 J		0.0067 J	0.0067 J
Radium, Total	pci/l		0.158 U		1.61 U	1.7 UJ	1.54 U	0.943	1.15	1.36 J+	1.03	0.62	0.449	1	0.643		1.99 J+		1.14	1.06
Selenium	mg/L	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00072 J	0.005 U	0.005 U	0.005 U	0.00066 J	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U		0.005 U	0.0014 J
Thallium	mg/L	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	0.54	1.47	0.27	2.49	0.23	0.55	0.42	1.11	0.32	0.48	0.41	0.15	0.38	0.31	0.17	0.4	0.19		1.12
ORP	millivolts	2.6	-33.4	-225.9	-71.6	-249	41.7	196.3	-26.8	-61.4	-98.9	-86.2	-77.9	-49.1	-34.5	-94.7	-85.2	-95.1		-66.2
pH	SU	6.9	6.77	6.9	6.71	6.74	6.94	7.01	6.74	6.53	7.08	7.04	6.97	6.81	7.29	7.07	6.83	7.12		7.1
SC	uS/cm	576	605	479	413	380	461	676	680	6.84	678	631	737	656	730	728	515	778		669
TEMP	deg c	15.9	9.5	16.85	8.2	16.42	10.82	12.4	13.2	13.2	12.2	11.63	12.1	12.2	13	13.3	11.3	4.1		13
TURB	ntu	4.09	5.99	2.8	4.87	2.97	3.38	3.66	4.73	2.84	2.02	3.1	2.51	1.84	1.16	0.81	4.59	4.36		3.55

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter
"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW03B										GAMW12								
	Sample Date	2018-10-24	2019-04-26	2019-11-06	2020-05-12	2020-10-22	2021-04-15	2021-09-17	2022-04-05	2022-09-26	2023-04-14	2016-07-12		2016-09-07	2016-11-08	2017-01-09	2017-02-28	2017-04-25	2017-06-28	2017-08-23
	Sample Type	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	0.29	0.25	0.31	0.31	0.25	0.25	0.27	0.31	0.31	0.35	0.07	0.073	0.075	0.2 U	0.2 U	0.2 U	0.092 J	0.2 U	0.2 U
Calcium	mg/L	98	90	89 J-	104	92.7	96.4	102	103	97.4	102	88	93	91	97	90	97	97	100	89
Chloride	mg/L	22	24	24	22.6	17.0	20.1	23.1	22.6	24.1	25	2.3	3.8	6.1	9.6	11	10	10	7.6	5.2
Fluoride	mg/L	0.21	0.22	0.26	0.23	0.23	0.2	0.23	0.2	0.21	0.19	0.11 J+	0.24 J+	0.23 J	5 UO	0.23 J	0.19 J	0.17 J	0.21 J	0.23 J
pH	SU	7.77	7.15	7.08	7.31	7.2	7.03	6.97	7 J	7.1 J	7.5 J		6.75	6.85	6.81	6.87	6.89	6.87	6.67	6.69
Sulfate	mg/L	67	74	80	77.1	66.8	58	78.6	101	102	111	5.9 J-	7.5 J-	15	6.8	17	12	14	11	11
Total Dissolved Solids	mg/L	450	460	410	412	372	400	439	448	446	465	380	390	390	430	400	410	390	400	400
CCR Appendix IV																				
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	8.6E-05 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00047 J	0.00043 J	0.00043 J	0.0086	0.0097	0.0079	0.011	0.0058	0.0058	0.0059	0.016	0.017
Barium	mg/L	0.12	0.1	0.11	0.12	0.10	0.11	0.12	0.11	0.11	0.11	0.14	0.14	0.15	0.14	0.11	0.14	0.12	0.14	0.13
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.00021 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	7.5E-05 J	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.00051 J	0.00046 J	0.00044 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0007 J	0.002 U	0.002 U	0.002 U
Cobalt	mg/L	0.001 U	0.0005 J	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00024 J	0.00036 J	0.00041 J	0.0026	0.0029	0.0041	0.0025	0.0032	0.003	0.0028	0.0031	0.0027
Fluoride	mg/L	0.21	0.22	0.26	0.23	0.23	0.2	0.23	0.2	0.21	0.19	0.11 J+	0.24 J+	0.23 J	5 UO	0.23 J	0.19 J	0.17 J	0.21 J	0.23 J
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.008 U	0.008 U	0.008 U	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.0025 J	0.003 J	0.008 U	0.008 U	0.0029 J	0.0026 J	0.0032 J	0.0034 J	0.003 J
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00019 J+	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ
Molybdenum	mg/L	0.0066 J	0.0068 J	0.0074 J	0.0078	0.0072	0.0051	0.0066	0.0065	0.0067	0.0065	0.01 U	0.002 J	0.0037 J	0.01 U	0.01 U	0.01 U	0.004 J	0.003 J	0.0029 J
Radium, Total	pci/l	1.26 J+	0.596		1.33 U		1.08 U		1.37 U	1.88 U	1.58 U	0.921	0.735	0.823	2.14 J+	0.721	0.79	0.441	0.6	1.42
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.00054 J	0.0007 J	0.005 U	0.005 U	0.005 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	0.5	1.7	0.58	0.2	0.39	0.95	0.28	0.21	0.19	0.47		0.57	2.06	0.25	0.31	0.25	0.1	0.4	0.32
ORP	millivolts	-294.4	7.6	-181.9	-86.4	-11.2	-81.8	-255.4	-166.7	-271.3	-58.1		-47.5	-44.9	-71.8	-50.3	-74	-66.7	-75.8	-30.1
pH	SU	7.77	7.15	7.08	7.31	7.32	7.03	6.97	6.92	6.81	7		6.75	6.85	6.81	6.87	6.89	6.87	6.67	6.69
SC	uS/cm	719	527	443	732	670	695	634	508	530	556		634	688	660	569	605	664	645	667
TEMP	deg c	13.69	9.03	13.1	11.5	13.2	11.8	13.22	11.67	13.31	13.08		14.7	19.5	16.2	10.6	9.38	10.8	14.3	17.2
TURB	ntu	3.54	3.56	1.92	4.44	3.56	4.08	3.19	3.41	4.06	4.44		2.97	3.11	4.9	4.44	4.61	4.46	3.78	3.33

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
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"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW12													
Sample Date		2017-10-04	2018-03-13	2018-04-20	2018-10-23	2019-04-24	2019-11-07		2020-05-11	2020-10-20	2021-04-15	2021-09-16	2022-04-05	2022-09-23	2023-04-14
Sample Type		N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Chemical Name	Unit														
CCR Appendix III															
Boron	mg/L	0.079 J		0.095 J	0.081 J	0.073 J	0.071 J	0.069 J	0.1 U	0.10 U	0.1 U	0.1 U	0.059 J	0.057 J	0.062 J
Calcium	mg/L	87		87	94	88	76	76	85.2	84.8	87	80.7	91.5	70.3	87.9
Chloride	mg/L	3.2		3.3	2.5	2.9	2.8	2.8	3.4	6.3	2.3	3.2	2.3	2.6	3.7
Fluoride	mg/L	0.21 J	0.19 J	0.24 J	0.19	0.21	0.23	0.24	0.17	0.23	0.16	0.19 J-	0.16	0.26	0.19
pH	SU	6.91	6.62	7.17	7.79	7.06		7.32	7.2	7.0	7.31	6.49	6.7 J	7.1 J	7.4 J
Sulfate	mg/L	11		11	12	22	14	16	11.3	49.7	9.2	24.2	12.6	7.3	15.6
Total Dissolved Solids	mg/L	390		350	360	390	360	330	349	313	336	325	330	290	345
CCR Appendix IV															
Antimony	mg/L		0.00086 J		0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	9.1E-05 J	0.001 U	0.0001 J
Arsenic	mg/L		0.011	0.0085	0.018	0.014	0.0077	0.008	0.012	0.020	0.012	0.043	0.017	0.048	0.01
Barium	mg/L		0.11	0.1	0.12	0.087	0.079	0.079	0.091	0.11	0.095	0.094	0.092	0.083	0.087
Beryllium	mg/L		0.00032 J		0.00044 J	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Cadmium	mg/L		0.001 U		0.00024 J	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Chromium	mg/L		0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.00058 J	0.00052 J	0.00043 J
Cobalt	mg/L		0.0023	0.0016	0.0018	0.0031	0.0027	0.0028	0.0029	0.0020	0.0025	0.0028	0.0021	0.0025	0.0022
Fluoride	mg/L	0.21 J	0.19 J	0.24 J	0.19	0.21	0.23	0.24	0.17	0.23	0.16	0.19 J-	0.16	0.26	0.19
Lead	mg/L		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L		0.0023 J		0.0032 J	0.0027 J	0.0028 J	0.003 J	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U
Mercury	mg/L		0.0002 U		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L		0.0035 J		0.0033 J	0.0034 J	0.0032 J	0.0036 J	0.0031	0.0030	0.0028	0.0041	0.0022	0.0039	0.0046
Radium, Total	pci/l		0.962 J+	0.67	1.3 J+	0.474 U			1.01 U		1.1 U		1.37	2.16	2 U
Selenium	mg/L		0.00091 J		0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00036 J	0.001 U	0.00038 J
Thallium	mg/L		0.001 U		0.001 U	0.001 U	0.001 U	0.00039 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters															
DO	mg/L	0.46	0.33	0.25	0.93	1.07		2.61	0.15	0.54	0.2	0.28	0.23	0.05	0.07
ORP	millivolts	-101.1	-87.5	-239.8	-377.3	-12.7		-4.1	-98.5	-4.4	-90.7	-191.9	-179.5	-102.1	-78.2
pH	SU	6.91	6.62	7.17	7.79	7.06		7.32	7.2	6.69	7.31	6.49	6.67	7.13	7.36
SC	uS/cm	665	393	558	628	381		421	625	586	583	625	414	443	321
TEMP	deg c	17.5	8.2	8.7	16.99	0.8		12.97	9.5	16.2	9.04	19.11	8.6	17.2	9
TURB	ntu	3.41	3.55	4.12	2.91	12.6		3.1	7.99	3.89	4.78	4.53	11.83	4.68	6.96

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW12B														GAMW13				
Sample Date		2018-09-07	2018-10-23	2019-04-25		2019-11-07		2020-05-07	2020-10-20	2021-04-15		2021-09-16	2022-04-01	2022-09-23	2023-04-14	2016-07-12	2016-09-07	2016-11-08	2017-01-09	2017-02-28
Sample Type		N	N	FD	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	0.28	0.26	0.31	0.3		0.33	0.38	0.36	0.29	0.31	0.32	0.4	0.43	0.46	0.2	0.27	0.4	0.2 U	0.2 U
Calcium	mg/L	100	110	100	100		88	96.6	108	103	104	107	96.9	98.1	95.4	85	86	86	80	94
Chloride	mg/L	22	19	23	23		24	23.4	23.1	20.5	20.8	20.6	25.1	22.2	23.9	13	15	18	4.6	7.4
Fluoride	mg/L	0.12 J	0.096	0.11	0.11		0.11	0.1	0.098	0.079	0.082	0.079 J-	0.05 U	0.11	0.094 J	0.32 J+	0.35 J	5 UO	0.19 J	0.19 J
pH	SU	7.15	8.83		7		7.63	7.55	7.3		7.55	6.99	7.4 J	7.5 J	7.6 J	6.71	6.76	6.78	6.72	6.76
Sulfate	mg/L	63	49	120	120		130	134	79.9	63.8	66.5	57.5	116	107	113	14 J-	47	62	40	43
Total Dissolved Solids	mg/L	870 J+	450	480	500		470	461	432	435	430	451	459	451	448	340	400	430	320	360
CCR Appendix IV																				
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00016 J	0.00028 J	0.002 U	0.002 U	0.002 U
Arsenic	mg/L	0.0013 J	0.00079 J	0.005 U	0.005 U		0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00042 J	0.00044 J	0.00041 J	0.01	0.014	0.013	0.0076	0.0052
Barium	mg/L	0.11	0.12	0.12	0.11		0.1	0.11	0.13	0.13	0.13	0.14	0.13	0.13	0.14	0.13	0.14	0.14	0.092	0.11
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00018 J	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.002 U	0.00099 J	0.002 U	0.002 U		0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.00038 J	0.00034 J	0.0003 J	0.00097 J	0.002 U	0.002 U	0.002 U	0.00068 J
Cobalt	mg/L	0.00039 J	0.00038 J	0.001 U	0.001 U		0.00044 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00016 J	0.00034 J	0.00019 J	0.001 U	0.0016	0.0014	0.0015	0.00077 J
Fluoride	mg/L	0.12 J	0.096	0.11	0.11		0.11	0.1	0.098	0.079	0.082	0.079 J-	0.05 U	0.11	0.094 J	0.32 J+	0.35 J	5 UO	0.19 J	0.19 J
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.001 U		0.00048 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.0042 J	0.0042 J	0.0043 J	0.0043 J		0.004 J	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.0087	0.008 U	0.01 U	0.0012 J	0.008 U	0.008 U	0.00047 J	0.008 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.01 U	0.01 U	0.0014 J	0.0013 J		0.0015 J	0.0019	0.0017	0.0012	0.0012	0.0013	0.002	0.0024	0.0027	0.0021 J	0.0074 J	0.013	0.01 U	0.01 U
Radium, Total	pci/l	1.66 J+	1.61 J+	1.03 J	0.544 J			1.76		1.65	2.42		1.39 U	2.42	1.59 U	1.45	1.02	1.54 J+	0.382 U	0.644
Selenium	mg/L	0.0024 J	0.005 U	0.005 U	0.005 U		0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00022 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	0.6	0.52		0.76		4.86	0.1	0.36		0.13	0.46	0.12	0.06	0.04	0.23	0.95	6.77	0.43	0.6
ORP	millivolts	-98.9	-378.3		-10.2		-34.9	-117.6	1		-107.1	-265.3	-241.9	-96.9	-76.9	-92.2	-70.8	-95.5	-66.2	-84.8
pH	SU	7.15	8.83		7		7.63	7.55	7.11		7.55	6.99	7.17	7.48	7.32	6.71	6.76	6.78	6.72	6.76
SC	uS/cm	712	760		560		482	734	734		709	704	580	539	407	6.14	717	694	538	593
TEMP	deg c	14	14.11		11.5		1.39	12.2	14		11.67	14.81	11.75	14.1	12	16.3	20.5	16.6	10.4	9.14
TURB	ntu	3.33	1.39		3.56		4.02	4.86	2.35		3.58	3.64	6.39	2.36	4.49	4.75	2.41	3.92	1.59	1.51

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter
"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW13															
	Sample Date	2017-04-25	2017-07-12	2017-08-23	2017-10-03	2018-03-13	2018-04-20	2018-10-24	2019-04-24	2019-11-06	2020-05-07	2020-10-20	2021-04-19	2021-09-17	2022-04-01	2022-09-23	2023-04-14
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Chemical Name	Unit																
CCR Appendix III																	
Boron	mg/L	0.18 J	0.21	0.24	0.18 J		0.21	0.38	0.18	0.13	0.21	0.16	0.16	0.19	0.092 J	0.15	0.054 J
Calcium	mg/L	100	87	88	86		110	74	75	71 J-	69.1	77.9	95.6	71.2	72.2	68.4	61.4
Chloride	mg/L	8.2	10	10	11		9.7	14	7.9	3.9	9	9.3	4.3	10.5	4.2	8.7	2.4
Fluoride	mg/L	0.22 J	0.27 J	0.31 J	0.28 J	5 U	0.27 J	0.28	0.24	0.31	0.25	0.31	0.27	0.31	0.18	0.35	0.23
pH	SU	6.74	6.81	6.46	6.8	6.4	6.94	6.88	6.79	7.15	7.02	6.9	6.95	6.67	7 J	7 J	7.7 J
Sulfate	mg/L	52	25	15	25		52	59	52	40	42.3	22.0	48.6	49.3	32.8	24	18
Total Dissolved Solids	mg/L	380	340	370	360		400 J	350	360	330	323	291	355	317	304	298	217
CCR Appendix IV																	
Antimony	mg/L	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00069 J	0.001 U	0.00075 J
Arsenic	mg/L	0.006	0.0082	0.0087		0.0039 J		0.01	0.005	0.006	0.0037	0.010	0.027	0.0076	0.003	0.024	0.003
Barium	mg/L	0.13	0.16	0.14		0.11	0.12	0.14	0.081	0.063	0.078	0.10	0.11	0.08	0.067	0.066	0.066
Beryllium	mg/L	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.00089 J	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	4.3E-05 J	0.0002 U	6.9E-05 J
Chromium	mg/L	0.002 U	0.002 U	0.002 U		0.0012 J		0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.00064 J	0.001 J	0.00044 J
Cobalt	mg/L	0.00074 J	0.0005 J	0.00042 J		0.0029	0.00096 J	0.00032 J	0.0012	0.00057 J	0.0011	0.0010 U	0.0012	0.001 U	0.00044 J	0.021	0.00024 J
Fluoride	mg/L	0.22 J	0.27 J	0.31 J	0.28 J	5 U	0.27 J	0.28	0.24	0.31	0.25	0.31	0.27	0.31	0.18	0.35	0.23
Lead	mg/L	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.008 U	0.0019 J	0.008 U		0.008 U		0.008 U	0.008 U	0.008 U	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 UJ		0.0002 U		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.004 J	0.0033 J	0.0022 J		0.0053 J		0.0054 J	0.012	0.0068 J	0.0065	0.0039	0.0096	0.004	0.0047	0.0055	0.0041
Radium, Total	pci/l	0.807	0.502	0.713		0.667 J+	0.401	1.84 J+	0.473 U		1.09 U		1.06 U		1.75 U	2.08 U	1.69 U
Selenium	mg/L	0.005 U	0.005 U	0.005 U		0.0011 J		0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00037 J	0.001 U	0.00039 J
Thallium	mg/L	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																	
DO	mg/L	0.28	0.91	0.28	0.41	0.81	0.32	1.12	1.35	2.26	1.21	0.69	0.46	0.29	1.35	0.29	0.37
ORP	millivolts	-96	-4.1	16.8	-34.8	-101.1	-112.4	-268.7	94.8	42	-17.9	-18.5	-16.8	-155.2	-126.1	-252.1	185.6
pH	SU	6.74	6.81	6.46	6.8	6.4	6.94	6.88	6.79	7.15	7.02	6.57	6.95	6.67	6.64	6.72	6.64
SC	uS/cm	664	630	661	655	446	723	614	304	433	680	582	461	580	413	460	279
TEMP	deg c	11.2	16	17.6	17.8	8.2	8.7	17.02	1.7	9.2	10.1	16.6	9.5	18.84	8.01	17.8	9.94
TURB	ntu	2.11	3.16	1.28	2.05	4.77	2.88	1.12	4.63	1.38	3.82	3.73	3.79	2.17	1.93	1.85	2.61

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW13B																	
Sample Date		2016-07-12	2016-09-07	2016-11-08	2017-01-09	2017-02-28		2017-04-25		2017-07-12	2017-08-23	2017-10-03	2018-03-13	2018-04-20		2018-09-06	2018-10-24	2019-04-24	2019-11-06
Sample Type		N	N	N	N	FD	N	FD	N	N	N	N	N	FD	N	N	N	N	N
Chemical Name	Unit																		
CCR Appendix III																			
Boron	mg/L	0.71	0.76	0.73	0.78	0.74	0.78	0.74	0.76	0.73	0.73	0.79			0.76	0.72	0.71	0.71	0.7
Calcium	mg/L	80	70	78	76	76	79	78	77	75	72	78			76	72	71	72	66 J-
Chloride	mg/L	24	25	25	25	25	25	25	26	26	27	28			27	27	24	27	27
Fluoride	mg/L	0.28 J+	0.29 J	5 UO	0.3 J	0.29 J	0.29 J	0.32 J	0.28 J	0.23 J	0.27 J	0.26 J	0.27 J		0.31 J	0.28 J	0.25	0.35	0.34
pH	SU	7.31	7.48	7.17	7.45		7.47		7.42	7.31	7.06	7.5	7.27		7.64	7.37	7.45	7.3	7.81
Sulfate	mg/L	150 J-	150	150	150	150	150	150	150	150	160	170			150	150	150	150	150
Total Dissolved Solids	mg/L	440	410	410	390	420	420	400	390	390	430	440			370 J	410	420	430	400
CCR Appendix IV																			
Antimony	mg/L	0.00033 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U			0.002 U	0.002 U	0.002 U	0.002 U
Arsenic	mg/L	0.0021 J	0.0011 J	0.0011 J	0.0015 J	0.0013 J	0.0013 J	0.0016 J	0.0014 J	0.0013 J	0.00092 J		0.0012 J	0.00098 J		0.005 U	0.005 U	0.0014 J	0.00091 J
Barium	mg/L	0.093	0.08	0.084	0.084	0.093	0.097	0.091	0.093	0.089	0.086		0.1	0.091	0.094	0.087	0.082	0.093	0.078
Beryllium	mg/L	0.00063 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U			0.001 U	0.001 U	0.0013	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U			0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00036 J	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U			0.002 U	0.002 U	0.002 U	0.002 U
Cobalt	mg/L	0.001 U	0.001 U	0.001 U	0.00018 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U	0.001 U		0.00019 J	0.001 U	0.001 U	0.001 U
Fluoride	mg/L	0.28 J+	0.29 J	5 UO	0.3 J	0.29 J	0.29 J	0.32 J	0.28 J	0.23 J	0.27 J	0.26 J	0.27 J		0.31 J	0.28 J	0.25	0.35	0.34
Lead	mg/L	0.001 U	0.001 U	0.00042 J	0.001 U	0.00034 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U			0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.0023 J	0.008 U	0.008 U	0.0019 J	0.0013 J	0.0016 J	0.0018 J	0.0017 J	0.0034 J	0.0021 J		0.008 U	0.008 U		0.008 U	0.0018 J	0.0019 J	0.0017 J
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ		0.0002 U			0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.023	0.021	0.022	0.019 J+	0.02	0.02	0.021	0.021	0.022	0.021		0.021	0.022	0.021	0.018	0.018	0.021	0.017
Radium, Total	pci/l	5 U	0.66 U	1.16 J+	0.946	0.571 U	0.902	0.911 J	0.515 J	0.595	1.06		0.783 J+	0.571	0.863	0.885	1.76 J+	0.529	
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U	0.005 U		0.001 J	0.005 U	0.005 U	0.005 U
Thallium	mg/L	0.00015 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U			0.001 U	0.001 U	0.00021 J	0.001 U
Sample Parameters																			
DO	mg/L	0.65	1.05	0.44	0.226		0.69		0.22	0.56	0.63	0.34	0.53		0.14	0.38	1.24	1.16	2.1
ORP	millivolts	-86.5	-92.3	-110.1	-111.5		-114.4		-125.7	-72.6	1.1	-72.1	-98.1		-230.2	-118.7	-235.5	17.8	-45.2
pH	SU	7.31	7.48	7.17	7.45		7.47		7.42	7.31	7.06	7.5	7.27		7.64	7.37	7.45	7.3	7.81
SC	uS/cm	634	634	624	575		611		604	613	652	681	464		607	631	639	394	440
TEMP	deg c	14.7	16.8	14.5	12.7		12.6		13.2	13.9	14.4	14.4	12		12.3	14.14	14.1	3.39	11.67
TURB	ntu	4.94	1.94	1.57	2.86		4.56		4.5	3.86	1.8	0.42	4.22		4.19	2.25	1.08	4.07	2.03

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW13B								GAMW14										
Sample Date		2020-05-07		2020-10-20	2021-04-19	2021-09-17	2022-04-01	2022-09-23	2023-04-14	2016-07-12	2016-09-07	2016-11-08	2017-01-09	2017-02-28	2017-04-25	2017-06-28		2017-08-22	2017-10-03	2018-03-12
Sample Type		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	0.63	0.64	0.67	0.71	0.6	0.67	0.61	0.62	0.27	0.36	0.25	0.3	0.26	0.28	0.26	0.24	0.24	0.23	
Calcium	mg/L	71.8	72.1	78.6	82.7	77.8	80.4	75.4	77	69	69	72	55	65	57	58	58	68	73	
Chloride	mg/L	29.9	30.1	28.8	28.3	26	27.7	26	27.4	15	11	8.7	7.6	8.4	5.1	2	2.1	1.7 J	1.8	
Fluoride	mg/L	0.24	0.24	0.26	0.31	0.25	0.25	0.22	0.27	0.27 J+	0.24 J	2 UO	0.23 J	0.19 J	0.2 J	0.2 J	0.22 J	0.21 J	0.21 J	0.25 J
pH	SU		7.81	7.4	7.73	7.32	7.5 J	7.6 J	7.8 J	6.32	6.88	6.59	5.99	6.77	6.85		6.93	6.77	6.77	6.75
Sulfate	mg/L	141	142	143	146	137	116	137	116	100 J-	88	52	74	79	77	52	48	54	54	
Total Dissolved Solids	mg/L	355	380	383	376	395	409	399	368	360	310	310	250 J+	310	260	270	260	300	340	
CCR Appendix IV																				
Antimony	mg/L	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00036 J	0.00032 J	0.002 U	0.00039 J	0.002 U	0.00091 J	0.002 U	0.002 U	0.002 U		0.0016 J
Arsenic	mg/L	0.0012	0.0013	0.0011	0.0012	0.001	0.0018	0.001	0.0016	0.0033 J	0.0029 J	0.0055	0.0023 J	0.0024 J	0.0018 J	0.0017 J	0.0018 J	0.003 J		0.0021 J
Barium	mg/L	0.08	0.079	0.083	0.081	0.077	0.083	0.073	0.087	0.065	0.068	0.065	0.059	0.07	0.071	0.065	0.066	0.069		0.061
Beryllium	mg/L	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00013 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U
Cadmium	mg/L	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U
Chromium	mg/L	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.00055 J	0.00035 J	0.00047 J	0.002 U	0.002 U	0.002 U	0.002 U	0.00046 J	0.002 U	0.002 U	0.002 U	0.002 U		0.0011 J
Cobalt	mg/L	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00015 J	0.00022 J	0.00015 J	0.012	0.01	0.015	0.0052	0.015	0.023	0.022	0.023	0.026		0.035
Fluoride	mg/L	0.24	0.24	0.26	0.31	0.25	0.25	0.22	0.27	0.27 J+	0.24 J	2 UO	0.23 J	0.19 J	0.2 J	0.2 J	0.22 J	0.21 J	0.21 J	0.25 J
Lead	mg/L	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U
Lithium	mg/L	0.008 U	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.00046 J	0.008 U	0.008 U	0.00038 J	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U		0.008 U
Mercury	mg/L	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ		0.0002 U
Molybdenum	mg/L	0.019	0.019	0.017	0.016	0.016	0.014	0.015	0.014	0.0088 J	0.011	0.01 U	0.013 J+	0.011	0.0098 J	0.008 J	0.0082 J	0.0078 J		0.011
Radium, Total	pci/l	1.01 U	1.31		0.82 U		1.41 U	1.99 U	1.66 U	5 U	0.553	1.03 J+	0.375 U	0.413 U	0.447 U	0.72	0.287 U	0.4 U		0.366 U
Selenium	mg/L	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00021 J	0.005 U	0.005 U	0.005 U	0.00058 J	0.0011 J	0.00095 J	0.005 U	0.005 U	0.005 U		0.005 U
Thallium	mg/L	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U
Sample Parameters																				
DO	mg/L		0.22	0.37	0.23	0.32	0.2	0.21	0.23	0.39	1.24	0.78	1.68	3.38	0.6		3.1	1.19	0.46	1.33
ORP	millivolts		-138.4	-31.1	-120.6	-259.6	-241.2	-256.8	-126	179.6	163.9	75.6	230.3	225.8	82.1		268.3	110.1	89.5	-117
pH	SU		7.81	7.47	7.73	7.32	7.39	7.44	7.35	6.32	6.88	6.59	5.99	6.77	6.85		6.93	6.77	6.77	6.75
SC	uS/cm		646	636	527	568	544	470	486	501	512	505	360	430	400		404	466	578	241
TEMP	deg c		12.4	14.1	11.97	14.15	11.58	14.3	13.4	14.7	18.6	15.5	11.2	9.85	10.9		13.5	16.2	16.7	8.99
TURB	ntu		4.98	4.1	3.92	0.5	4.75	1.47	3.3	2.33	1.33	0.57	0.91	4.14	2.71		3.23	3.71	2.61	4.41

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW14													GAMW14B					
Sample Date		2018-04-19	2018-10-25	2019-03-01	2019-04-22	2019-11-06	2020-05-06	2020-10-20		2021-04-19	2021-09-17	2022-04-05	2022-09-23	2023-04-12	2016-07-12	2016-09-07	2016-11-08	2017-01-09	2017-02-28	2017-04-25
Sample Type		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	0.25	0.3	0.2	0.22	0.16	0.16	0.14	0.14	0.29	0.2	0.13	0.33	0.12	2.8	2.4	3.4	2.9	2.9	2.9
Calcium	mg/L	37	58	38	38	59 J-	41.5	71.7	73.8	67.7	82.6	55.5	80.7	57.3	150	130	140	84	95	110
Chloride	mg/L	1.4	13	2.8	2.7	2.1	0.85	3.6	3.6	11.3	10.6	2.4	12.6	3	100	100	120	94	100	100
Fluoride	mg/L	0.29 J	0.2	0.21	0.18	0.23	0.18	0.21	0.21	0.26	0.26	0.16	0.22	0.16	0.29 J+	0.27 J	20 U	0.39 J	10 U	0.3 J
pH	SU	6.99	7.26	7.01	7.27	7.14	6.95	6.8	6.8	7.03	6.61	6.6 J	7 J	8.8 J	7.26	7.38	7.11	7.48	7.41	7.39
Sulfate	mg/L	35	51	35	37	27	22.7	8.5	8.4	40.6	31.8	39.9	60.2	41.7	1200 J-	950	1100	790	860	900
Total Dissolved Solids	mg/L	220	290	210	360	260	163	240	259	270	330	223	343	201	1900	2000	2000	1700	1700	1700
CCR Appendix IV																				
Antimony	mg/L		0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U	0.00022 J	0.001 U	0.00022 J	0.00016 J	0.002 U	0.00071 J	0.0013 J	0.002 U	0.002 U
Arsenic	mg/L		0.014	0.012	0.0028 J	0.026	0.0057	0.029	0.029	0.018	0.039	0.015	0.0066	0.0093	0.0029 J	0.00095 J	0.001 J	0.0015 J	0.00092 J	0.0015 J
Barium	mg/L	0.049	0.058	0.041	0.049	0.055	0.042	0.053	0.053	0.061	0.081	0.052	0.11	0.045	0.13	0.12	0.12	0.081	0.089	0.096
Beryllium	mg/L		0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	2.1E-05 J	0.0002 U	3.3E-05 J	0.00015 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L		0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	7E-05 J	3.1E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.0020 U	0.002 U	0.002 U	0.00076 J	0.0009 J	0.00096 J	0.00094 J	0.002 U	0.002 U	0.002 U	0.0007 J	0.002 U
Cobalt	mg/L	0.052	0.031	0.0083	0.0026	0.014	0.0072	0.023	0.023	0.017	0.024	0.012	0.00087 J	0.012	0.001 U	0.00023 J	0.001 U	0.00045 J	0.0002 J	0.001 U
Fluoride	mg/L	0.29 J	0.2	0.21	0.18	0.23	0.18	0.21	0.21	0.26	0.26	0.16	0.22	0.16	0.29 J+	0.27 J	20 U	0.39 J	10 U	0.3 J
Lead	mg/L		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00025 J	0.0012	0.001 U	0.0004 J	0.001 U	0.001 U	0.001 U
Lithium	mg/L		0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.0080 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.005 J	0.008 U	0.008 U	0.0053 J	0.0046 J	0.0054 J
Mercury	mg/L		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.0096 J	0.011	0.0074 J	0.011	0.0084 J	0.0066	0.0088	0.0087	0.0073	0.0077	0.0052	0.004	0.0056	0.035	0.035	0.023	0.031 J+	0.03	0.028
Radium, Total	pci/l	0.399	0.671		0.345		0.624 U			0.883 U		1.39 U	1.96 U	1.87 U	3.26	2.47	3.11 J+	1.45	2.17	1.65
Selenium	mg/L		0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00055 J	0.005 U	0.005 U	0.00087 J	0.00083 J	0.00061 J	0.005 U
Thallium	mg/L		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	5.7E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	1.02	1.8	0.32	3.21	1.49	1.39		0.49	0.2	0.29	0.82	0.21	0.98	0.3	1.28	0.44	0.35	0.27	0.11
ORP	millivolts	-243.1	-240.9	-11.5	61.3	38.2	45.4		61.1	-31.7	-234.5	-32.2	-274.8	-56.5	-60.6	29.7	-76.7	-79.8	-81.4	-112.8
pH	SU	6.99	7.26	7.01	7.27	7.14	6.95		6.36	7.03	6.61	6.65	6.48	6.56	7.26	7.38	7.11	7.48	7.41	7.39
SC	uS/cm	283	464	226	223	325	330		478.2	377	568	400	490	281	2425	2515	2557	2019	1990	2211
TEMP	deg c	9.4	16.3	8.79	10.3	14.71	10.2		15.5	10.2	16.83	9.2	16.11	10.85	14.6	16.3	14	12.4	12.5	13.3
TURB	ntu	4.89	1.81	4.43	4.68	2.51	4.93		3.3	4.19	0.85	1.19	1.74	4.73	4.7	1.94	0.97	1.48	4.05	4.13

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
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"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW14B																	
Sample Date		2017-07-12	2017-08-22	2017-10-03	2018-03-12	2018-04-19	2018-09-06	2018-10-25	2019-04-22	2019-11-06		2020-05-06	2020-10-20	2021-04-19		2021-09-17	2022-04-05	2022-09-23	2023-04-12
Sample Type		N	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N
Chemical Name	Unit																		
CCR Appendix III																			
Boron	mg/L	2.8	3	2.9		3	2.9	2.8	2.9	3.4	3.3	4.8	4.6	2.8	2.8	2.7	2.4	1.4	2.4
Calcium	mg/L	120	120	120		150	150	150	140	130 J-	130 J-	148	171	146	143	112	99.1	198	175
Chloride	mg/L	83	100	110		110	110	97	99	120	120	130	138	112	108	85.2	86.6	87.1	108
Fluoride	mg/L	10 U	0.35 J	0.25 J	10 U	0.43 J-	0.33 J	0.31	0.31	0.4	0.39	0.38	0.30	0.29	0.29	0.28	0.36	0.11	0.05 U
pH	SU	6.96	7.44	7.47	7.59	7.55	7.29	7.67	7.75		7.93	7.7	7.4		7.71	7.39	7.1 J	7.3 J	7.5 J
Sulfate	mg/L	780	960	880		990	1100	1100	1200	1300	1300	1540	1570	1330	1350	841	798	836	922
Total Dissolved Solids	mg/L	1500	1800	1800		2000	2000	1900	1900	1800	2200	2650	2630	1730	1740	1660	1510	1590	3420
CCR Appendix IV																			
Antimony	mg/L	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	7.2E-05 J
Arsenic	mg/L	0.0011 J	0.0009 J		0.0012 J		0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001	0.0010 U	0.001 U	0.001 U	0.001 U	0.00055 J	0.00028 J	0.0004 J
Barium	mg/L	0.11	0.1		0.11	0.11	0.12	0.12	0.11	0.11	0.11	0.1	0.11	0.08	0.08	0.059	0.05	0.07	0.064
Beryllium	mg/L	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.00083 J	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	2.6E-05 J	0.0002 U	3.8E-05 J
Cadmium	mg/L	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Chromium	mg/L	0.002 U	0.002 U		0.002 U		0.002 U	0.002 U	0.0044	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.00096 J	0.00048 J	0.0009 J
Cobalt	mg/L	0.00019 J	0.00028 J		0.00019 J		0.00039 J	0.00022 J	0.00058 J	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00019 J	0.0006 J	0.00026 J
Fluoride	mg/L	10 U	0.35 J	0.25 J	10 U	0.43 J-	0.33 J	0.31	0.31	0.4	0.39	0.38	0.30	0.29	0.29	0.28	0.36	0.11	0.05 U
Lead	mg/L	0.001 U	0.001 U		0.001 U		0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	3.8E-05 J
Lithium	mg/L	0.0065 J	0.0051 J		0.0043 J		0.0056 J	0.0057 J	0.0058 J	0.0057 J	0.0059 J	0.011	0.0093	0.008 U	0.008 U	0.008 U	0.008 U	0.0082	0.01 U
Mercury	mg/L	0.0002 U	0.0002 UJ		0.0002 U		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.014	0.015		0.022	0.026	0.033	0.035	0.028	0.017	0.017	0.043	0.048	0.028	0.028	0.04	0.025	0.025	0.028
Radium, Total	pci/l	1.17	1.73		1.87 J+	1.68	2.55	2.73	2.05			2.22		1.92	1.85		1.98	2.05	2.77
Selenium	mg/L	0.005 U	0.00099 J		0.005 U		0.0021 J	0.001 J	0.00093 J	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00029 J
Thallium	mg/L	0.001 U	0.00025 J		0.001 U		0.001 U	0.001 U	0.00022 J	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																			
DO	mg/L	1.02	0.76	0.31	0.37	0.17	0.44	1.3	1.07		2.16	0.11	0.36		0.29	0.42	0.53	0.18	0.13
ORP	millivolts	31.4	58	-93.4	102.6	-286.8	-114.1	-211.9	28.8		-21.4	-110.4	-13.2		-103.5	-193.7	-132.5	-277.5	-83.5
pH	SU	6.96	7.44	7.47	7.59	7.55	7.29	7.67	7.75		7.93	7.7	7.53		7.71	7.39	7.67	7.22	7.58
SC	uS/cm	2156	2177	2295	1844	2171	2642	2542	1887		2124	3957	3573		2128	2053	2250	1520	1654
TEMP	deg c	13.5	14	14.1	12.4	12.5	13.91	13.4	12.8		13.37	12.7	13.7		12.37	13.98	12.7	13.85	12
TURB	ntu	1.26	0.63	0.48	3.79	2.59	1.42	1.41	2.79		0.71	4.78	3.56		1.86	1.1	1.46	1.09	1.69

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW42															
Sample Date		2018-09-13	2018-10-31	2019-03-04		2019-04-18	2019-06-05	2019-07-17	2019-08-26	2019-10-02	2019-11-05		2020-04-22		2020-10-14	2021-04-23
Sample Type		N	N	FD	N	N	N	N	N	N	FD	N	FD	N	N	N
Chemical Name	Unit															
CCR Appendix III																
Boron	mg/L	0.04 J	0.041 J	0.033 J	0.031 J	0.044 J	0.033 J	0.037 J	0.043 J	0.1 U	0.034 J	0.033 J	0.1 U	0.1 U	0.10 U	0.1 U
Calcium	mg/L	44	38	44	43	36	39	40	47	41	42	43	42.9	43.5	42.6	47.1
Chloride	mg/L	3.1	2.8	2.9	2.8	2.8		2.5	3.1	3.3	3.1	3.2	3.1	3.2	2.8	4.2
Fluoride	mg/L	0.25 J	0.2	0.2	0.2	0.19		0.22	0.2	0.22	0.23	0.21	0.21	0.2	0.21	0.17 J-
pH	SU	7.54	7.15		6.93	7.1	6.85	7.58	7.54	7.41		7.83		7.9	7.6	7.62
Sulfate	mg/L	21	23	25	25	30		23	27	26	25	25	24.5	24.3	23.6	29.9
Total Dissolved Solids	mg/L	190	170	180	200	640		180	210	190	190	190	173	171	178	148
CCR Appendix IV																
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.001 U	0.0010 U	0.001 U
Arsenic	mg/L	0.01	0.0037 J	0.0026 J	0.0025 J	0.0023 J	0.0019 J	0.0016 J	0.0018 J	0.0022 J	0.0019 J	0.0021 J	0.0012	0.0012	0.0015	0.0012
Barium	mg/L	0.034	0.046	0.023	0.022	0.024	0.018	0.019	0.021	0.02	0.021	0.022	0.018	0.019	0.019	0.018
Beryllium	mg/L	0.001 U	0.001 U	0.0004 J	0.001 U	0.001 U	0.00056 J	0.001 U	0.001 U	0.00057 J	0.001 U	0.00072 J	0.0002 U	0.0002 U	0.00020 U	0.0002 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U
Chromium	mg/L	0.002 U	0.0014 J	0.0012 J	0.0012 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0013 J	0.002 U	0.002 U	0.0020 U	0.002 U
Cobalt	mg/L	0.00027 J	0.00053 J	0.001 U	0.001 U	0.00044 J	0.0002 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00023 J	0.001 U	0.001 U	0.0010 U	0.001 U
Fluoride	mg/L	0.25 J	0.2	0.2	0.2	0.19		0.22	0.2	0.22	0.23	0.21	0.21	0.2	0.21	0.17 J-
Lead	mg/L	0.001 U	0.001 U	0.00045 J	0.001 U	0.00064 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U
Lithium	mg/L	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.0080 U	0.008 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U
Molybdenum	mg/L	0.0035 J	0.0022 J	0.0024 J	0.0022 J	0.003 J	0.0023 J	0.0019 J	0.002 J	0.0029 J	0.0023 J	0.003 J	0.002	0.002	0.0021	0.0022
Radium, Total	pci/l	0.476		0.536	0.437 U	0.346 U		0.393 U	0.48 U	0.539			0.173 U	0.769 U		0 U
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.001 U	0.0010 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00022 J	0.001 U	0.001 U	0.00062 J	0.001 U	0.0007 J	0.001 U	0.001 U	0.0010 U	0.001 U
Sample Parameters																
DO	mg/L	0.8	0.13		0.06	0.79	0.29	2.19	1.95	0.22		1.25		0.11	0.51	0.59
ORP	millivolts	-112.2	-147.1		113.7	-38.9	-82.3	13.9	-94.6	75.7		108		-90.7	-35	-80.9
pH	SU	7.54	7.15		6.93	7.1	6.85	7.58	7.54	7.41		7.83		7.9	7.55	7.62
SC	uS/cm	288	274		184	192	198	211	229	220		208		302	276.8	326.1
TEMP	deg c	14.8	13.9		8.2	8.8	11.5	13.7	14.8	14.9		13.06		8.9	13.8	9.9
TURB	ntu	3.92	4.11		3.16	8.18	2.47	2.4	1.4	1.6		2.81		4.2	2.6	2.56

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW42				GAMW42B														
	Sample Date	2021-09-14	2022-05-09	2022-10-06	2023-05-02	2018-09-13	2019-03-04	2019-04-18	2019-06-05	2019-07-17	2019-08-27	2019-10-02	2019-11-05	2020-04-22	2020-10-14	2021-04-23	2021-09-14	2022-05-09	2022-10-06	2023-05-02
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	0.1 U	0.031 J	0.1 U	0.1 U	0.061 J	0.039 J	0.033 J	0.035 J	0.038 J	0.026 J	0.22	0.031 J	0.1 U	0.10 U	0.1 U	0.1 U	0.037 J	0.1 U	0.1 U
Calcium	mg/L	59.9	62.5	60	64.7	46	52	47	50	48	52	52	53	47.4	53.2	57.9	62.6	60.6	63.8	67.6
Chloride	mg/L	11.4	10.6	10.6	11.1	4	5	4.3		4	4.3	5.6	6.4	4.2	5.6	8.6	10.3	9.1	11.2	11.1
Fluoride	mg/L	0.19	0.16	0.15	0.16	0.25 J	0.18	0.18		0.19	0.18	0.18	0.18	0.19	0.15	0.15 J-	0.12	0.17	0.13	0.16
pH	SU	7	7.3 J	7.8 J	7.9 J	8.08	7.23	7.7	7.12	8.25	7.57	7.67	8.25	8.08	7.7	7.72	8	7.6 J	7.8 J	7.8 J
Sulfate	mg/L	66.5	57.9	45.6	52.5	21	30	26		26	27	31	35	23.3	29.3	37.7	31.8	35.6	37.8	46.9
Total Dissolved Solids	mg/L	253	269	258	235	190	220	84		220	230	230	250	188	207	193	241	185	263	244
CCR Appendix IV																				
Antimony	mg/L	0.001 U	0.001 U	0.001 U	8.4E-05 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00059 J	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	7.6E-05 J
Arsenic	mg/L	0.0011	0.0012	0.0013	0.00092 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.0003 J	0.00028 J	0.0003 J
Barium	mg/L	0.023	0.0242	0.023	0.023	0.016	0.011	0.0093	0.012	0.012	0.014	0.013	0.013	0.012	0.016	0.016	0.021	0.0188	0.021	0.023
Beryllium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.0014	0.001 U	0.001 U	0.00074 J	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Cadmium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Chromium	mg/L	0.002 U	0.0011 J	0.002 U	0.00073 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0024	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00084 J
Cobalt	mg/L	0.001 U	0.00019 J	0.00014 J	8.3E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00012 J	0.00014 J	0.00014 J
Fluoride	mg/L	0.19	0.16	0.15	0.16	0.25 J	0.18	0.18		0.19	0.18	0.18	0.18	0.19	0.15	0.15 J-	0.12	0.17	0.13	0.16
Lead	mg/L	0.001 U	0.001 U	0.001 U	6E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00016 J
Lithium	mg/L	0.008 U	0.008 U	0.008 U	0.01 U	0.0018 J	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.0033	0.0034	0.0033	0.0036	0.0048 J	0.0031 J	0.0026 J	0.0031 J	0.0025 J	0.0035 J	0.0039 J	0.0033 J	0.0023	0.0026	0.0029	0.0027	0.0027	0.0028	0.003
Radium, Total	pci/l		1.62 R		1.52 U	0.661	0.396 U	0.384 U		0.46	0.73	0.972		0.768 U		0.853 U		1.6 U		1.31 U
Selenium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0011 J	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00062 J	0.001 U	0.0005 J	0.0008 J	0.00023 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	0.17	0.61	0.08	0.26	0.53	0.07	0.65	0.27	1.46	0.9	0.18	0.8	0.13	0.34	0.49	0.15	0.54	0.11	0.07
ORP	millivolts	-191	-57.7	-185.9	-116.8	-248.6	-157.6	-133.1	-139.2	-132	-137.7	44.8	-60.2	-119.8	-74	-125.5	-261	-133	-198	-99.5
pH	SU	7	6.94	7.2	8.51	8.08	7.23	7.7	7.12	8.25	7.57	7.67	8.25	8.08	7.84	7.72	8	7.58	7.27	7.81
SC	uS/cm	413	397	460	275	297	244	245	245	246	262	254	255	330	349.4	407	414	378	290	291
TEMP	deg c	14.9	10.9	14.9	8.7	12.8	10.9	10.8	12.2	12.7	12.8	13.4	11.81	10.8	12.6	11.8	13.1	11.9	13.36	10.7
TURB	ntu	1.76	3.11	2.38	4.32	4.9	3.15	4.05	0.6	1.09	0.58	0.96	0.36	4.88	2.3	4.87	3.98	3.78	3.89	4.46

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
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"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW42C												GAMW43						
	Sample Date	2019-07-18	2019-08-28	2019-10-03	2019-11-05	2020-04-21	2020-10-15	2021-04-23	2021-09-15	2022-05-09	2022-10-06	2022-10-06	2023-05-03	2018-06-13	2019-03-05	2019-04-19		2019-06-05	2019-07-17	2019-08-27
	Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	1	1	0.79	0.75	0.8	0.74	0.69	0.62	0.7	0.66	0.73	0.74	0.025 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Calcium	mg/L	45	50	45	45	45.6	48.0	48.6	53.9	55.5	57.1	58.3	57.4	26	24	21	22	22	25	28
Chloride	mg/L	6.4	6.5	5.8	5.8	6.3	5.5	6.3	8.3	9	11.5	11.5	11.4	6	1.4	1.1	0.92 J		0.78 J	0.89 J
Fluoride	mg/L	0.3	0.25	0.25	0.26	0.2	0.20	0.2 J-	0.22	0.24	0.21	0.2	0.22	0.15 J	0.11	0.11	0.1		0.14	0.13
pH	SU	7.81	7.28	7.48	7.64	7.65	7.4	7.59	7.36	7.5 J	7.7 J	7.7 J	7.4 J	6.63	6.8		7.07	6.62	7.35	7.1
Sulfate	mg/L	13	4.3	5.6	4.5	4.5	3.9	4.4	4.3	4.4	2.5	2.8	11.9	25	29	31	31		22	22
Total Dissolved Solids	mg/L	220	290	270	280	239	223	203	254	277	263	272	277	160	150	130	140		140	140
CCR Appendix IV																				
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	9.1E-05 J	0.002 U	0.002 U	0.00061 J	0.00077 J	0.00063 J	0.002 U	0.002 U
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00018 J	0.00021 J	0.00022 J	0.00055 J	0.0073	0.0036 J	0.0024 J	0.0024 J	0.0027 J	0.0025 J	0.0037 J
Barium	mg/L	0.015	0.015	0.01	0.01	0.013	0.010	0.0092	0.0089	0.009	0.0088 J+	0.0088 J+	0.01	0.028	0.021	0.016	0.016	0.015	0.019	0.018
Beryllium	mg/L	0.001 U	0.00048 J	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.00097 J	0.001 U	0.00075 J	0.0019	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.001 J	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0015 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cobalt	mg/L	0.001 U	0.0004 J	0.001 U	0.0003 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.00014 J	0.0002 J	0.00021 J	0.00048 J	0.0023	0.02	0.013	0.014	0.0067	0.0034	0.0036
Fluoride	mg/L	0.3	0.25	0.25	0.26	0.2	0.20	0.2 J-	0.22	0.24	0.21	0.2	0.22	0.15 J	0.11	0.11	0.1		0.14	0.13
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	9.9E-05 J	0.00012 J	0.00013 J	0.00074 J	0.001 U	0.00048 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.037	0.038	0.025	0.023	0.032	0.028	0.032	0.024	0.03	0.027	0.035	0.033	0.008 U	0.008 U	0.008 U	0.008 U	0.0023 J	0.008 U	0.008 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.0053 J	0.0049 J	0.0027 J	0.0031 J	0.0038	0.0031	0.0026	0.0021	0.0021	0.0019	0.0019	0.0037	0.004 J	0.0016 J	0.0015 J	0.0017 J	0.0017 J	0.01 U	0.0015 J
Radium, Total	pci/l	0.723	1.14	0.972		1.73 U		0.802 U		1.26 U			1.7	0.323 U	0.371 U	0.405 U	0.369 U		0.362 U	
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 J	0.005 U	0.005 U	0.005 U	0.001 J	0.005 U	0.005 U
Thallium	mg/L	0.00039 J	0.00061 J	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	4E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00073 J	0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	0.83	0.29	0.04	0.22	0.09	0.29	0.43	0.12	0.54		0.07	0.19	0.19	0.1		0.99	0.17	0.88	0.63
ORP	millivolts	-127.9	-205.2	-64.7	293.9	-119	-25.6	-123.3	-231	-123.8		-250.7	-88.6	-12	42.7		119.6	47.7	18.7	-18.6
pH	SU	7.81	7.28	7.48	7.64	7.65	7.29	7.59	7.36	7.38		6.92	7.59	6.63	6.8		7.07	6.62	7.35	7.1
SC	uS/cm	360	350	292	259	451	409	455.1	475	470		410	338	269	148		141	150	171	203
TEMP	deg c	13.3	12.3	11.9	11.5	11.2	11.9	11.8	12.7	12.5		12.88	10.1	13.1	7.48		8.2	12	15.7	16.3
TURB	ntu	4.43	4.5	4.69	9.33	14.92	8.56	7.69	5.86	4.89		4.84	168.66	4.35	3.99		4.6	4.2	2.98	1.95

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

		Location	GAMW43										GAMW43B								
		Sample Date	2019-10-02	2019-11-19	2020-04-22	2020-10-15	2021-04-23	2021-09-14	2022-05-10	2022-10-06	2023-05-03	2023-05-03	2018-06-13	2019-03-05	2019-04-19	2019-06-06		2019-07-17	2019-08-27	2019-10-02	2019-11-19
		Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Chemical Name		Unit																			
CCR Appendix III																					
Boron		mg/L	0.19	0.024 J	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.037 J	0.029 J	0.036 J	0.1 U	0.1 U	0.035 J	0.024 J	0.16	0.035 J
Calcium		mg/L	28	34	24.2	29.5	28	32.6	23.3	30.3	25.8	25.2	38	42	43	38 J-	39 J-	37	38	36	38
Chloride		mg/L	1.2	1.1	0.82	0.90	0.53	0.85	0.69	0.81	0.39	0.39	1.5	1.5	1.6			1.5	1.5	1.6	1.5
Fluoride		mg/L	0.14	0.14	0.15	0.12	0.13 J-	0.11	0.11	0.11	0.14	0.14	0.16 J	0.17	0.17			0.18	0.18	0.19	0.18
pH		SU	6.98	6.94	7.5	7.3	7.22	7.22	7 J	7.8 J	7.4 J	7.3 J	7.11	7.62	7.76		7.47	8.09	7.49	7.41	7.5
Sulfate		mg/L	30	30	25.6	24.8	30	28.4	26.8	23.3	24.6	24.6	26	31	35			28	24	22	29
Total Dissolved Solids		mg/L	180	180	113	126	86	137	102	148	102	111	180	140	170			160	160	160	170
CCR Appendix IV																					
Antimony		mg/L	0.002 U	0.00077 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.00019 J	0.001 U	0.00026 J	0.00027 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic		mg/L	0.0033 J	0.0035 J	0.0021	0.0030	0.0016	0.0028	0.0017	0.0025	0.0023	0.0023	0.0018 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Barium		mg/L	0.026	0.06	0.015	0.019	0.019	0.026	0.0131	0.019	0.015	0.015	0.015	0.012	0.014	0.012	0.012	0.011	0.011	0.011	0.011
Beryllium		mg/L	0.001 U	0.0014	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.00075 J	0.0011	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium		mg/L	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	1.5E-05 J	1.3E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium		mg/L	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.00082 J	0.002 U	0.00077 J	0.00074 J	0.0011 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cobalt		mg/L	0.0045	0.0037	0.0068	0.0043	0.0024	0.0022	0.0017	0.0017	0.00068 J	0.00068 J	0.00033 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Fluoride		mg/L	0.14	0.14	0.15	0.12	0.13 J-	0.11	0.11	0.11	0.14	0.14	0.16 J	0.17	0.17			0.18	0.18	0.19	0.18
Lead		mg/L	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00027 J	0.001 U	0.00029 J	0.00025 J	0.00092 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium		mg/L	0.0022 J	0.0026 J	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.01 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U
Mercury		mg/L	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum		mg/L	0.0035 J	0.0048 J	0.001 U	0.0019	0.0018	0.002	0.0012	0.0034	0.0031	0.0031	0.0022 J	0.0018 J	0.0018 J	0.0022 J	0.0025 J	0.0019 J	0.002 J	0.0022 J	0.0021 J
Radium, Total		pci/l	0.411 U		1.11 U		0.568 U		1.15 R		1.49 U	1.38 U	0.408	0.373 U	0.375 U			0.393 U	0.442 U	0.479 U	
Selenium		mg/L	0.005 U	0.0012 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.00037 J	0.001 U	0.0003 J	0.00028 J	0.00089 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Thallium		mg/L	0.00024 J	0.00091 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00042 J	0.00058 J	0.001 U	0.001 U	0.001 U	0.00028 J
Sample Parameters																					
DO		mg/L	0.31	0.32	0.12	0.33	0.7	0.64	0.52	0.1		0.14	0.18	0.05	0.99		0.22	0.77	0.67	0.82	0.27
ORP		millivolts	87.7	-220.2	-19.2	65	35.1	-329	-1.7	35.1		-85.6	-81.5	-85.9	-92.1		-114.5	-119.2	-87.8	78.7	-208.4
pH		SU	6.98	6.94	7.5	6.95	7.22	7.22	6.5	7.16		9.09	7.11	7.62	7.76		7.47	8.09	7.49	7.41	7.5
SC		uS/cm	235	197	219	247	209	226	136	189		137	245	187	197		193	186	190	175	154
TEMP		deg c	16.4	12.6	9.1	15.5	9.7	17.01	10.4	15.9		9	12.1	10.3	10		11.9	13	13.3	13.3	12
TURB		ntu	4.2	4.05	4.21	2.5	4.3	2.99	4.11	2.19		4.31	2.01	1.56	2.44		3.16	0.9	0.66	0.87	1.43

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW43B								GAMW44											
Sample Date		2020-04-30	2020-10-16	2021-04-27		2021-09-14	2022-05-10	2022-10-06	2023-05-03	2018-06-13	2019-03-05	2019-04-22	2019-06-06	2019-07-24	2019-08-27		2019-10-01		2019-11-20	2020-04-29	2020-10-16
Sample Type		N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	FD	N	N	N	N
Chemical Name	Unit																				
CCR Appendix III																					
Boron	mg/L	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 J	0.025 J	0.032 J	0.1 U	0.036 J	0.1 U	0.032 J	0.026 J	0.03 J	0.034 J	0.1 U	0.10 U
Calcium	mg/L	40	39.3	41.2	40.4	38.2	39.1	37	38.2	25	24	24	20 J-	20	37	23	32	34	27	19.3	28.1
Chloride	mg/L	1.6	1.7	1.7	1.7	1.8	1.3	1.7	1.6	10	2.4	3.1		1.8	1.5	1.6	1.9 J+	1.9 J+	1.7	2.3	1.9
Fluoride	mg/L	0.19	0.15	0.19	0.19	0.15	0.15	0.18	0.18	0.096 J	0.13	0.16		0.1	0.19	0.11	0.099 J+	0.11 J+	0.096	0.18	0.054
pH	SU	8.2	7.8		8.04	7.64	7.8 J	8 J	7.7 J	6.77	6.23	6.41	5.99	6.6		6.31		6.91	6.22	6.41	6.5
Sulfate	mg/L	30.4	23.8	28.9 J+	27.9 J+	22.2	24.6	21.5	21.7	50	57	68		42	24	42	51 J+	51 J+	44	64	44.6
Total Dissolved Solids	mg/L	153	149	145	151	137	141	150	156	200	170	200		170	170	160	190	200	170	179	153
CCR Appendix IV																					
Antimony	mg/L	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	8.8E-05 J	0.0008 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.001 J	0.00072 J	0.001 U	0.0010 U
Arsenic	mg/L	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00049 J	0.00046 J	0.00044 J	0.0054	0.0019 J	0.0019 J	0.0045 J	0.0087	0.005 U	0.01	0.0095	0.0091	0.054	0.044	0.026
Barium	mg/L	0.012	0.011	0.012	0.011	0.011	0.0111	0.01 J+	0.012	0.024	0.024	0.028	0.032	0.025	0.011	0.024	0.031	0.032	0.034	0.024	0.025
Beryllium	mg/L	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	3.3E-05 J	0.0002 U	0.0002 U	0.001 U	0.00073 J	0.00083 J	0.00099 J	0.001 U	0.001 U	0.001 U	0.001 U	0.0008 J	0.00041 J	0.00034	0.00020 U
Cadmium	mg/L	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U
Chromium	mg/L	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.00063 J	0.002 U	0.0006 J	0.0023	0.0028	0.0029	0.0031	0.0028	0.002 U	0.0017 J	0.0012 J	0.0016 J	0.0023	0.0042	0.0020 U
Cobalt	mg/L	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00014 J	0.00012 J	0.00013 J	0.0025	0.0017	0.0019	0.0025	0.0025	0.001 U	0.0028	0.0039	0.0039	0.0079	0.0029	0.0033
Fluoride	mg/L	0.19	0.15	0.19	0.19	0.15	0.15	0.18	0.18	0.096 J	0.13	0.16		0.1	0.19	0.11	0.099 J+	0.11 J+	0.096	0.18	0.054
Lead	mg/L	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00015 J	0.0001 J	0.00014 J	0.001 U	0.0006 J	0.00045 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0006 J	0.001 U	0.001 U	0.0010 U
Lithium	mg/L	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.008 U	0.0038 J	0.0043 J	0.0042 J	0.005 J	0.008 U	0.0047 J	0.0042 J	0.0052 J	0.0042 J	0.008 U	0.0080 U
Mercury	mg/L	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U
Molybdenum	mg/L	0.0017	0.0022	0.0023	0.0021	0.0024	0.0022	0.0024	0.0022	0.013	0.01 U	0.01 U	0.0013 J	0.0012 J	0.0019 J	0.002 J	0.0037 J	0.0049 J	0.0058 J	0.0033	0.0029
Radium, Total	pci/l	0.403 U		0.985 U	0.731 U		1.35 U		1.3 U	0.649	0.362 U	0.543		0.435 U	0.496 U	0.973	0.622 U	0.445 U		1.16 U	
Selenium	mg/L	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0014 J	0.00096 J	0.00092 J	0.00093 J	0.005 U	0.005 U	0.005 U	0.005 U	0.0011 J	0.005 U	0.001 U	0.0010 U
Thallium	mg/L	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00094 J	0.00046 J	0.001 U	0.0010 U
Sample Parameters																					
DO	mg/L	0.12	0.38		0.51	0.27	0.38	0.02	0.12	0.68	0.05	3.85	1.95	3.04		1.06		0.96	0.39	1.85	0.9
ORP	millivolts	-151.2	-60.8		-108.7	-323.9	-129.8	-123.3	-129.6	51.6	101.4	134.8	166.1	75.1		28.7		83.1	-148.8	-1	109.9
pH	SU	8.2	8.03		8.04	7.64	7.27	7.92	9.36	6.77	6.23	6.41	5.99	6.6		6.31		6.91	6.22	6.41	5.87
SC	uS/cm	280	244.6		282	191	161	164	172	272	140	170	140	151		189		279	156	252	267.1
TEMP	deg c	10.2	12.4		11.4	12.88	11.4	12.6	9.8	12.8	6.02	9.1	12.1	14.3		15.7		16.1	11.7	8.8	14.2
TURB	ntu	2.74	2.13		2.38	1.37	2.09	2.23	1.84	4.38	3.09	4.96	5.75	4.69		4.78		3.65	4.4	12.28	3.22

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter
"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW44					GAMW44B													
Sample Date		2021-04-27	2021-09-15	2022-05-16	2022-10-07	2023-05-04	2018-06-13		2019-03-05	2019-04-22	2019-06-06	2019-07-24	2019-08-27	2019-10-02	2019-11-20	2020-04-29	2020-10-16		2021-04-27	2021-09-15
Sample Type		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	0.1 U	0.1 U	0.023 J	0.1 U	0.1 U	0.036 J	0.034 J	0.024 J	0.03 J	0.1 U	0.024 J	0.1 U	0.12	0.1 U	0.1 U	0.10 U	0.10 U	0.1 U	0.1 U
Calcium	mg/L	21.5	20.2	13.3	18.1	15.2	39	40	32	31	30	31	32	31	30	29.8	34.4	33.8	31.2	31.7
Chloride	mg/L	2.3	1.7	2.1	1.5	3.2	7.8	7.9	1.6	1.5		1.3	1.3	1.5	1.3	1.7	3.6	3.5	1.6	1.5
Fluoride	mg/L	0.19	0.13	0.17	0.071 J	0.13	0.1 J	0.11 J	0.13	0.13		0.14	0.13	0.15	0.15	0.13	0.11	0.12	0.14	0.18
pH	SU	6.21	6.21	6.2 J	6.2 J	6.3 J		7.29	7.79	7.62	7.52	8.28	7.64	7.16	7.44	8.31	7.9	7.9	8.22	7.81
Sulfate	mg/L	63.9 J+	44.8	51.4	43	45.7	24	25	14	16		11	7.8	7.6	10	7.6	10.4	9.8	12.3 J+	7.5
Total Dissolved Solids	mg/L	165	136	167	111	159	180	170	120	160		150	130	120	130	109	126	118	85	113
CCR Appendix IV																				
Antimony	mg/L	0.001 U	0.001 U	0.00032 J	0.001 U	0.00044 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U
Arsenic	mg/L	0.095	0.052	0.049	0.03	0.058	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U
Barium	mg/L	0.018	0.02	0.029	0.02	0.032	0.013	0.013	0.0098	0.0091	0.0084	0.0087	0.0087	0.0093	0.0081	0.0081	0.0092	0.0092	0.0084	0.0082
Beryllium	mg/L	0.0002 U	0.0002 U	0.00028	0.0001 J	0.0003	0.001 U	0.001 U	0.001 U	0.001 U	0.00031 J	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U
Cadmium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U
Chromium	mg/L	0.0034	0.002 U	0.005	0.0012 J	0.0061	0.0011 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.0020 U	0.002 U	0.002 U
Cobalt	mg/L	0.0026	0.0029	0.0013	0.0024	0.0017	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U
Fluoride	mg/L	0.19	0.13	0.17	0.071 J	0.13	0.1 J	0.11 J	0.13	0.13		0.14	0.13	0.15	0.15	0.13	0.11	0.12	0.14	0.18
Lead	mg/L	0.001 U	0.001 U	0.00078 J	0.001 U	0.0014	0.00048 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U
Lithium	mg/L	0.008 U	0.008 U	0.0099	0.008 U	0.01 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.0080 U	0.0080 U	0.008 U	0.008 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.0044	0.004	0.0027	0.0036	0.0037	0.0021 J	0.0021 J	0.0025 J	0.0026 J	0.0026 J	0.0021 J	0.0019 J	0.002 J	0.0022 J	0.0019	0.0017	0.0017	0.0022	0.002
Radium, Total	pci/l	0.365 U		1.21 U		1.35 U	0.306 U	0.368 U	0.35 U	0.312 U		0.438 U	0.465 U	0.446 U		0.409 U			1.03 U	
Selenium	mg/L	0.001 U	0.001 U	0.0012	0.001 U	0.00095 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	1.07	0.83	0.79	1.1	0.97		0.48	0.04	1.53	1.19	1.75	0.65	0.28	0.14	0.47		0.37	0.5	0.36
ORP	millivolts	-8.1	-294.6	-104.1	-149.2	-34.1		-55.9	-124	9.7	-126.1	-33.3	-122.7	115.3	-171.5	-143		-67.9	-125.8	-318
pH	SU	6.21	6.21	5.76	5.45	6.58		7.29	7.79	7.62	7.52	8.28	7.64	7.16	7.44	8.31		8.24	8.22	7.81
SC	uS/cm	257.8	192	133	150	145		248	148	150	144	143	154	153	122	202		212.3	210.9	158
TEMP	deg c	11.2	16.11	10.5	14.29	9		11.6	10.49	11.5	11.7	11.7	12.8	12.6	11.4	10.7		11.7	11.5	12.16
TURB	ntu	4.66	2.04	8.16	2.71	12.51		3.22	1.99	1.11	0.54	0.78	0.37	0.24	1.14	2.44		1.3	2.15	1.19

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW44B			GAMW51												GAMW51B				
	Sample Date	2022-05-16	2022-10-07	2023-05-04	2018-09-10	2018-10-25	2019-04-26	2019-11-12	2020-05-13	2020-10-27	2021-04-21	2021-09-29		2022-04-15	2022-09-30	2023-04-15	2018-09-10	2018-10-25	2019-04-26	2019-11-12	2020-05-13
	Sample Type	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Chemical Name	Unit																				
CCR Appendix III																					
Boron	mg/L	0.022 J	0.1 U	0.1 U	0.68	0.58	0.5	0.61	0.87	0.92	0.43	0.51	0.5	0.47	0.5	0.42	6.9	7.4	7.6	0.028 J	8.5
Calcium	mg/L	30.1	32.7	30.7	130	130	140	150	174	180	144	148	147	141	138	131	250	240	290	1 U	306
Chloride	mg/L	1.2	1.7	1.6	6.3	3.6	3.6	5.4	5.1	7.1	1.5	2.3	2.3	0.83	2.1	2.3	62	54	57	57	59.2
Fluoride	mg/L	0.098 J	0.13	0.13	0.44 J	0.41	0.39	0.4	0.27	0.42	0.26	0.34	0.34	0.29	0.36	0.32	0.79 J	0.8	0.81	0.83	0.62
pH	SU	7.7 J	8 J	8 J	8.08	7.69	7.14	6.78	7.14	7.3	7.19		7.04	7.2 J	7.3 J	7.2 J	8.72	8.86	7.48	7.15	7.93
Sulfate	mg/L	11.5	7.6	6.5	130	110	190	240	310	323	196	191	193	171	193	173	1300	1600	1400	1500	1440
Total Dissolved Solids	mg/L	103	110	81	550	530	620	680	747	755	604	597	600	537	595	523	2200	2200	2400	2300	2320
CCR Appendix IV																					
Antimony	mg/L	0.001 U	0.001 U	6.1E-05 J	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00013 J	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U
Arsenic	mg/L	0.00026 J	0.00022 J	0.0003 J	0.0032 J	0.0031 J	0.0016 J	0.0015 J	0.0018	0.0021	0.0016	0.0016	0.0016	0.0012	0.0015	0.0015	0.0017 J	0.0013 J	0.0034 J	0.005 U	0.0036
Barium	mg/L	0.008	0.0089	0.0084 J+	0.16	0.17	0.096	0.1	0.1	0.10	0.1	0.11	0.11	0.1	0.11	0.089	0.07	0.063	0.085	0.005 U	0.078
Beryllium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Cadmium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U
Chromium	mg/L	0.002 U	0.00049 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00036 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cobalt	mg/L	0.001 U	7.2E-05 J	6E-05 J	0.001	0.0011	0.0031	0.003	0.0031	0.0022	0.0033	0.0031	0.0031	0.0042	0.0031	0.0042	0.00028 J	0.00022 J	0.001 U	0.001 U	0.001 U
Fluoride	mg/L	0.098 J	0.13	0.13	0.44 J	0.41	0.39	0.4	0.27	0.42	0.26	0.34	0.34	0.29	0.36	0.32	0.79 J	0.8	0.81	0.83	0.62
Lead	mg/L	0.00019 J	0.00014 J	0.00026 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.008 U	0.008 U	0.01 U	0.0073 J	0.0052 J	0.0049 J	0.006 J	0.012	0.010	0.008 U	0.012	0.012	0.008 U	0.008 U	0.01 U	0.05	0.048	0.064	0.008 U	0.076
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.0019	0.0019	0.0018	0.028	0.022	0.016	0.018	0.023	0.031	0.011	0.0092	0.0098	0.0085	0.0094	0.0074	0.13	0.13	0.18	0.01 U	0.18
Radium, Total	pci/l	1.49 U		2.13 U	1.43	0.961	0.536		0.96 U		1.23 U			1.53 U	1.92 U	1.63 U	2.01	2.75	2.74		2.81
Selenium	mg/L	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00035 J	0.005 U	0.0011 J	0.005 U	0.005 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																					
DO	mg/L	0.19	0.33	0.12	0.31	1.9	1.12	0.09	0.13	0.83	0.48		0.27	0.58	0.02	0.28	0.26	1.08	1.69	0.1	0.13
ORP	millivolts	-151.1	-245.4	-92.6	-124.4	-247.2	17.2	-191.3	-89.7	-86	-100.6		0.197	-100.9	-80.9	-41.6	-169.2	-258.6	25.8	-222.3	-142.8
pH	SU	7.19	7.19	7.94	8.08	7.69	7.14	6.78	7.14	7.1	7.19		7.04	6.95	7.14	6.65	8.72	8.86	7.48	7.15	7.93
SC	uS/cm	131	140	138	1076	806	661	640	1121	910	873		937	820	707	641	3438	2720	2139	1796	3199
TEMP	deg c	11.3	11.55	10.4	15.79	15.08	9.1	14.1	11.7	14.2	11.1		15.9	11.3	14.4	12.58	14.43	13.63	10	12.9	13.6
TURB	ntu	1.37	1.34	0.66	0.94	1	2.91	4.58	4.9	3.48	4.2		4.12	19.48	10.21	6.39	2.98	1.49	1.89	3.16	2.78

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter
"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

		Location	GA,251B							GAMW57											
		Sample Date	2020-10-27	2021-04-21	2021-09-29	2022-04-15	2022-09-30	2022-09-30	2023-04-15	2019-07-23	2019-08-29	2019-10-01	2019-11-19	2020-04-28	2020-10-16	2021-04-23	2021-09-15	2022-05-18		2022-10-07	2023-05-04
		Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Chemical Name		Unit																			
CCR Appendix III																					
Boron		mg/L	7.5	7.2	7	7.6	7	7	7.1	0.037 J	0.042 J	0.023 J	0.038 J	0.1 U	0.10 U	0.1 U	0.1 U	0.03 J	0.029 J	0.1 U	0.1 U
Calcium		mg/L	256	261	282	247	233	234	209	22	25	23	24	19.9	23.4	13.9	21.8	17	16.7	21.7	18.9
Chloride		mg/L	62.2	54.8	53.2	53.4	47.6	50.3	46.5	1.5	1.2	1 J+	1.3	2.4	1.2	1.6	1	2.6	2.8	1.1	2.2
Fluoride		mg/L	0.92	0.45	0.82	0.73	0.89	0.88	1	0.031 J	0.034 J	0.033 J+	0.031 J	0.05 U	0.050 U	0.05 UJ	0.073	0.05 U	0.05 U	0.05 U	0.05 U
pH		SU	7.7	8.11	7.83	7.7 J	7.6 J	7.7 J	7.7 J	7.42	7.7	7.58	7.61	6.94	8.2	6.22	8.03	6.7 J	6.6 J	8 J	7.1 J
Sulfate		mg/L	1610	1490	1480	1440	1150	1340	1230	33	35	31 J+	34	39.4	28.4	38	25.8	58.3	58.5	27.6	47.9
Total Dissolved Solids		mg/L	2360	2180 J	2270	2160	2140	2080	1930	150	120	120	130	108	104	58	101	140	132	86	95
CCR Appendix IV																					
Antimony		mg/L	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	8.7E-05 J	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Arsenic		mg/L	0.0034	0.004	0.0044	0.0036	0.0039	0.004	0.0041	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00029 J	0.00012 J
Barium		mg/L	0.068	0.072	0.077	0.059	0.06	0.059	0.056	0.012	0.008	0.006	0.0088	0.012	0.0059	0.014	0.0055	0.019	0.019	0.0054	0.016
Beryllium		mg/L	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	8.4E-05 J	7.4E-05 J	0.0002 U	5.9E-05 J
Cadmium		mg/L	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.00013 J	0.00013 J	0.0002 U	9.3E-05 J
Chromium		mg/L	0.0020 U	0.002 U	0.002 U	0.002 U	0.00063 J	0.00064 J	0.00059 J	0.0014 J	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.00076 J	0.00082 J	0.00089 J	0.002 U
Cobalt		mg/L	0.0010 U	0.001 U	0.001 U	0.00034 J	0.00036 J	0.00035 J	0.00032 J	0.00074 J	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0014	0.001 U	0.0011	0.0011	0.00013 J	0.0015
Fluoride		mg/L	0.92	0.45	0.82	0.73	0.89	0.88	1	0.031 J	0.034 J	0.033 J+	0.031 J	0.05 U	0.050 U	0.05 UJ	0.073	0.05 U	0.05 U	0.05 U	0.05 U
Lead		mg/L	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00051 J
Lithium		mg/L	0.063	0.071	0.078	0.066	0.071	0.071	0.066	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U
Mercury		mg/L	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum		mg/L	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.016	0.022	0.0055 J	0.024	0.008	0.0051	0.0011	0.003	0.0015	0.0015	0.0015	0.001
Radium, Total		pci/l		3.57		3.54	3.78	3.4	2.95	0.419 U	0.453 U	0.548 U		0.581 U		0.194 U		1.37 U	1.25 U		1.61 U
Selenium		mg/L	0.0010 U	0.001 U	0.001 U	0.001 U	0.0004 J	0.001 U	0.00048 J	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Thallium		mg/L	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0003 J	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																					
DO		mg/L	2.12	0.55	0.29	0.54		0.04	0.15	5.56	3.89	3.94	2.67	7.44	5.35	4.93	6.33		6.91	4.49	7.07
ORP		millivolts	-152.7	-108.7	0.246	-160.1		-125.2	-123.6	54.6	43.1	126.2	-127	168.6	147	111.6	-297.7		106.1	-102.3	14.9
pH		SU	8.07	8.11	7.83	7.81		8	7.63	7.42	7.7	7.58	7.61	6.94	8.88	6.22	8.03		5.56	7.74	7.47
SC		uS/cm	2352	3094	303.9	2880		2092	2107	127	152	133	124	186	177	124	136		120	120	132
TEMP		deg c	12.9	12.4	14.2	12.9		13	14.01	12.4	12.3	13.3	11.6	10.2	12.2	10.25	12.45		9.99	11.97	9.6
TURB		ntu	1.65	1.82	1.43	1.61		1.95	0.85	4.81	2.82	2.9	3.06	3.82	3.9	2.7	2.63		3.85	1.63	2.79

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter
"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

Location		GAMW57B											GAMW58							
Sample Date		2019-07-23	2019-08-29	2019-10-01	2019-11-19	2020-04-28	2023-10-16	2021-04-23	2021-09-15	2022-05-18	2022-10-10	2023-05-05	2019-07-22		2019-08-29	2019-10-01	2019-11-20	2020-04-30	2020-10-19	2021-04-23
Sample Type		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	0.095 J	0.19	0.031 J	0.16	0.1 U	0.10 U	0.1 U	0.13	0.072 J	0.099 J	0.064 J	0.043 J	0.046 J	0.047 J	0.028 J	0.037 J	0.1 U	0.10 U	0.1 U
Calcium	mg/L	46	48	39	46	40.5	44.9	43.1	47.5	43.2	48	47.8	10	10	13	38	8.8	10.4	10.8	7.3
Chloride	mg/L	9.4	12	8.9 J+	11	10.4	10.7	11.2	12.4	11.4	11.7	15.3	1.2	1.3	1.1	3.9 J+	1.5	1.2	1.1	0.95
Fluoride	mg/L	0.14	0.13	0.14 J+	0.14	0.13	0.11	0.13 J-	0.17	0.12	0.13	0.15	0.32	0.31	0.31	0.16 J+	0.29	0.28	0.38	0.22 J-
pH	SU	8.21	7.4	7.67	7.53	8.05	7.6	7.95	7.33	7.6 J	7.6 J	7.8 J		5.42	5.82	6.18	5.02	5.64	6.3	4.4
Sulfate	mg/L	23	18	17 J+	14	19.5	24.0	19.1	24.4	15.5	18.5	16.9	43	43	41	25 J+	40	53.8	39.6	45
Total Dissolved Solids	mg/L	210	220	190	190	161	179	150	205	198	189	166	95 J+	100 J+	110	190	100	89	67	44 J
CCR Appendix IV																				
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U
Arsenic	mg/L	0.00075 J	0.00076 J	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00066 J	0.0006 J	0.00063 J	0.005 U	0.005 U	0.00098 J	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U
Barium	mg/L	0.024	0.029	0.018	0.025	0.019	0.021	0.02	0.022	0.019	0.021	0.02	0.055	0.055	0.047	0.017	0.058	0.041	0.039	0.059
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0011	0.0013	0.00097 J	0.001 U	0.0015	0.00059	0.00076	0.0012
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00031 J	0.00035 J	0.001 U	0.001 U	0.0004 J	0.00028	0.00020 U	0.00025
Chromium	mg/L	0.0021	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.00039 J	0.00048 J	0.00036 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U
Cobalt	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	8.4E-05 J	0.00019 J	9.5E-05 J	0.011	0.011	0.01	0.001 U	0.0096	0.011	0.0083	0.01
Fluoride	mg/L	0.14	0.13	0.14 J+	0.14	0.13	0.11	0.13 J-	0.17	0.12	0.13	0.15	0.32	0.31	0.31	0.16 J+	0.29	0.28	0.38	0.22 J-
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0011	0.001	0.0011	0.001 U	0.0012	0.001 U	0.0010 U	0.001 U
Lithium	mg/L	0.0029 J	0.0058 J	0.008 U	0.0044 J	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.0018 J	0.002 J	0.0017 J	0.0028 J	0.0021 J	0.008 U	0.0080 U	0.008 U
Mercury	mg/L	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U
Molybdenum	mg/L	0.0061 J	0.011	0.0028 J	0.0073 J	0.0033	0.0049	0.0028	0.0067	0.0032	0.0047	0.003	0.01 U	0.01 U	0.0016 J	0.0059 J	0.0017 J	0.001 U	0.0010 U	0.001 U
Radium, Total	pci/l	0.502	0.435 U	0.543 U		1.72		0.368 U		1.19 U		1.4 U	0.54 U	0.599 U	0.457 U	1.2		1.18		1.95
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00038 J	0.001 U	0.001 U	0.00064 J	0.001 U	0.0010 U	0.001 U
Sample Parameters																				
DO	mg/L	1.12	0.78	0.35	0.22	0.09	0.35	0.22	0.37	0.25	0.3	0.32		4.29	1.88	0.63	3.38	2.72	1.52	4.1
ORP	millivolts	-98.1	-109.6	94.6	-211.9	-148.6	-51.1	-132.7	-316.7	-104.9	-127	-71.6		114.8	95.4	102.8	-53.6	139.6	207.7	291.1
pH	SU	8.21	7.4	7.67	7.53	8.05	7.9	7.95	7.33	7.01	7.91	7.89		5.42	5.82	6.18	5.02	5.64	5.37	4.4
SC	uS/cm	237	277	213	190	319	317.8	291	284	200	221	232		8.6	99	105	67	159	121.9	110
TEMP	deg c	11.8	11.8	12.5	10.8	11.6	11.4	11.2	11.54	11.3	12.8	10.6		13.1	13.8	14.5	12	8.4	12.7	9.27
TURB	ntu	4.9	4.39	0.82	1.28	4.41	2.58	3.04	1.65	1.41	2.24	0.95		4.02	1.8	0.61	1.98	2.20	1.45	0.84

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

		Location	GAMW58				GAMW58B											
		Sample Date	2021-09-15	2022-05-19	2022-10-18	2023-05-05	2019-07-22	2019-08-29	2019-10-01	2019-11-20	2020-04-30	2020-10-19	2021-04-23	2021-09-15		2022-05-19	2022-10-18	2023-05-05
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Chemical Name		Unit																
CCR Appendix III																		
Boron		mg/L	0.1 U	0.036 J	0.1 U	0.1 U	0.047 J	0.043 J	0.029 J	0.026 J	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	0.038 J	0.038 J	0.1 U
Calcium		mg/L	10.9	9.4	11.7	9.5	38	39	39	36	38.7	39.5	37.8	29.2	38.6	34.6	39.2	39.4
Chloride		mg/L	1.1	0.8	1	1	4	3.8	3.9 J+	3.7	3.9	4.3	3.6	2.1	4	3.7	4.3	4.1
Fluoride		mg/L	0.35	0.38	0.39	0.48	0.17	0.17	0.17 J+	0.16	0.17	0.14	0.15 J-	0.12	0.19	0.18	0.15	0.18
pH		SU	5.87	5.4 J	6.3 J	6.1 J	8.74	8.33	7.57	7.49	8.26	7.8	7.92		7.32	7.8 J	7.8 J	7.9 J
Sulfate		mg/L	38.9	44.5	42.6	43.1	24	21	26 J+	25	24.1	26.7	24.9	32.1	23.6	24.9	24.4	24.1
Total Dissolved Solids		mg/L	82	91	84	60	180	200	180	160	155	148	124	135	161	172	165	131
CCR Appendix IV																		
Antimony		mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.00063 J	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Arsenic		mg/L	0.001 U	0.00035 J	0.0021	0.003	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00062 J	0.00061 J	0.0006 J
Barium		mg/L	0.041	0.058	0.04	0.048	0.018	0.02	0.017	0.017	0.016	0.016	0.015	0.0044	0.015	0.025	0.016	0.014
Beryllium		mg/L	0.00075	0.0011	0.0007	0.00082	0.00035 J	0.001 U	0.00055 J	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.00013 J	0.0002 U	0.0002 U
Cadmium		mg/L	0.0002 U	0.00033	0.00015 J	0.0001 J	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	5.1E-05 J	0.0002 U	0.0002 U
Chromium		mg/L	0.002 U	0.00099 J	0.001 J	0.001 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00051 J	0.00035 J
Cobalt		mg/L	0.0093	0.012	0.01	0.012	0.00021 J	0.00019 J	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.0015	0.00015 J	0.00011 J
Fluoride		mg/L	0.35	0.38	0.39	0.48	0.17	0.17	0.17 J+	0.16	0.17	0.14	0.15 J-	0.12	0.19	0.18	0.15	0.18
Lead		mg/L	0.001 U	0.0005 J	0.00056 J	0.00028 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00014 J	0.001 U	0.001 U
Lithium		mg/L	0.008 U	0.008 U	0.008 U	0.01 U	0.0031 J	0.0025 J	0.0032 J	0.0019 J	0.008 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U
Mercury		mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum		mg/L	0.001 U	0.00048 J	0.0012	0.00052 J	0.023	0.02	0.0069 J	0.011	0.0035	0.0034	0.0034	0.001 U	0.0041	0.0025	0.0034	0.003
Radium, Total		pci/l		0.682 U		1.38 U	0.504 U	0.506 U	0.603 U		0.416 U		0.703 U			0.828 U		1.52 U
Selenium		mg/L	0.0025	0.0046	0.001 U	0.0029 J-	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.00076 J	0.001 U	0.001 UJ
Thallium		mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0005 J	0.001 U	0.00067 J	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																		
DO		mg/L	0.98	1.98	0.11	0.38	1.21	8.56	0.43	0.19	0.11	0.39	0.3		0.73	0.33	0.03	0.12
ORP		millivolts	-314	101.2	62.4	-39.8	-165	-248.6	90	-179.2	-153.7	-69.1	-140.4		-298.9	-125.3	-137.1	-103.6
pH		SU	5.87	4.53	6.08	6.85	8.74	8.33	7.57	7.49	8.26	8.12	7.92		7.32	7	7.97	7.95
SC		uS/cm	102	90	90	85	204	214	204	168	292	280.7	252		218	180	180	191
TEMP		deg c	13.67	10.3	12.1	8.9	11	12.2	12.8	11.1	10.1	11	10.84		11.37	12	10.3	10.6
TURB		ntu	1.27	0.89	3.84	4.41	4.35	2.75	0.49	1.02	4.11	3.67	2.96		2.66	1.79	2.49	1.42

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW59										GAMW59B								
	Sample Date	2019-07-19	2019-11-11	2020-05-12	2020-10-28	2021-04-21	2021-09-29	2022-04-14		2022-10-03	2023-04-15	2019-07-19	2019-11-11	2020-05-12	2020-10-28	2021-04-22	2021-09-29	2022-04-14	2022-10-03	2023-04-15
	Sample Type	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	1.2	1.4	1.1	1.7	0.89	1	0.7	0.71	0.59	0.61	4.8	5.4	7.2	6.4	5.4	6.3	6.2	5.5	5.7
Calcium	mg/L	250	280	324	239	209	217	228	227	239	256	310	330	249	208	292	253	258	223	155
Chloride	mg/L	6.5	9.8	11.4	5.0	11.3	21.1	16.3	16.1	12.8	2.5	38	44	56.2	46.7	52	51.3	53.6	58.3	66.4
Fluoride	mg/L	0.65	0.63	0.44	0.59	0.42	0.7	0.52	0.51	0.64	0.7	0.46	0.46	0.55	0.56	0.45	0.53	0.36	0.45	0.5
pH	SU	7.51	7.29	7.25	7.2	7.53	7.26	7.2 J	7.2 J	7.4 J	7.3 J	7.83	7.47	7.73	7.6	7.6	7.57	7.3 J	7.5 J	7.6 J
Sulfate	mg/L	580	770 J-	686	692	473	434	381	376	431	554	1400	1600 J-	1310	1130	1180	1180	1190	968	858
Total Dissolved Solids	mg/L	1100	1200	2040	2310	756	866	832	796	942	1020	2100	2100	1310	1790	1860	1950	1880	1790	1670
CCR Appendix IV																				
Antimony	mg/L	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	8.6E-05 J	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Arsenic	mg/L	0.0033 J	0.0024 J	0.0017	0.0017	0.0012	0.002	0.00099 J	0.00097 J	0.0014	0.00083 J	0.0015 J	0.00081 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.00076 J	0.00074 J	0.0009 J
Barium	mg/L	0.1	0.088	0.099	0.076	0.048	0.055	0.078	0.077	0.085	0.079	0.065	0.058	0.041	0.039	0.037	0.04	0.036	0.033	0.031
Beryllium	mg/L	0.001 U	0.00044 J	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Cadmium	mg/L	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00029 J	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0006 J
Cobalt	mg/L	0.0005 J	0.00081 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.00093 J	0.00091 J	0.00069 J	0.001	0.0003 J	0.00023 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.00036 J	0.00039 J	0.00034 J
Fluoride	mg/L	0.65	0.63	0.44	0.59	0.42	0.7	0.52	0.51	0.64	0.7	0.46	0.46	0.55	0.56	0.45	0.53	0.36	0.45	0.5
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	mg/L	0.015	0.016	0.025	0.015	0.012	0.018	0.008 U	0.013	0.013	0.01 U	0.019	0.019	0.023	0.014	0.017	0.019	0.018	0.014	0.01
Mercury	mg/L	0.0002 U	0.0002 UJ	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.03	0.046	0.014	0.048	0.03	0.045	0.028	0.028	0.025	0.028	0.06	0.092	0.085	0.052	0.044	0.05	0.043	0.052	0.08
Radium, Total	pci/l	1.11		1.83		1.17 U		1.61 U	1.43 U	1.46 U	1.45 U	2.3		1.51		1.76		2.32	1.47	1.8
Selenium	mg/L	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0003 J
Thallium	mg/L	0.001 U	0.00049 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00034 J	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	0.77	0.21	0.12	0.43	0.21	0.28		0.49	0.04	0.16	0.55	0.11	0.13	0.32	0.49	0.29	0.52	0.05	0.17
ORP	millivolts	-94.6	154.8	-86	-36.1	-105.5	0.202		-115.4	-72.7	-41.7	-117.3	-214.4	-126.7	-64.1	-119.4	0.231	-136.9	-98.1	-93.1
pH	SU	7.51	7.29	7.25	7.49	7.53	7.26		7.27	7.39	6.96	7.83	7.47	7.73	8.15	7.6	7.57	7.46	7.64	7.31
SC	uS/cm	1264	1132	1669	1595	1038	125.5		1190	1072	1054	2082	1837	2891	2638	2650	264.7	2540	1901	1874
TEMP	deg c	20.9	18	13.4	16.9	11.28	22.2		11.9	17.1		16	14.3	13.3	14.2	13.1	17.4	13.7	14.2	14.88
TURB	ntu	1.5	2.41	4.87	3.57	4.8	4.52		4.77	3.82	3.07	4.84	2.55	2.31	2.7	1.46	1.58	1.89	2.09	0.76

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW60													GAMW60B					
	Sample Date	2019-07-22	2019-11-11		2020-05-11	2020-10-28		2021-04-21	2021-09-24	2022-04-13	2022-09-30	2023-04-20		2022-09-30	2019-07-19	2019-11-11	2020-05-11	2020-10-28	2021-04-21	2021-09-24
	Sample Type	N	FD	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Chemical Name	Unit																			
CCR Appendix III																				
Boron	mg/L	2.1	1.4	1.5	1.4	1.1	1.1	1	0.97	0.97	2.3	1.2	1.2	2.3	8.1	7.2	7.5	7.3	6.5	7.3
Calcium	mg/L	330	350	350	374	293	285	343	379	410	274	389	385	274	280	300	334	304	351	309
Chloride	mg/L	7.8	11	11	12	18.1	18.0	17.2	16.5	15.9 J	18.3	13.8	13.9	18.3	19	18	17.6	17.4	14.3	69.6
Fluoride	mg/L	0.65	0.64	0.66	0.44	0.57	0.57	0.3	0.51	0.46	0.58	0.5	0.5	0.58	0.37	0.39	0.36	0.53	0.34	1.1
pH	SU	7.34		7.15	7.22	7.3	7.2	7.05	7.01	7.2 J	7.3 J	7.3 J	7.2 J	7.3 J	8.41	7.78	8	7.5	7.74	7.76
Sulfate	mg/L	890	880 J-	890 J-	809	656	654	748	1050	872	593	859	826	593	1200	1200 J-	1080	1160	1140	443
Total Dissolved Solids	mg/L	1400	1500 J	780 J	1460	1130	1120	1300	1540	1480	1220	1490	1480	1220	1700	1600	1640	1700	2710	1440
CCR Appendix IV																				
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U	0.00021 J	0.00015 J	0.00015 J	0.00016 J	0.00015 J	0.002 U	0.002 U	0.001 U	0.0010 U	0.001 U	0.001 U
Arsenic	mg/L	0.005 U	0.0009 J	0.00086 J	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U	0.00026 J	0.00031	0.00038 J	0.00035 J	0.00031 J	0.00088 J	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U
Barium	mg/L	0.044	0.036	0.036	0.029	0.028	0.028	0.027	0.031	0.027	0.027	0.03	0.03	0.027	0.06	0.063	0.064	0.071	0.077	0.063
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	.00007 J	4E-05 J	4E-05 J	7E-05 J	0.001 U	0.001 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U
Cobalt	mg/L	0.0011	0.0019	0.002	0.0017	0.0011	0.0012	0.0013	0.002	0.0014	0.0027	0.0016	0.0015	0.0027	0.00021 J	0.00024 J	0.001 U	0.0010 U	0.001 U	0.001 U
Fluoride	mg/L	0.65	0.64	0.66	0.44	0.57	0.57	0.3	0.51	0.46	0.58	0.5	0.5	0.58	0.37	0.39	0.36	0.53	0.34	1.1
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U
Lithium	mg/L	0.0068 J	0.008 U	0.008 U	0.016	0.0080 U	0.0080 U	0.012	0.015	0.013	0.008 U	0.01 U	0.01 U	0.008 U	0.0067 J	0.008 U	0.015	0.0086	0.034	0.045
Mercury	mg/L	0.0002 UJ	0.0002 UJ	0.0002 UJ	0.0002 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U	0.00020 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.042	0.035	0.035	0.019	0.024	0.024	0.013	0.015	0.01	0.057	0.014	0.014	0.057	0.37	0.39	0.38	0.49	0.35	0.37
Radium, Total	pci/l	0.504 U			0.403 U			1.29 U		1.6 UJ	1.71 U	1.55 UJ	1.97 UJ	1.71 U	2.25		2.23		3.02	
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.0012	0.0010 U	0.0010 U	0.0017	0.001 U	0.0018	0.00097 J	0.0057	0.0055	0.00097 J	0.005 U	0.005 U	0.001 U	0.0010 U	0.001 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U
Sample Parameters																				
DO	mg/L	1.06		0.32	0.16		0.51	1.34	0.29	0.65	6.52		0.27	6.52	0.67	0.14	0.13	0.34	0.56	0.25
ORP	millivolts	23.5		-152.8	8.6		217.1	84.3	0.56	136.1	-181.8		53.1	-181.8	-160.7	-202.1	-145.1	-63.5	-101.3	0.238
pH	SU	7.34		7.15	7.22		7.02	7.05	7.01	6.92	7.01		6.66	7.01	8.41	7.78	8	8.66	7.74	7.76
SC	uS/cm	1437		1182	1871		1580	1747	187.2	1870	1.28		1486	1280	1643	1320	2131	2216	2181	209.8
TEMP	deg c	17.6		15.3	11		16.7	11.5	20.7	11.7	18.22		14.74	18.22	15.8	12.8	12.3	13.7	12.2	14.9
TURB	ntu	2.46		2.11	3.58		0.94	0.9	1.56	2.14	0.99		1.36	0.99	4.1	3.83	4.35	3.43	1.04	2.05

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

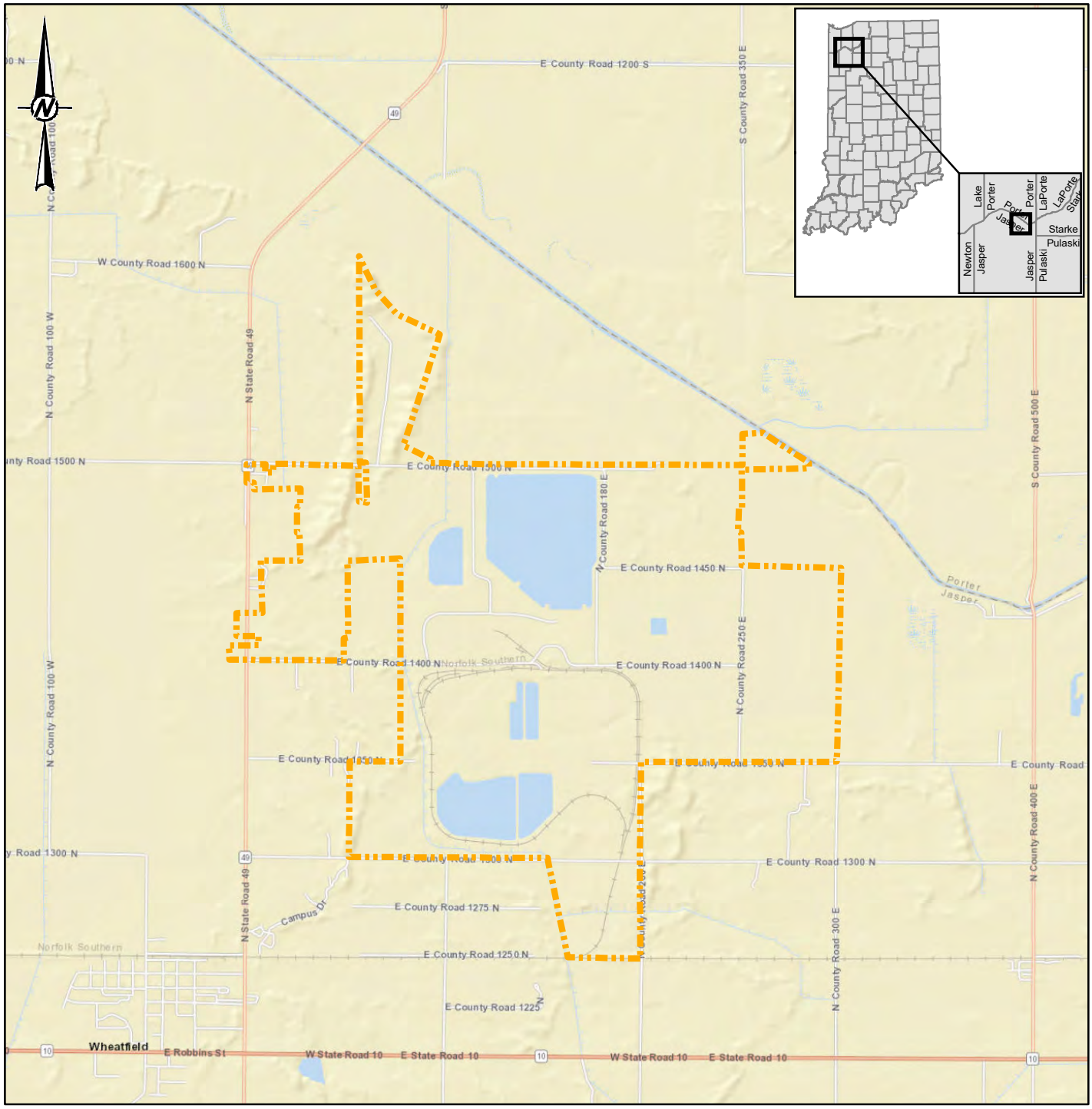
Table 4: Groundwater Analytical Data
CCR Unit R. M. Schahfer Waste Disposal Area
NIPSCO LLC R. M. Schahfer Generating Station
Wheatfield, Indiana

	Location	GAMW60B			GAMW68						GAMW68B						
	Sample Date	2022-04-13	2022-09-30	2023-04-20	2020-10-29	2021-04-22	2021-09-17	2022-04-27	2022-10-10	2023-05-01	2020-10-29	2021-04-22	2021-09-17	2022-04-27	2022-10-10	2023-05-01	
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Chemical Name	Unit																
CCR Appendix III																	
Boron	mg/L	7.3	5.4	7.1	0.10 U	0.1 U	0.1 U	0.023 J	0.1 U	0.1 U	0.10 U	0.1 U	0.1 U	0.036 J	0.1 U	0.1 U	0.1 U
Calcium	mg/L	364	421	402	62.7	60.7	66.4	60.3	58.8	62.4	44.4	43.5	44.7	44.2	48.9	48.4	47
Chloride	mg/L	14.8 J	10.7	12.1	24.7	22.8	20.4	18.9	17.3	19.5	20.3	19.5	18.4	15.5	14.4	14.4	14.6
Fluoride	mg/L	0.63	0.52	0.54	0.20	0.16	0.28	0.21	0.19	0.2	0.15	0.1	0.2	0.17	0.13	0.18	0.17
pH	SU	7.4 J	7.4 J	7.4 J	7.8	7.82	7.75	7.5 J	7.7 J	8.2 J	7.8	8.35	7.99	7.7 J	7.8 J	6.8 J	6.9 J
Sulfate	mg/L	1110	1230	1050	77.1	68.6	81.3	62.1	73.7	64	80.7	62.5	63.5	68.3	88.2	70.8	71
Total Dissolved Solids	mg/L	1710	1970	1880	301	320	315	249	273	260	256	2040	242	221	257	202	229
CCR Appendix IV																	
Antimony	mg/L	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.00025 J	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Arsenic	mg/L	0.00027 J	0.00024 J	0.0002 J	0.0010 U	0.001 U	0.001 U	0.00057 J	0.00083 J	0.003	0.0010 U	0.001 U	0.001 U	0.00023 J	0.00022 J	0.00023 J	0.00024 J
Barium	mg/L	0.065	0.071	0.066	0.078	0.085	0.1	0.081	0.09	0.1	0.11	0.11	0.1	0.098	0.1	0.098	0.099
Beryllium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Cadmium	mg/L	4.1E-05 J	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	1.4E-05 J	0.0002 U
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.00033 J	0.002 U	0.0020 U	0.002 U	0.002 U	0.002 U	0.00031 J	0.002 U	0.002 U
Cobalt	mg/L	0.00036 J	0.00053 J	0.00054 J	0.0010 U	0.001 U	0.001 U	0.00056 J	0.00064 J	0.00065 J	0.0010 U	0.001 U	0.001 U	0.001 U	0.00017 J	4.3E-05 J	4.4E-05 J
Fluoride	mg/L	0.63	0.52	0.54	0.20	0.16	0.28	0.21	0.19	0.2	0.15	0.1	0.2	0.17	0.13	0.18	0.17
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0003 J	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	4.9E-05 J	4E-05 J
Lithium	mg/L	0.058	0.062	0.077	0.0080 U	0.008 U	0.0081	0.008 U	0.008 U	0.01 U	0.0080 U	0.008 U	0.008 U	0.008 U	0.008 U	0.01 U	0.01 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.38	0.18	0.24	0.0034	0.0035	0.0045	0.0032	0.0035	0.0033	0.0022	0.0022	0.0027	0.0031	0.0023	0.0021	0.0021
Radium, Total	pci/l	2.5 J	3.32	3.66 J-		0.285 U		1.62 U	1.9 U	1.49 U		1.35 U		1.46 U	1.79 U	1.13	1.24 U
Selenium	mg/L	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0010 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sample Parameters																	
DO	mg/L	0.53	0.83	0.09	0.5	0.51	0.28	0.62	0.18	0.24	1.41	0.5	0.21	0.52	0.06		0.05
ORP	millivolts	-152.8	-238	-106.7	157.2	-39.2	0.187	-81.6	-83.2	-117.8	-163	-154.3	0.216	-140.7	-141.6		-193.7
pH	SU	7.65	7.3	7.35	8.32	7.82	7.75	7.56	7.74	8.83	8.09	8.35	7.99	7.69	8.09		9.36
SC	uS/cm	2080	1640	1701	532	490	515	450	332	297	336	410.1	413	400	286		271
TEMP	deg c	13.1	14.43	13.9	14.5	9.7	16	9.4	14.8	14.08	12.5	11.6	13.5	11.7	13.1		9.9
TURB	ntu	3.31	1.4	1.58	1.05	2.02	3.99	4.69	3.42	7.89	1.65	3.57	3.56	3.76	3.41		4.03

Note:
mg/L = milligrams per liter
uS/cm = micro Siemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
SU = Standard Units
pCi/L = picocuries per liter

"U" = Indicates the result was not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.
"J" = Indicates the result is estimated.
"J+" = Indicates the result is estimated may be biased high.
"J-" = Indicates the result is estimated and may be biased low.
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.
"O" = Indicates the result was identified as an outlier and removed from the data set.

Preapred by: GRD
Checked by: DFSC
Reviewed by: JBG



LEGEND

Approximate Property Line

0 0.75 1.5

1 " = 0.75 miles Miles

REFERENCE(S)

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CLIENT

NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC

PROJECT

R.M. SCHAHFER GENERATING STATION
WHEATFIELD, INDIANA

TITLE

SITE LOCATION MAP

CONSULTANT

wsp

YYYY-MM-DD	1/04/2021
DESIGNED	DFSC
PREPARED	SHL
REVIEWED	DFSC
APPROVED	MAH

PROJECT NO.	CONTROL	REV.	FIGURE
31404789.011	A	0	1

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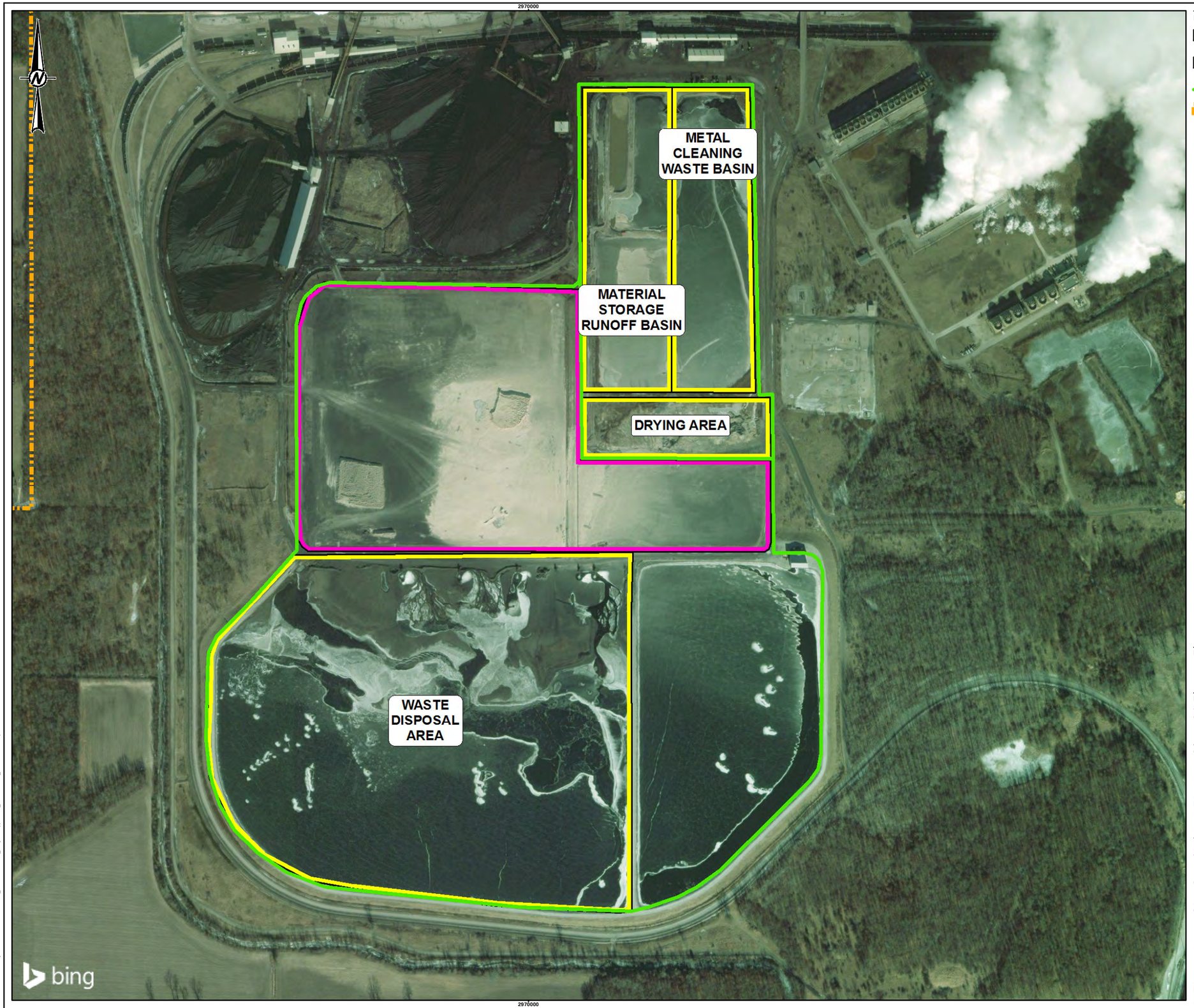
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

- CCR Units
- Approximate Extent of Inactive Retired Waste Disposal Basin
- Slurry Wall
- Approximate Property Line

0 1,000

1 " = 500 feet Feet

NOTE(S)

REFERENCE(S)

SERVICE LAYER CREDITS: © 2018 MICROSOFT CORPORATION © 2018 DIGITALGLOBE ©CNES (2018) DISTRIBUTION AIRBUS DS

CLIENT

NORTHERN INDIANA PUBLIC SERVICE COMPANY

PROJECT

NORTHERN INDIANA PUBLIC SERVICE COMPANY
R.M. SCHAHFER GENERATING STATION
WHEATFIELD, INDIANA

TITLE

CCR UNIT LOCATION MAP - IMPOUNDMENTS

CONSULTANT

wsp

YYYY-MM-DD	9/28/2018
DESIGNED	DFSC
PREPARED	SHL
REVIEWED	DFSC
APPROVED	MAH

PROJECT NO.	CONTROL	REV.	FIGURE
31404789.011	A	0	2

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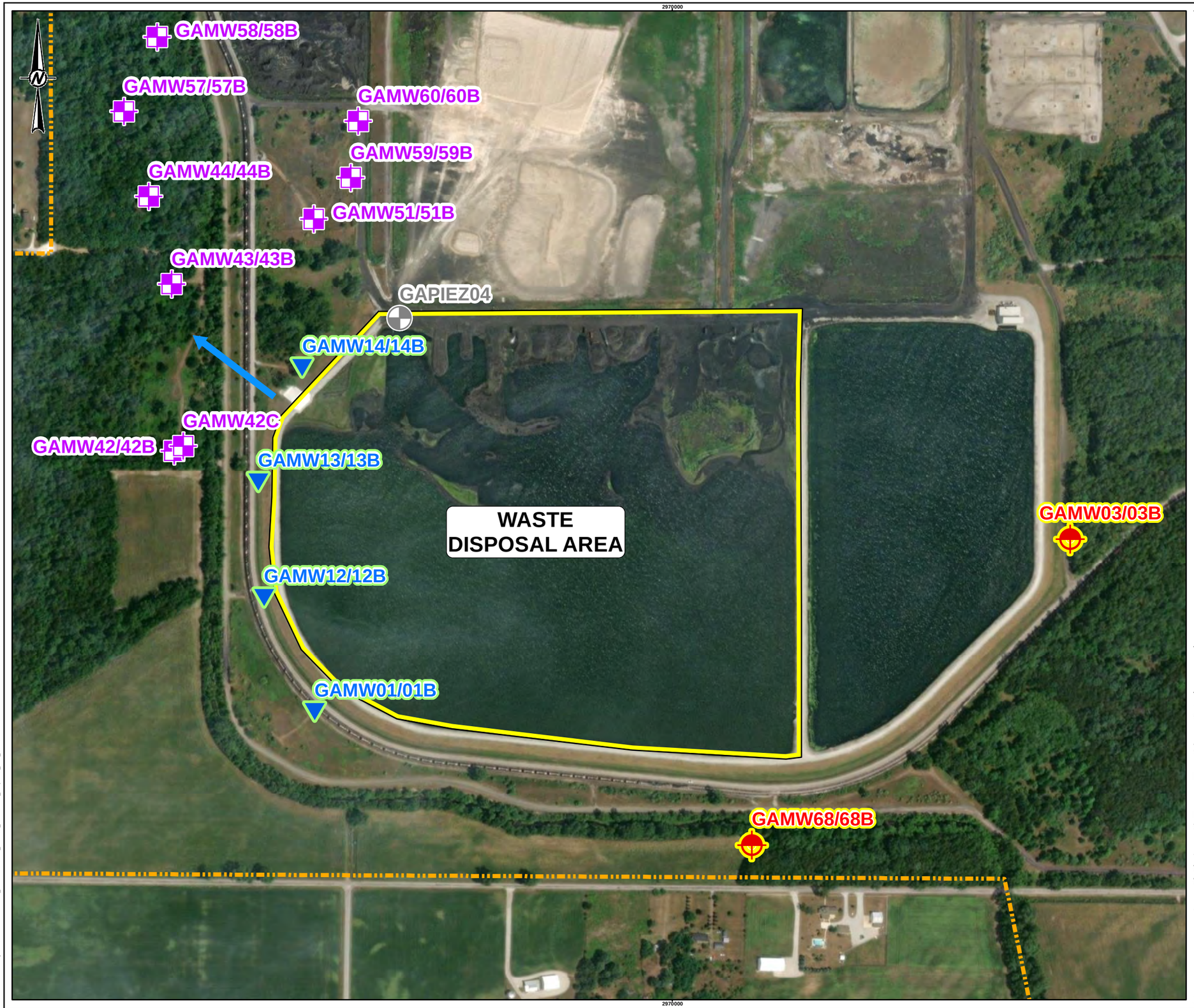
1in 0



LEGEND

- Assessment Monitoring Well
- Background Monitoring Well
- Downgradient Monitoring Well
- Non-CCR Well
- Generalized Groundwater Flow Direction
- Approximate Property Line
- CCR Unit

0 400 800

1 " = 400 feet Feet

NOTE(S)

REFERENCE(S)

1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT

NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC

PROJECT

R.M. SCHAHFER GENERATING STATION
WHEATFIELD, INDIANA

TITLE

WELL LOCATION MAP
WASTE DISPOSAL AREA

CONSULTANT

wsp

YYYY-MM-DD	10/16/2023
DESIGNED	TDH
PREPARED	EMM
REVIEWED	TDH
APPROVED	MAH

PROJECT NO.	CONTROL	REV.	FIGURE
31404789	A	0	3

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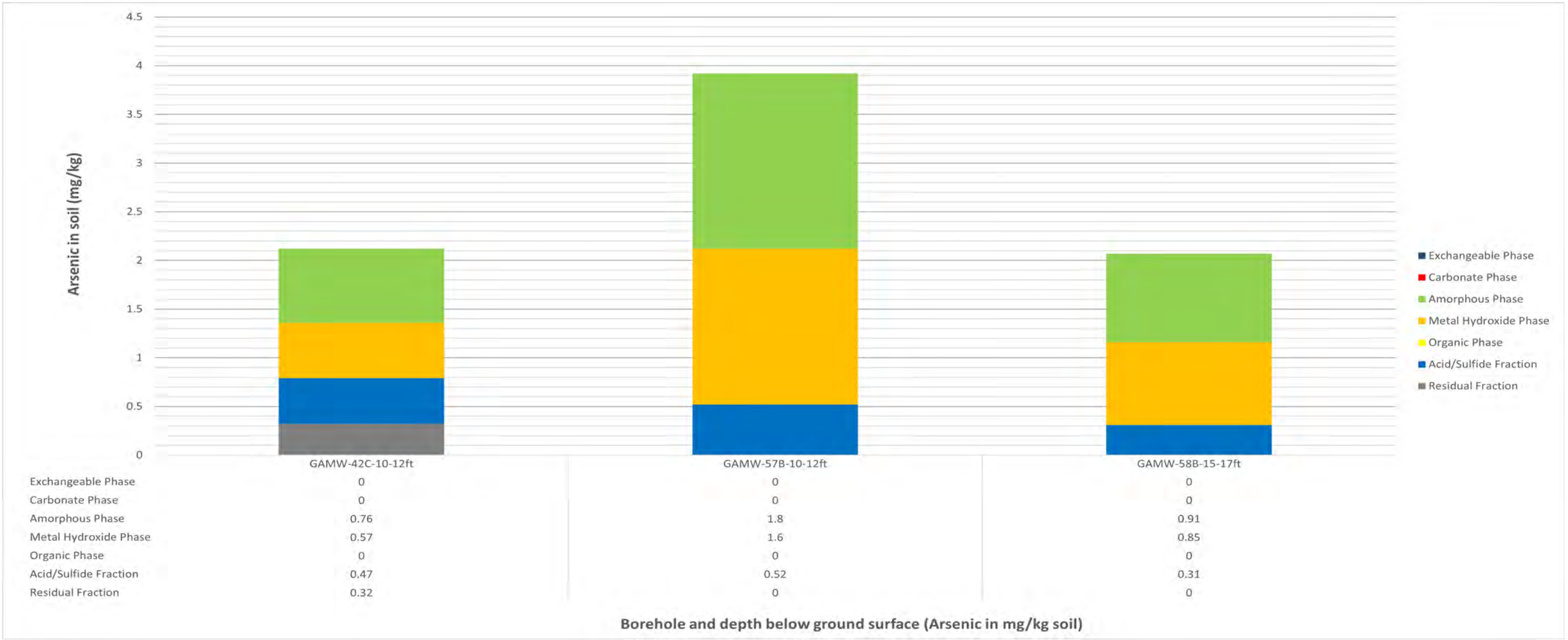
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



	GAMW-42C-10-12ft	GAMW-57B-10-12ft	GAMW-58B-15-17ft
Exchangeable Phase	0	0	0
Carbonate Phase	0	0	0
Amorphous Phase	0.76	1.8	0.91
Metal Hydroxide Phase	0.57	1.6	0.85
Organic Phase	0	0	0
Acid/Sulfide Fraction	0.47	0.52	0.31
Residual Fraction	0.32	0	0

Borehole and depth below ground surface (Arsenic in mg/kg soil)

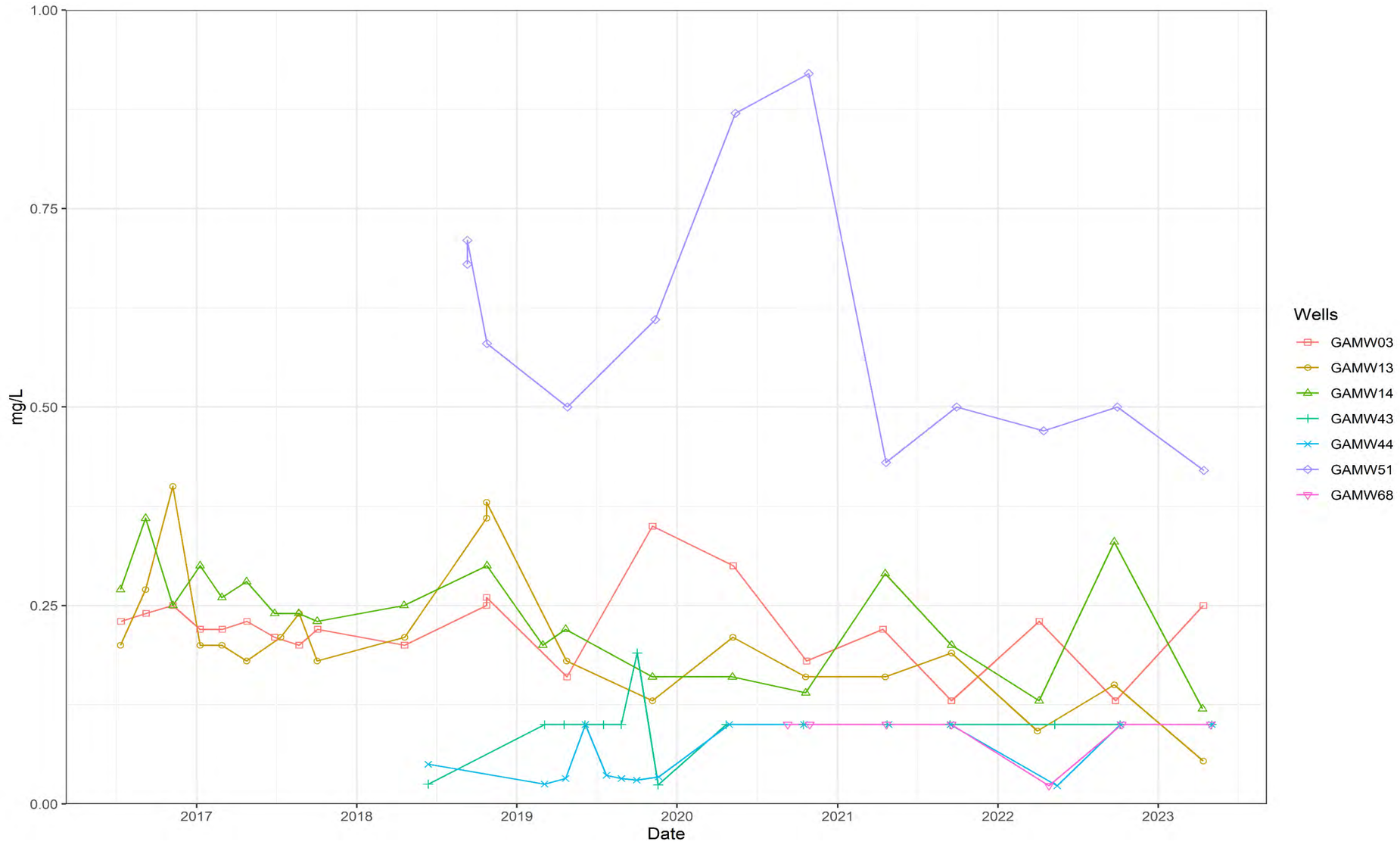
CLIENT
R.M. SCHAHFER
NIPSCO

CONSULTANT
wsp

PROJECT
WDA ALTERNATE SOURCE DEMONSTRATION

TITLE
SEQUENTIAL EXTRACTION OF ARSENIC FROM SOIL AT BORINGS

PROJECT NO.	PHASE	REV.	FIGURE
31404789.011		A	4



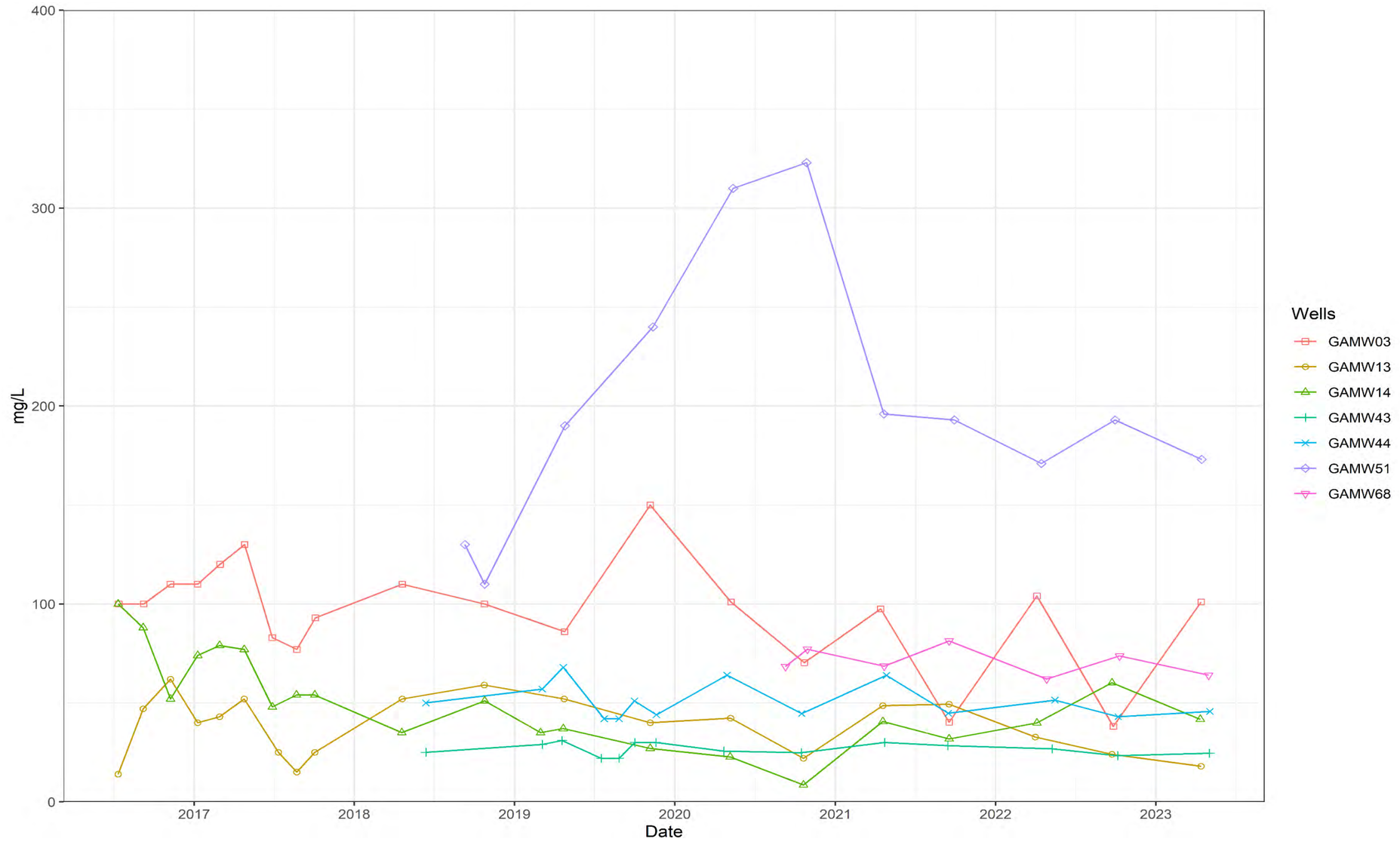
CLIENT
R.M. SCHAHFER
NIPSCO

CONSULTANT
wsp

PROJECT
WDA ALTERNATE SOURCE DEMONSTRATION

TITLE
BORON CONCENTRATIONS AT WDA MONITORING WELLS

PROJECT NO.	PHASE	REV.	FIGURE
31404789.011		A	5a



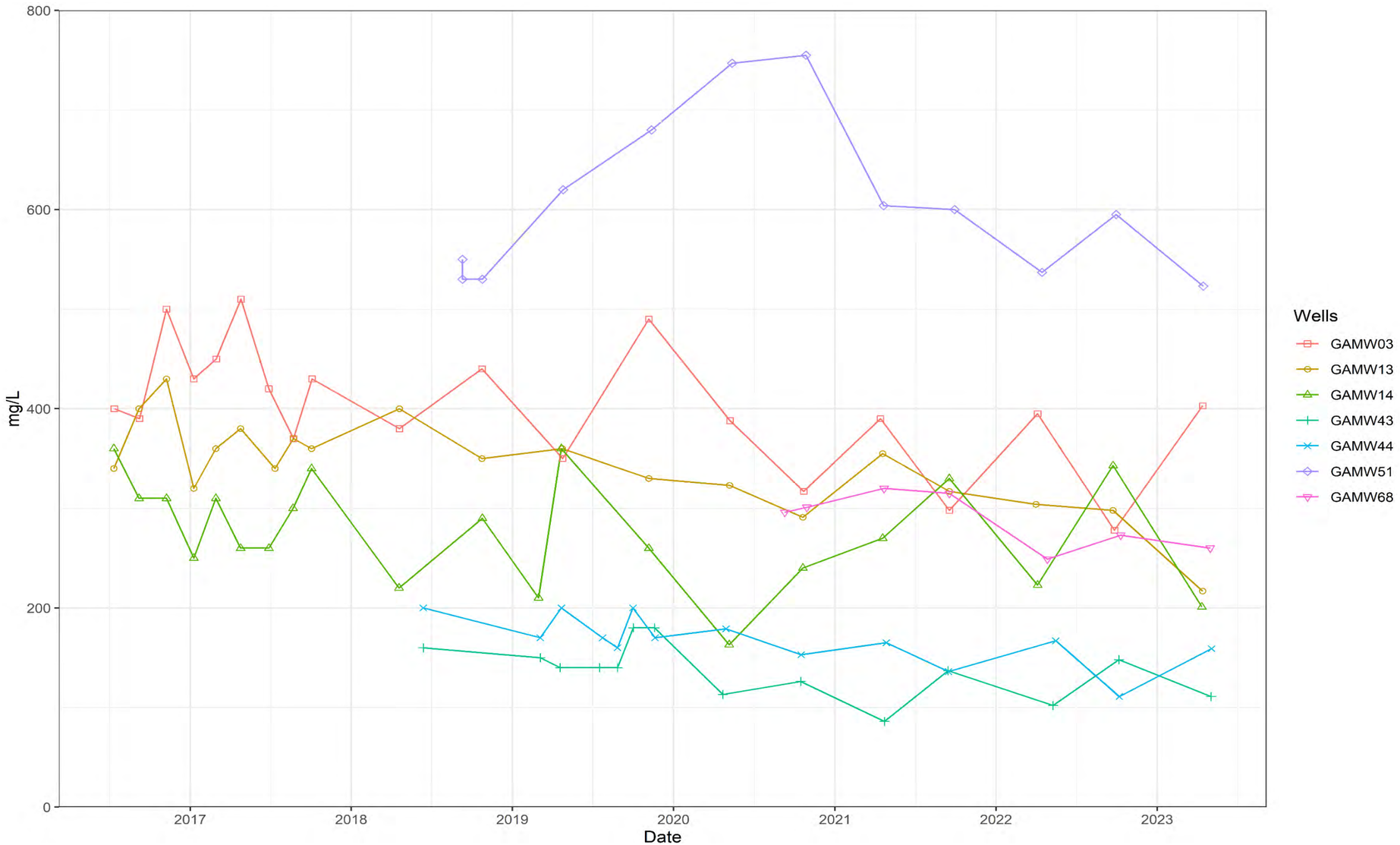
CLIENT
R.M. SCHAHFER
NIPSCO

CONSULTANT
wsp

PROJECT
WDA ALTERNATE SOURCE DEMONSTRATION

TITLE
SULFATE CONCENTRATIONS AT WDA MONITORING WELLS

PROJECT NO.	PHASE	REV.	FIGURE
31404789.011		A	5b



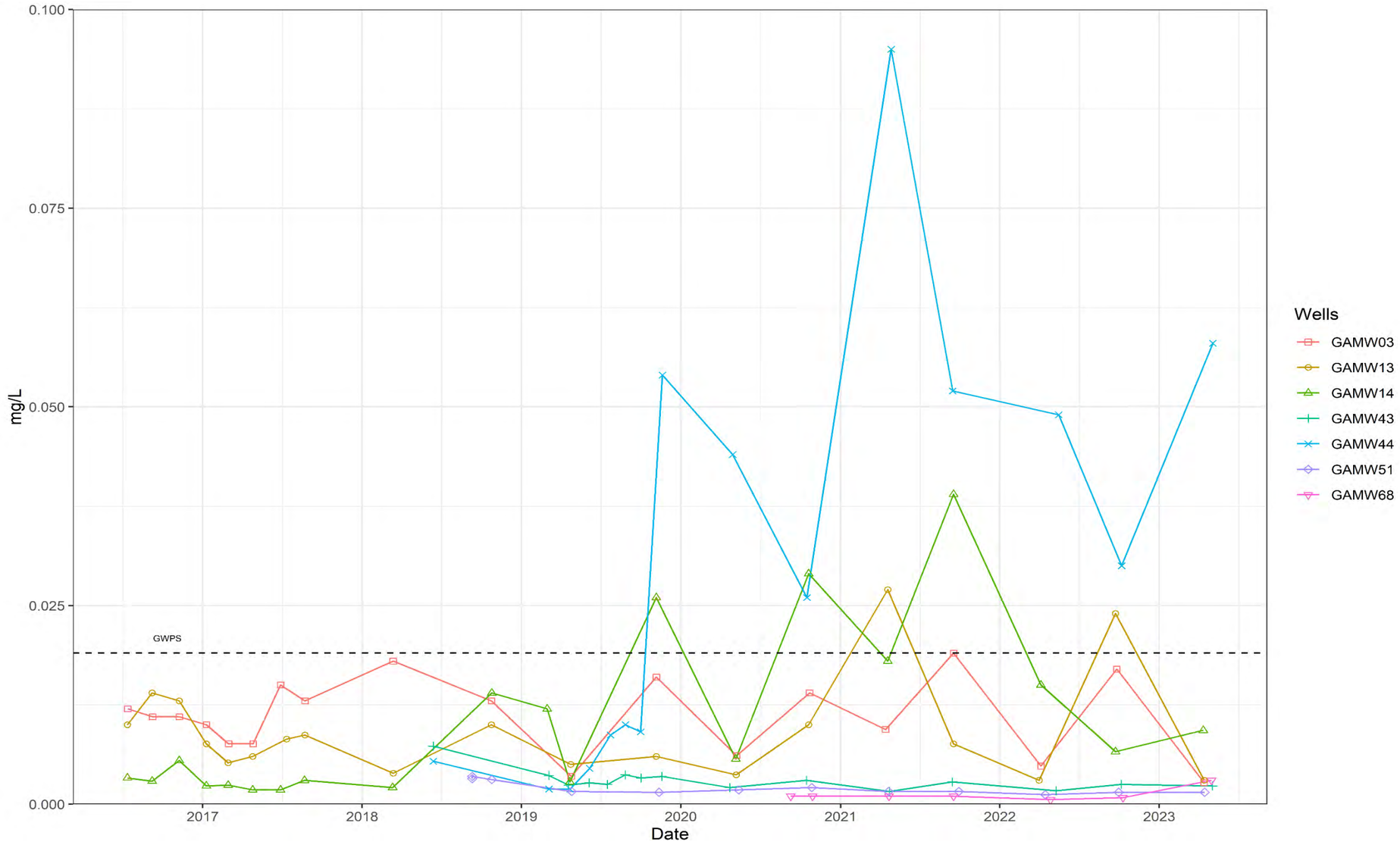
CLIENT
R.M. SCHAHFER
NIPSCO

CONSULTANT
wsp

PROJECT
WDA ALTERNATE SOURCE DEMONSTRATION

TITLE
TDS CONCENTRATIONS AT WDA MONITORING WELLS

PROJECT NO.	PHASE	REV.	FIGURE
31404789.011		A	5c



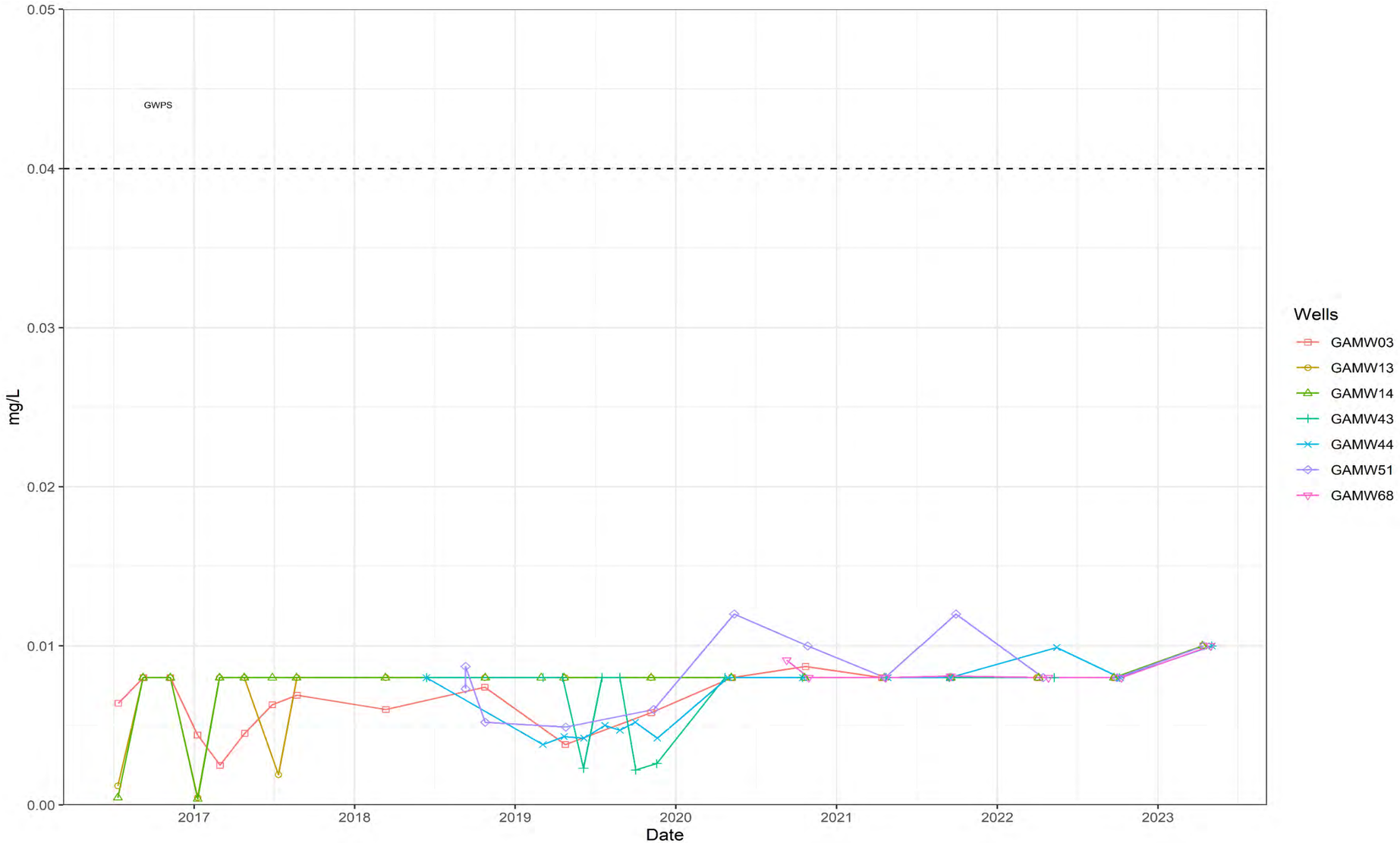
CLIENT
R.M. SCHAHFER
NIPSCO

CONSULTANT
wsp

PROJECT
WDA ALTERNATE SOURCE DEMONSTRATION

TITLE
ARSENIC CONCENTRATIONS AT WDA MONITORING WELLS

PROJECT NO.	PHASE	REV.	FIGURE
31404789.011		A	6



CLIENT
R.M. SCHAHFER
NIPSCO

CONSULTANT
wsp

PROJECT
WDA ALTERNATE SOURCE DEMONSTRATION

TITLE
LITHIUM CONCENTRATIONS AT WDA MONITORING WELLS

PROJECT NO.	PHASE	REV.	FIGURE
31404789.011		A	7

APPENDIX A

Results of Sequential Extraction Testing

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

Laboratory Job ID: 490-175740-1
Client Project/Site: R.M. Schahfer - Total & SEP Analysis

For:
Golder Associates Inc.
670 North Commercial Street
Suite 103
Manchester, New Hampshire 03101

Attn: Danielle Sylvia

Authorized for release by:
8/2/2019 1:56:29 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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QC Sample Results 31
QC Association 48
Chronicle 56
Method Summary 63
Certification Summary 64
Chain of Custody 67
Receipt Checklists 73

Sample Summary

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
490-175740-1	OW-9-10-12	Solid	06/05/19 13:00	06/11/19 08:45	
490-175740-2	OW-9-18-20	Solid	06/05/19 13:10	06/11/19 08:45	
490-175740-3	GAMW-58B-15-17ft	Solid	06/06/19 11:30	06/11/19 08:45	
490-175740-4	GAMW-42C-10-12ft	Solid	06/07/19 15:20	06/11/19 08:45	
490-175740-5	GAMW-57B-10-12ft	Solid	06/07/19 08:40	06/11/19 08:45	
490-175740-6	GAMW-42C-30-32ft	Solid	06/07/19 16:08	06/11/19 08:45	

Job ID: 490-175740-1

Laboratory: Eurofins TestAmerica, Nashville

Narrative

Job Narrative
490-175740-1

Receipt
The samples were received on 6/11/2019 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.3º C.

Metals
7 Step Sequential Extraction Procedure

These soil samples were prepared and analyzed using Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0008, "7 Step Sequential Extraction Procedure". SW-846 Method 6010B as incorporated in Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0007 was used to perform the final instrument analyses.

An aliquot of each sample was sequentially extracted using the steps listed below:

· Step 1 - Exchangeable Fraction: A 5 gram aliquot of sample was extracted with 25 mL of 1M magnesium sulfate (MgSO4), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 2 - Carbonate Fraction: The sample residue from step 1 was extracted with 25 mL of 1M sodium acetate/acetic acid (NaOAc/HOAc) at pH 5, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 3 - Non-crystalline Materials Fraction: The sample residue from step 2 was extracted with 25 mL of 0.2M ammonium oxalate (pH 3), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 4 - Metal Hydroxide Fraction: The sample residue from step 3 was extracted with 25 mL of 1M hydroxylamine hydrochloride solution in 25% v/v acetic acid, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 5 - Organic-bound Fraction: The sample residue from step 4 was extracted three times with 25 mL of 5% sodium hypochlorite (NaClO) at pH 9.5, centrifuged and filtered. The resulting leachates were combined and 5 mL were digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 6 - Acid/Sulfide Fraction: The sample residue from step 5 was extracted with 25 mL of a 3:1:2 v/v solution of HCl-HNO3-H2O, centrifuged and filtered. 5 mL of the resulting leachate was diluted to 50 mL with reagent water and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 7 - Residual Fraction: A 1.0 g aliquot of the sample residue from step 6 was digested using HF, HNO3, HCl and H3BO3. The digestate was analyzed by ICP using method 6010B. Results are reported in mg/kg on a dry weight basis.

In addition, a 1.0 g aliquot of the original sample was digested using HF, HNO3, HCl and H3BO3. The digestate was analyzed by ICP using method 6010B. Total metal results are reported in mg/kg on a dry weight basis.

Results were calculated using the following equation:

Result, µg/g or mg/Kg, dry weight = (C × V × V1 × D) / (W × S × V2)

Where:
C = Concentration from instrument readout, µg/mL
V = Final volume of digestate, mL
D = Instrument dilution factor
V1 = Total volume of leachate, mL
V2 = Volume of leachate digested, mL
W = Wet weight of sample, g
S = Percent solids/100

A method blank, laboratory control sample and laboratory control sample duplicate were prepared and analyzed with each SEP step in order to provide information about both the presence of elements of interest in the extraction solutions, and the recovery of elements of

Job ID: 490-175740-1 (Continued)

Laboratory: Eurofins TestAmerica, Nashville (Continued)

interest from the extraction solutions. Results outside of laboratory QC limits do not reflect out of control performance, but rather the effect of the extraction solution upon the analyte.

A laboratory sample duplicate was prepared and analyzed with each batch of samples in order to provide information regarding the reproducibility of the procedure.

SEP Report Notes:

The final report lists the results for each step, the result for the total digestion of the sample, and a sum of the results of steps 1 through 7 by element.

The digestates for steps 1, 2 and 5 were analyzed at a dilution due to instrument problems caused by the high solids content of the digestates. The reporting limits were adjusted accordingly.

Method(s) 6010B SEP: The serial dilution performed for the following sample associated with batch 140-32217 was outside control limits: (490-175740-A-1-AE SD ^50)

Method(s) 6010B, 6010B SEP: The following samples were diluted due to the presence of Silicon which interferes with Selenium, Thallium, Arsenic, Cobalt and Lead: GAMW-58B-15-17ft (490-175740-3), GAMW-42C-10-12ft (490-175740-4), GAMW-57B-10-12ft (490-175740-5) and GAMW-42C-30-32ft (490-175740-6). Elevated reporting limits (RLs) are provided.

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

General Chemistry
% Moisture: The samples were analyzed for percent moisture using SOP number KNOX-WC-0012 (based on Modified MCAWW 160.3 and SM2540B and on the percent moisture determinations described in methods 3540C and 3550B).

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

Definitions/Glossary

Client: Golder Associates Inc. Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Qualifiers

Metals

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Client Sample ID: OW-9-10-12
Lab Sample ID: 490-175740-1
Date Collected: 06/05/19 13:00
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 85.3

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3	U	2.3	0.61	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Aluminum	47	U	47	7.5	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Antimony	14	U	14	1.3	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Barium	**0.58**	**J**	12	0.56	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Beryllium	1.2	U	1.2	0.36	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Cadmium	1.2	U	1.2	0.075	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Chromium	2.3	U	2.3	0.33	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Cobalt	12	U	12	0.21	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Iron	23	U	23	14	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Lead	2.3	U	2.3	0.52	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Selenium	2.3	U	2.3	0.80	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Thallium	8.2	U	8.2	0.98	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Lithium	12	U	12	0.70	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4
Molybdenum	9.4	U	9.4	0.38	mg/Kg	☼	06/29/19 08:00	07/12/19 15:12	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8	U	1.8	0.46	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Aluminum	**16**	**J ***	35	5.6	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Antimony	11	U	11	0.98	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Barium	**0.62**	**J ***	8.8	0.42	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Beryllium	0.88	U *	0.88	0.056	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Cadmium	0.88	U	0.88	0.039	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Chromium	**0.28**	**J**	1.8	0.25	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Cobalt	8.8	U	8.8	0.22	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Iron	**61**	*****	18	10	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Lead	1.8	U	1.8	0.39	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Selenium	1.8	U	1.8	0.60	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Thallium	6.2	U	6.2	0.74	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Lithium	8.8	U	8.8	0.53	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3
Molybdenum	7.0	U	7.0	0.29	mg/Kg	☼	07/03/19 08:00	07/12/19 16:19	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.43**	**J**	0.59	0.15	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Aluminum	**60**		12	2.5	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Antimony	3.5	U	3.5	0.33	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Barium	**0.62**	**J B**	2.9	0.14	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Beryllium	**0.021**	**J**	0.29	0.018	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Cadmium	0.29	U *	0.29	0.013	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Chromium	**0.52**	**J**	0.59	0.082	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Cobalt	**0.27**	**J**	2.9	0.053	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Iron	**710**		5.9	3.4	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Lead	0.59	U *	0.59	0.13	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Selenium	**0.22**	**J**	0.59	0.20	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Thallium	2.1	U	2.1	0.25	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Lithium	2.9	U	2.9	0.18	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1
Molybdenum	2.3	U	2.3	0.096	mg/Kg	☼	07/09/19 08:00	07/29/19 11:37	1

Client Sample ID: OW-9-10-12
Date Collected: 06/05/19 13:00
Date Received: 06/11/19 08:45

Lab Sample ID: 490-175740-1
Matrix: Solid
Percent Solids: 85.3

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.94**	**B**	0.59	0.26	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Aluminum	**280**		12	1.9	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Antimony	3.5	U	3.5	0.53	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Barium	**5.3**		2.9	0.14	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Beryllium	**0.024**	**J**	0.29	0.019	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Cadmium	**0.090**	**J**	0.29	0.013	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Chromium	**0.94**		0.59	0.082	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Cobalt	**0.87**	**J**	2.9	0.062	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Iron	**1700**		5.9	3.4	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Lead	**1.7**		0.59	0.13	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Selenium	**0.60**	**B ***	0.59	0.55	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Thallium	2.1	U *	2.1	0.34	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Lithium	**0.81**	**J**	2.9	0.18	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1
Molybdenum	2.3	U	2.3	0.096	mg/Kg	☼	07/10/19 08:00	07/29/19 12:44	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.8	U	8.8	2.2	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Aluminum	**56**	**J B ***	180	28	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Antimony	53	U	53	4.9	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Barium	44	U *	44	2.1	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Beryllium	4.4	U *	4.4	0.37	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Cadmium	4.4	U	4.4	0.19	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Chromium	**1.5**	**J**	8.8	1.2	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Cobalt	44	U *	44	0.70	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Iron	88	U *	88	52	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Lead	8.8	U *	8.8	1.9	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Selenium	8.8	U	8.8	3.0	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Thallium	31	U *	31	4.1	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Lithium	44	U	44	2.6	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5
Molybdenum	35	U	35	1.5	mg/Kg	☼	07/12/19 08:00	07/29/19 13:51	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.56**	**J**	0.59	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Aluminum	**840**		12	1.9	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Antimony	3.5	U	3.5	0.33	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Barium	**2.2**	**J**	2.9	0.14	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Beryllium	**0.036**	**J**	0.29	0.014	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Chromium	**2.1**		0.59	0.082	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Cobalt	**0.66**	**J**	2.9	0.054	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Iron	**2100**		5.9	3.4	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Lead	**0.67**		0.59	0.13	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Selenium	0.59	U	0.59	0.20	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Thallium	2.1	U	2.1	0.25	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Lithium	**1.8**	**J**	2.9	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1
Molybdenum	2.3	U	2.3	0.12	mg/Kg	☼	07/12/19 08:00	07/29/19 15:10	1

Client Sample ID: OW-9-10-12 **Lab Sample ID: 490-175740-1**
Date Collected: 06/05/19 13:00 **Matrix: Solid**
Date Received: 06/11/19 08:45 **Percent Solids: 85.3**

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.39	J	0.59	0.15	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Aluminum	23000		120	19	mg/Kg	☼	07/15/19 08:00	07/30/19 13:11	10
Antimony	3.5	U	3.5	0.16	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Barium	350		29	1.4	mg/Kg	☼	07/15/19 08:00	07/30/19 13:11	10
Beryllium	0.39		0.29	0.0088	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Chromium	7.3		0.59	0.082	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Cobalt	0.69	J	2.9	0.18	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Iron	2400		5.9	4.8	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Lead	5.3		0.59	0.13	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Selenium	0.59	U	0.59	0.20	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Thallium	0.62	J	2.1	0.21	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Lithium	3.4		2.9	0.18	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1
Molybdenum	2.3	U	2.3	0.096	mg/Kg	☼	07/15/19 08:00	07/30/19 12:19	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	24000		10	1.6	mg/Kg			08/01/19 13:44	1
Antimony	3.0	U	3.0	0.14	mg/Kg			08/01/19 13:44	1
Arsenic	2.3		0.50	0.13	mg/Kg			08/01/19 13:44	1
Barium	360		2.5	0.12	mg/Kg			08/01/19 13:44	1
Beryllium	0.47		0.25	0.0075	mg/Kg			08/01/19 13:44	1
Cadmium	0.090	J	0.25	0.011	mg/Kg			08/01/19 13:44	1
Chromium	13		0.50	0.070	mg/Kg			08/01/19 13:44	1
Cobalt	2.5		2.5	0.023	mg/Kg			08/01/19 13:44	1
Iron	7100		5.0	4.1	mg/Kg			08/01/19 13:44	1
Lead	7.7		0.50	0.11	mg/Kg			08/01/19 13:44	1
Selenium	0.82		0.50	0.17	mg/Kg			08/01/19 13:44	1
Thallium	0.62	J	1.8	0.18	mg/Kg			08/01/19 13:44	1
Li	6.0		2.5	0.15	mg/Kg			08/01/19 13:44	1
Mo	2.0	U	2.0	0.082	mg/Kg			08/01/19 13:44	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	29000		120	19	mg/Kg	☼	06/17/19 08:00	07/30/19 14:54	10
Antimony	3.5	U	3.5	0.16	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Arsenic	1.9		0.59	0.15	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Barium	390		29	1.4	mg/Kg	☼	06/17/19 08:00	07/30/19 14:54	10
Beryllium	0.41		0.29	0.0088	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Chromium	11		0.59	0.082	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Cobalt	2.5	J	2.9	0.18	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Iron	7500		5.9	4.8	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Lead	7.4		0.59	0.13	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Lithium	6.8		2.9	0.18	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Molybdenum	0.22	J	2.3	0.096	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Selenium	0.59	U	0.59	0.20	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1
Thallium	0.58	J	2.1	0.21	mg/Kg	☼	06/17/19 08:00	07/30/19 14:02	1

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: OW-9-10-12
Lab Sample ID: 490-175740-1
Date Collected: 06/05/19 13:00
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 85.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2200**	**F1**	11	5.0	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Antimony	17	U	17	0.46	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Arsenic	**1.7**	**J**	2.3	0.46	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Barium	**13**		0.57	0.13	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Beryllium	**0.12**	**J**	0.23	0.032	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Boron	**7.4**	**B**	2.3	0.22	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Cadmium	**0.11**	**J**	0.23	0.034	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Chromium	**4.4**		0.57	0.23	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Cobalt	**1.8**		0.57	0.057	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Iron	**4400**	**B**	11	4.0	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Lead	**3.1**		1.1	0.27	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Lithium	**3.6**	**J**	5.7	0.57	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Molybdenum	**0.24**	**J B**	1.1	0.15	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Selenium	4.6	U	4.6	0.46	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1
Thallium	6.9	U	6.9	0.34	mg/Kg	☼	06/18/19 10:02	06/20/19 22:08	1

Method: 7470A - SEP Mercury (CVAA) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.12	U	0.12	0.047	mg/Kg	☼	06/17/19 08:00	06/18/19 13:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023	U	0.023	0.0094	mg/Kg	☼	06/19/19 13:22	06/19/19 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**14.7**		0.1	0.1	%			06/17/19 18:17	1

Client Sample ID: OW-9-18-20
Lab Sample ID: 490-175740-2
Date Collected: 06/05/19 13:10
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 85.9

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3	U	2.3	0.61	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Aluminum	47	U	47	7.5	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Antimony	14	U	14	1.3	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Barium	12	U	12	0.56	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Beryllium	1.2	U	1.2	0.36	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Cadmium	1.2	U	1.2	0.075	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Chromium	2.3	U	2.3	0.33	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Cobalt	12	U	12	0.21	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Iron	23	U	23	14	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Lead	2.3	U	2.3	0.51	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Selenium	2.3	U	2.3	0.79	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Thallium	8.2	U	8.2	0.98	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Lithium	12	U	12	0.70	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4
Molybdenum	9.3	U	9.3	0.38	mg/Kg	☼	06/29/19 08:00	07/12/19 15:22	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7	U	1.7	0.45	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Aluminum	35	U *	35	5.6	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Antimony	10	U	10	0.98	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Barium	8.7	U *	8.7	0.42	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Beryllium	0.87	U *	0.87	0.056	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Cadmium	0.87	U	0.87	0.038	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Chromium	1.7	U	1.7	0.24	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Cobalt	8.7	U	8.7	0.22	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Iron	**29**	*	17	10	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Lead	1.7	U	1.7	0.38	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Selenium	1.7	U	1.7	0.59	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Thallium	6.1	U	6.1	0.73	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Lithium	8.7	U	8.7	0.52	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3
Molybdenum	7.0	U	7.0	0.29	mg/Kg	☼	07/03/19 08:00	07/12/19 16:30	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.17**	**J**	0.58	0.15	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Aluminum	**15**		12	2.4	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Antimony	3.5	U	3.5	0.33	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Barium	**0.24**	**J B**	2.9	0.14	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Beryllium	0.29	U	0.29	0.017	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Cadmium	0.29	U *	0.29	0.013	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Chromium	**0.16**	**J**	0.58	0.082	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Cobalt	**0.19**	**J**	2.9	0.052	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Iron	**150**		5.8	3.4	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Lead	0.58	U *	0.58	0.13	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Selenium	0.58	U	0.58	0.20	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Thallium	2.0	U	2.0	0.24	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Lithium	2.9	U	2.9	0.17	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1
Molybdenum	2.3	U	2.3	0.095	mg/Kg	☼	07/09/19 08:00	07/29/19 11:48	1

Client Sample ID: OW-9-18-20
Lab Sample ID: 490-175740-2
Date Collected: 06/05/19 13:10
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 85.9

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.73**	**B**	0.58	0.26	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Aluminum	**160**		12	1.9	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Antimony	3.5	U	3.5	0.52	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Barium	**1.6**	**J**	2.9	0.14	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Beryllium	**0.020**	**J**	0.29	0.019	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Cadmium	**0.083**	**J**	0.29	0.013	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Chromium	**0.57**	**J**	0.58	0.082	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Cobalt	**1.2**	**J**	2.9	0.062	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Iron	**1100**		5.8	3.4	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Lead	**1.2**		0.58	0.13	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Selenium	**0.75**	**B ***	0.58	0.55	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Thallium	2.0	U *	2.0	0.34	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Lithium	**0.55**	**J**	2.9	0.17	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1
Molybdenum	2.3	U	2.3	0.095	mg/Kg	☼	07/10/19 08:00	07/29/19 12:55	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.7	U	8.7	2.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Aluminum	**50**	**J B ***	170	27	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Antimony	52	U	52	4.9	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Barium	44	U *	44	2.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Beryllium	4.4	U *	4.4	0.37	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Cadmium	4.4	U	4.4	0.19	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Chromium	**1.3**	**J**	8.7	1.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Cobalt	44	U *	44	0.70	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Iron	87	U *	87	51	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Lead	8.7	U *	8.7	1.9	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Selenium	8.7	U	8.7	3.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Thallium	31	U *	31	4.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Lithium	44	U	44	2.6	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5
Molybdenum	35	U	35	1.5	mg/Kg	☼	07/12/19 08:00	07/29/19 14:02	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.54**	**J**	0.58	0.17	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Aluminum	**520**		12	1.9	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Antimony	3.5	U	3.5	0.33	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Barium	**1.2**	**J**	2.9	0.14	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Beryllium	**0.027**	**J**	0.29	0.014	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Chromium	**1.7**		0.58	0.082	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Cobalt	**0.68**	**J**	2.9	0.054	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Iron	**1500**		5.8	3.4	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Lead	**0.35**	**J**	0.58	0.13	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Selenium	0.58	U	0.58	0.20	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Thallium	2.0	U	2.0	0.24	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Lithium	**1.2**	**J**	2.9	0.17	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1
Molybdenum	2.3	U	2.3	0.12	mg/Kg	☼	07/12/19 08:00	07/29/19 15:21	1

Client Sample ID: OW-9-18-20
Lab Sample ID: 490-175740-2
Date Collected: 06/05/19 13:10
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 85.9

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.34	J	0.58	0.15	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Aluminum	15000		120	19	mg/Kg	☼	07/15/19 08:00	07/30/19 13:21	10
Antimony	3.5	U	3.5	0.16	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Barium	220		29	1.4	mg/Kg	☼	07/15/19 08:00	07/30/19 13:21	10
Beryllium	0.24	J	0.29	0.0087	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Chromium	5.2		0.58	0.082	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Cobalt	0.69	J	2.9	0.17	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Iron	2000		5.8	4.8	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Lead	3.2		0.58	0.13	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Selenium	0.58	U	0.58	0.20	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Thallium	0.56	J	2.0	0.21	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Lithium	2.1	J	2.9	0.17	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1
Molybdenum	2.3	U	2.3	0.095	mg/Kg	☼	07/15/19 08:00	07/30/19 12:44	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000		10	1.6	mg/Kg			08/01/19 13:44	1
Antimony	3.0	U	3.0	0.14	mg/Kg			08/01/19 13:44	1
Arsenic	1.8		0.50	0.13	mg/Kg			08/01/19 13:44	1
Barium	220		2.5	0.12	mg/Kg			08/01/19 13:44	1
Beryllium	0.28		0.25	0.0075	mg/Kg			08/01/19 13:44	1
Cadmium	0.083	J	0.25	0.011	mg/Kg			08/01/19 13:44	1
Chromium	8.8		0.50	0.070	mg/Kg			08/01/19 13:44	1
Cobalt	2.8		2.5	0.023	mg/Kg			08/01/19 13:44	1
Iron	4700		5.0	4.1	mg/Kg			08/01/19 13:44	1
Lead	4.8		0.50	0.11	mg/Kg			08/01/19 13:44	1
Selenium	0.75		0.50	0.17	mg/Kg			08/01/19 13:44	1
Thallium	0.56	J	1.8	0.18	mg/Kg			08/01/19 13:44	1
Li	3.8		2.5	0.15	mg/Kg			08/01/19 13:44	1
Mo	2.0	U	2.0	0.082	mg/Kg			08/01/19 13:44	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	19000		120	19	mg/Kg	☼	06/17/19 08:00	07/30/19 15:04	10
Antimony	3.5	U	3.5	0.16	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Arsenic	3.0		0.58	0.15	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Barium	210		29	1.4	mg/Kg	☼	06/17/19 08:00	07/30/19 15:04	10
Beryllium	0.28	J	0.29	0.0087	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Chromium	8.3		0.58	0.082	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Cobalt	3.2		2.9	0.17	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Iron	5500		5.8	4.8	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Lead	5.6		0.58	0.13	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Lithium	5.4		2.9	0.17	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Molybdenum	0.15	J	2.3	0.095	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Selenium	0.58	U	0.58	0.20	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1
Thallium	0.47	J	2.0	0.21	mg/Kg	☼	06/17/19 08:00	07/30/19 14:13	1

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: OW-9-18-20
Lab Sample ID: 490-175740-2
Date Collected: 06/05/19 13:10
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 85.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1100**		11	5.0	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Antimony	17	U	17	0.46	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Arsenic	**0.69**	**J**	2.3	0.46	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Barium	**4.1**		0.57	0.13	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Beryllium	**0.064**	**J**	0.23	0.032	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Boron	**3.6**	**B**	2.3	0.22	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Cadmium	**0.072**	**J**	0.23	0.034	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Chromium	**2.5**		0.57	0.23	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Cobalt	**2.2**		0.57	0.057	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Iron	**2600**	**B**	11	4.0	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Lead	**1.8**		1.1	0.27	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Lithium	**2.2**	**J**	5.7	0.57	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Molybdenum	**0.17**	**J B**	1.1	0.15	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Selenium	4.6	U	4.6	0.46	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1
Thallium	6.8	U	6.8	0.34	mg/Kg	☼	06/18/19 10:02	06/20/19 22:27	1

Method: 7470A - SEP Mercury (CVAA) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.12	U	0.12	0.047	mg/Kg	☼	06/17/19 08:00	06/18/19 13:28	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024	U	0.024	0.0096	mg/Kg	☼	06/19/19 13:22	06/19/19 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**14.1**		0.1	0.1	%			06/17/19 18:17	1

Client Sample ID: GAMW-58B-15-17ft
Lab Sample ID: 490-175740-3
Date Collected: 06/06/19 11:30
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 86.9

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3	U	2.3	0.60	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Aluminum	**11**	**J**	46	7.4	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Antimony	14	U	14	1.3	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Barium	**0.84**	**J**	12	0.55	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Beryllium	1.2	U	1.2	0.35	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Cadmium	1.2	U	1.2	0.074	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Chromium	2.3	U	2.3	0.32	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Cobalt	12	U	12	0.21	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Iron	23	U	23	13	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Lead	2.3	U	2.3	0.51	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Selenium	2.3	U	2.3	0.78	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Thallium	8.1	U	8.1	0.97	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Lithium	12	U	12	0.69	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4
Molybdenum	9.2	U	9.2	0.38	mg/Kg	☼	06/29/19 08:00	07/12/19 15:28	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7	U	1.7	0.45	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Aluminum	**50**	*****	35	5.5	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Antimony	10	U	10	0.97	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Barium	**1.1**	**J ***	8.6	0.41	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Beryllium	0.86	U *	0.86	0.055	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Cadmium	0.86	U	0.86	0.038	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Chromium	**0.28**	**J**	1.7	0.24	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Cobalt	8.6	U	8.6	0.22	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Iron	**19**	*****	17	10	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Lead	1.7	U	1.7	0.38	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Selenium	**0.61**	**J**	1.7	0.59	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Thallium	6.0	U	6.0	0.73	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Lithium	8.6	U	8.6	0.52	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3
Molybdenum	6.9	U	6.9	0.28	mg/Kg	☼	07/03/19 08:00	07/12/19 16:51	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.91**		0.58	0.15	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Aluminum	**240**		12	2.4	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Antimony	3.5	U	3.5	0.32	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Barium	**1.5**	**J B**	2.9	0.14	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Beryllium	0.29	U	0.29	0.017	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Cadmium	**0.070**	**J B ***	0.29	0.013	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Chromium	**0.62**		0.58	0.081	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Cobalt	**0.41**	**J**	2.9	0.052	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Iron	**350**		5.8	3.3	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Lead	**0.69**	*****	0.58	0.13	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Selenium	0.58	U	0.58	0.20	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Thallium	2.0	U	2.0	0.24	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Lithium	2.9	U	2.9	0.17	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1
Molybdenum	**0.27**	**J**	2.3	0.094	mg/Kg	☼	07/09/19 08:00	07/29/19 11:53	1

Client Sample ID: GAMW-58B-15-17ft
Lab Sample ID: 490-175740-3
Date Collected: 06/06/19 11:30
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 86.9

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.85**	**B**	0.58	0.25	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Aluminum	**930**		12	1.8	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Antimony	3.5	U	3.5	0.52	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Barium	**1.7**	**J**	2.9	0.14	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Beryllium	**0.037**	**J**	0.29	0.018	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Cadmium	**0.024**	**J**	0.29	0.013	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Chromium	**1.6**		0.58	0.081	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Cobalt	**0.84**	**J**	2.9	0.061	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Iron	**990**		5.8	3.3	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Lead	**0.77**		0.58	0.13	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Selenium	**0.78**	**B ***	0.58	0.54	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Thallium	2.0	U *	2.0	0.33	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Lithium	**0.85**	**J**	2.9	0.17	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1
Molybdenum	**0.11**	**J**	2.3	0.094	mg/Kg	☼	07/10/19 08:00	07/29/19 13:00	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.6	U	8.6	2.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Aluminum	**79**	**J B ***	170	27	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Antimony	52	U	52	4.8	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Barium	43	U *	43	2.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Beryllium	4.3	U *	4.3	0.36	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Cadmium	4.3	U	4.3	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Chromium	**1.3**	**J**	8.6	1.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Cobalt	43	U *	43	0.69	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Iron	86	U *	86	51	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Lead	8.6	U *	8.6	1.9	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Selenium	8.6	U	8.6	3.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Thallium	30	U *	30	4.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Lithium	43	U	43	2.5	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5
Molybdenum	35	U	35	1.4	mg/Kg	☼	07/12/19 08:00	07/29/19 14:07	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.31**	**J**	0.58	0.17	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Aluminum	**520**		12	1.8	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Antimony	3.5	U	3.5	0.32	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Barium	**1.3**	**J**	2.9	0.14	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Beryllium	**0.023**	**J**	0.29	0.014	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Chromium	**0.97**		0.58	0.081	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Cobalt	**0.23**	**J**	2.9	0.053	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Iron	**750**		5.8	3.3	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Lead	**0.24**	**J**	0.58	0.13	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Selenium	0.58	U	0.58	0.20	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Thallium	2.0	U	2.0	0.24	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Lithium	**0.63**	**J**	2.9	0.17	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1
Molybdenum	2.3	U	2.3	0.11	mg/Kg	☼	07/12/19 08:00	07/29/19 15:26	1

Client Sample ID: GAMW-58B-15-17ft **Lab Sample ID: 490-175740-3**
Date Collected: 06/06/19 11:30 **Matrix: Solid**
Date Received: 06/11/19 08:45 **Percent Solids: 86.9**

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2	U	1.2	0.30	mg/Kg	☼	07/15/19 08:00	07/30/19 15:45	2
Aluminum	**14000**		120	18	mg/Kg	☼	07/15/19 08:00	07/30/19 13:41	10
Antimony	3.5	U	3.5	0.16	mg/Kg	☼	07/15/19 08:00	07/30/19 12:50	1
Barium	**220**		29	1.4	mg/Kg	☼	07/15/19 08:00	07/30/19 13:41	10
Beryllium	**0.21**	**J**	0.29	0.0086	mg/Kg	☼	07/15/19 08:00	07/30/19 12:50	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	07/15/19 08:00	07/30/19 12:50	1
Chromium	**3.2**		0.58	0.081	mg/Kg	☼	07/15/19 08:00	07/30/19 12:50	1
Cobalt	**0.47**	**J**	5.8	0.35	mg/Kg	☼	07/15/19 08:00	07/30/19 15:45	2
Iron	**970**		5.8	4.7	mg/Kg	☼	07/15/19 08:00	07/30/19 12:50	1
Lead	**3.6**		1.2	0.25	mg/Kg	☼	07/15/19 08:00	07/30/19 15:45	2
Selenium	1.2	U	1.2	0.39	mg/Kg	☼	07/15/19 08:00	07/30/19 15:45	2
Thallium	4.0	U	4.0	0.41	mg/Kg	☼	07/15/19 08:00	07/30/19 15:45	2
Lithium	**1.9**	**J**	2.9	0.17	mg/Kg	☼	07/15/19 08:00	07/30/19 12:50	1
Molybdenum	2.3	U	2.3	0.094	mg/Kg	☼	07/15/19 08:00	07/30/19 12:50	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16000**		10	1.6	mg/Kg			08/01/19 13:44	1
Antimony	3.0	U	3.0	0.14	mg/Kg			08/01/19 13:44	1
Arsenic	**2.1**		0.50	0.13	mg/Kg			08/01/19 13:44	1
Barium	**220**		2.5	0.12	mg/Kg			08/01/19 13:44	1
Beryllium	**0.27**		0.25	0.0075	mg/Kg			08/01/19 13:44	1
Cadmium	**0.094**	**J**	0.25	0.011	mg/Kg			08/01/19 13:44	1
Chromium	**8.0**		0.50	0.070	mg/Kg			08/01/19 13:44	1
Cobalt	**2.0**	**J**	2.5	0.023	mg/Kg			08/01/19 13:44	1
Iron	**3100**		5.0	4.1	mg/Kg			08/01/19 13:44	1
Lead	**5.3**		0.50	0.11	mg/Kg			08/01/19 13:44	1
Selenium	**1.4**		0.50	0.17	mg/Kg			08/01/19 13:44	1
Thallium	1.8	U	1.8	0.18	mg/Kg			08/01/19 13:44	1
Li	**3.4**		2.5	0.15	mg/Kg			08/01/19 13:44	1
Mo	**0.38**	**J**	2.0	0.082	mg/Kg			08/01/19 13:44	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21000**		120	18	mg/Kg	☼	06/17/19 08:00	07/30/19 15:09	10
Antimony	3.5	U	3.5	0.16	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Arsenic	**2.2**		0.58	0.15	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Barium	**280**		29	1.4	mg/Kg	☼	06/17/19 08:00	07/30/19 15:09	10
Beryllium	**0.32**		0.29	0.0086	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Cadmium	0.29	U	0.29	0.013	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Chromium	**8.7**		0.58	0.081	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Cobalt	**2.3**	**J**	2.9	0.17	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Iron	**3900**		5.8	4.7	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Lead	**5.5**		0.58	0.13	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Lithium	**4.2**		2.9	0.17	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Molybdenum	**0.46**	**J**	2.3	0.094	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Selenium	0.58	U	0.58	0.20	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1
Thallium	**0.36**	**J**	2.0	0.21	mg/Kg	☼	06/17/19 08:00	07/30/19 14:18	1

Client Sample Results

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: GAMW-58B-15-17ft
Lab Sample ID: 490-175740-3
Date Collected: 06/06/19 11:30
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 86.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2500**		11	4.9	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Antimony	17	U	17	0.45	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Arsenic	**1.5**	**J**	2.2	0.45	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Barium	**8.4**		0.56	0.12	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Beryllium	**0.079**	**J**	0.22	0.031	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Boron	**2.0**	**J B**	2.2	0.21	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Cadmium	**0.045**	**J**	0.22	0.034	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Chromium	**4.7**		0.56	0.22	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Cobalt	**1.0**		0.56	0.056	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Iron	**2200**	**B**	11	3.9	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Lead	**2.0**		1.1	0.27	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Lithium	**1.8**	**J**	5.6	0.56	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Molybdenum	**0.67**	**J B**	1.1	0.15	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Selenium	4.5	U	4.5	0.45	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1
Thallium	6.7	U	6.7	0.34	mg/Kg	☼	06/18/19 10:02	06/20/19 22:43	1

Method: 7470A - SEP Mercury (CVAA) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.12	U	0.12	0.046	mg/Kg	☼	06/17/19 08:00	06/18/19 13:36	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023	U	0.023	0.0094	mg/Kg	☼	06/19/19 13:22	06/19/19 15:18	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**13.1**		0.1	0.1	%			06/17/19 18:17	1

Client Sample ID: GAMW-42C-10-12ft
Lab Sample ID: 490-175740-4
Date Collected: 06/07/19 15:20
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 84.6

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4	U	2.4	0.61	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Aluminum	47	U	47	7.6	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Antimony	14	U	14	1.3	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Barium	12	U	12	0.57	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Beryllium	1.2	U	1.2	0.36	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Cadmium	1.2	U	1.2	0.076	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Chromium	2.4	U	2.4	0.33	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Cobalt	**1.8**	**J**	12	0.21	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Iron	24	U	24	14	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Lead	2.4	U	2.4	0.52	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Selenium	2.4	U	2.4	0.80	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Thallium	8.3	U	8.3	0.99	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Lithium	12	U	12	0.71	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4
Molybdenum	9.5	U	9.5	0.39	mg/Kg	☼	06/29/19 08:00	07/12/19 15:48	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8	U	1.8	0.46	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Aluminum	**7.3**	**J ***	35	5.7	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Antimony	11	U	11	0.99	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Barium	8.9	U *	8.9	0.43	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Beryllium	0.89	U *	0.89	0.057	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Cadmium	0.89	U	0.89	0.039	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Chromium	1.8	U	1.8	0.25	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Cobalt	8.9	U	8.9	0.22	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Iron	**19**	*****	18	10	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Lead	**1.0**	**J**	1.8	0.39	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Selenium	**0.71**	**J**	1.8	0.60	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Thallium	6.2	U	6.2	0.74	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Lithium	8.9	U	8.9	0.53	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3
Molybdenum	7.1	U	7.1	0.29	mg/Kg	☼	07/03/19 08:00	07/12/19 16:56	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.76**		0.59	0.15	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Aluminum	**35**		12	2.5	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Antimony	3.5	U	3.5	0.33	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Barium	**3.9**	**B**	3.0	0.14	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Beryllium	0.30	U	0.30	0.018	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Cadmium	**0.074**	**J B ***	0.30	0.013	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Chromium	**0.36**	**J**	0.59	0.083	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Cobalt	**0.27**	**J**	3.0	0.053	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Iron	**78**		5.9	3.4	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Lead	**0.78**	*****	0.59	0.13	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Selenium	0.59	U	0.59	0.20	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Thallium	2.1	U	2.1	0.25	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Lithium	3.0	U	3.0	0.18	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1
Molybdenum	**0.25**	**J**	2.4	0.097	mg/Kg	☼	07/09/19 08:00	07/29/19 11:58	1

Client Sample ID: GAMW-42C-10-12ft
Lab Sample ID: 490-175740-4
Date Collected: 06/07/19 15:20
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 84.6

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.57**	**J B**	0.59	0.26	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Aluminum	**670**		12	1.9	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Antimony	3.5	U	3.5	0.53	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Barium	**1.8**	**J**	3.0	0.14	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Beryllium	**0.027**	**J**	0.30	0.019	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Cadmium	**0.022**	**J**	0.30	0.013	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Chromium	**1.5**		0.59	0.083	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Cobalt	**0.94**	**J**	3.0	0.063	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Iron	**900**		5.9	3.4	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Lead	**0.51**	**J**	0.59	0.13	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Selenium	**0.67**	**B ***	0.59	0.56	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Thallium	2.1	U *	2.1	0.34	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Lithium	**1.0**	**J**	3.0	0.18	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1
Molybdenum	2.4	U	2.4	0.097	mg/Kg	☼	07/10/19 08:00	07/29/19 13:05	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9	U	8.9	2.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Aluminum	**73**	**J B ***	180	28	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Antimony	53	U	53	5.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Barium	44	U *	44	2.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Beryllium	4.4	U *	4.4	0.37	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Cadmium	4.4	U	4.4	0.19	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Chromium	**1.6**	**J**	8.9	1.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Cobalt	44	U *	44	0.71	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Iron	89	U *	89	52	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Lead	8.9	U *	8.9	2.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Selenium	8.9	U	8.9	3.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Thallium	31	U *	31	4.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Lithium	44	U	44	2.6	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5
Molybdenum	35	U	35	1.5	mg/Kg	☼	07/12/19 08:00	07/29/19 14:29	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.47**	**J**	0.59	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Aluminum	**540**		12	1.9	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Antimony	3.5	U	3.5	0.33	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Barium	**1.2**	**J**	3.0	0.14	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Beryllium	**0.024**	**J**	0.30	0.014	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Chromium	**1.0**		0.59	0.083	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Cobalt	**0.50**	**J**	3.0	0.054	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Iron	**850**		5.9	3.4	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Lead	**0.19**	**J**	0.59	0.13	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Selenium	0.59	U	0.59	0.20	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Thallium	2.1	U	2.1	0.25	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Lithium	**0.76**	**J**	3.0	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1
Molybdenum	2.4	U	2.4	0.12	mg/Kg	☼	07/12/19 08:00	07/29/19 15:31	1

Client Sample ID: GAMW-42C-10-12ft
Date Collected: 06/07/19 15:20
Date Received: 06/11/19 08:45

Lab Sample ID: 490-175740-4
Matrix: Solid
Percent Solids: 84.6

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.32	J	1.2	0.31	mg/Kg	☼	07/15/19 08:00	07/30/19 15:50	2
Aluminum	16000		120	19	mg/Kg	☼	07/15/19 08:00	07/30/19 13:46	10
Antimony	3.5	U	3.5	0.17	mg/Kg	☼	07/15/19 08:00	07/30/19 12:55	1
Barium	210		30	1.4	mg/Kg	☼	07/15/19 08:00	07/30/19 13:46	10
Beryllium	0.26	J	0.30	0.0089	mg/Kg	☼	07/15/19 08:00	07/30/19 12:55	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	07/15/19 08:00	07/30/19 12:55	1
Chromium	4.3		0.59	0.083	mg/Kg	☼	07/15/19 08:00	07/30/19 12:55	1
Cobalt	0.50	J	5.9	0.35	mg/Kg	☼	07/15/19 08:00	07/30/19 15:50	2
Iron	1200		5.9	4.8	mg/Kg	☼	07/15/19 08:00	07/30/19 12:55	1
Lead	3.2		1.2	0.26	mg/Kg	☼	07/15/19 08:00	07/30/19 15:50	2
Selenium	1.2	U	1.2	0.40	mg/Kg	☼	07/15/19 08:00	07/30/19 15:50	2
Thallium	0.49	J	4.1	0.43	mg/Kg	☼	07/15/19 08:00	07/30/19 15:50	2
Lithium	2.3	J	3.0	0.18	mg/Kg	☼	07/15/19 08:00	07/30/19 12:55	1
Molybdenum	2.4	U	2.4	0.097	mg/Kg	☼	07/15/19 08:00	07/30/19 12:55	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17000		10	1.6	mg/Kg			08/01/19 13:44	1
Antimony	3.0	U	3.0	0.14	mg/Kg			08/01/19 13:44	1
Arsenic	2.1		0.50	0.13	mg/Kg			08/01/19 13:44	1
Barium	220		2.5	0.12	mg/Kg			08/01/19 13:44	1
Beryllium	0.31		0.25	0.0075	mg/Kg			08/01/19 13:44	1
Cadmium	0.096	J	0.25	0.011	mg/Kg			08/01/19 13:44	1
Chromium	8.9		0.50	0.070	mg/Kg			08/01/19 13:44	1
Cobalt	4.0		2.5	0.023	mg/Kg			08/01/19 13:44	1
Iron	3000		5.0	4.1	mg/Kg			08/01/19 13:44	1
Lead	5.7		0.50	0.11	mg/Kg			08/01/19 13:44	1
Selenium	1.4		0.50	0.17	mg/Kg			08/01/19 13:44	1
Thallium	0.49	J	1.8	0.18	mg/Kg			08/01/19 13:44	1
Li	4.1		2.5	0.15	mg/Kg			08/01/19 13:44	1
Mo	0.25	J	2.0	0.082	mg/Kg			08/01/19 13:44	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	22000		120	19	mg/Kg	☼	06/17/19 08:00	07/30/19 15:14	10
Antimony	3.5	U	3.5	0.17	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Arsenic	2.2		0.59	0.15	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Barium	250		30	1.4	mg/Kg	☼	06/17/19 08:00	07/30/19 15:14	10
Beryllium	0.34		0.30	0.0089	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Chromium	8.9		0.59	0.083	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Cobalt	4.6		3.0	0.18	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Iron	3700		5.9	4.8	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Lead	5.5		0.59	0.13	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Lithium	5.0		3.0	0.18	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Molybdenum	0.59	J	2.4	0.097	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Selenium	0.59	U	0.59	0.20	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1
Thallium	0.37	J	2.1	0.21	mg/Kg	☼	06/17/19 08:00	07/30/19 14:23	1

Client Sample Results

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: GAMW-42C-10-12ft
Lab Sample ID: 490-175740-4
Date Collected: 06/07/19 15:20
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 84.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1500**		12	5.1	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Antimony	18	U	18	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Arsenic	**1.0**	**J**	2.3	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Barium	**7.2**		0.58	0.13	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Beryllium	**0.064**	**J**	0.23	0.033	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Boron	**1.8**	**J B**	2.3	0.22	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Cadmium	**0.065**	**J**	0.23	0.035	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Chromium	**3.0**		0.58	0.23	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Cobalt	**2.5**		0.58	0.058	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Iron	**1500**	**B**	12	4.1	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Lead	**2.0**		1.2	0.28	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Lithium	**1.7**	**J**	5.8	0.58	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Molybdenum	**0.36**	**J B**	1.2	0.15	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Selenium	4.7	U	4.7	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1
Thallium	7.0	U	7.0	0.35	mg/Kg	☼	06/18/19 10:02	06/20/19 22:47	1

Method: 7470A - SEP Mercury (CVAA) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.12	U	0.12	0.047	mg/Kg	☼	06/17/19 08:00	06/18/19 13:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024	U	0.024	0.0098	mg/Kg	☼	06/19/19 13:22	06/19/19 15:19	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**15.4**		0.1	0.1	%			06/17/19 18:17	1

Client Sample ID: GAMW-57B-10-12ft
Lab Sample ID: 490-175740-5
Date Collected: 06/07/19 08:40
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 83.9

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4	U	2.4	0.62	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Aluminum	**11**	**J**	48	7.6	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Antimony	14	U	14	1.3	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Barium	**0.74**	**J**	12	0.57	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Beryllium	1.2	U	1.2	0.37	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Cadmium	1.2	U	1.2	0.076	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Chromium	2.4	U	2.4	0.33	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Cobalt	12	U	12	0.21	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Iron	24	U	24	14	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Lead	2.4	U	2.4	0.52	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Selenium	2.4	U	2.4	0.81	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Thallium	8.3	U	8.3	1.0	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Lithium	12	U	12	0.71	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4
Molybdenum	9.5	U	9.5	0.39	mg/Kg	☼	06/29/19 08:00	07/12/19 15:53	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8	U	1.8	0.46	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Aluminum	**23**	**J ***	36	5.7	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Antimony	11	U	11	1.0	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Barium	**1.8**	**J ***	8.9	0.43	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Beryllium	0.89	U *	0.89	0.057	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Cadmium	0.89	U	0.89	0.039	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Chromium	1.8	U	1.8	0.25	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Cobalt	8.9	U	8.9	0.23	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Iron	**10**	**J ***	18	10	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Lead	**0.48**	**J**	1.8	0.39	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Selenium	1.8	U	1.8	0.61	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Thallium	6.3	U	6.3	0.75	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Lithium	8.9	U	8.9	0.54	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3
Molybdenum	7.1	U	7.1	0.29	mg/Kg	☼	07/03/19 08:00	07/12/19 17:01	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.8**		0.60	0.15	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Aluminum	**240**		12	2.5	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Antimony	3.6	U	3.6	0.33	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Barium	**4.9**	**B**	3.0	0.14	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Beryllium	**0.062**	**J**	0.30	0.018	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Cadmium	**0.025**	**J B ***	0.30	0.013	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Chromium	**0.58**	**J**	0.60	0.083	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Cobalt	**0.061**	**J**	3.0	0.054	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Iron	**970**		6.0	3.5	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Lead	**0.88**	****	0.60	0.13	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Selenium	0.60	U	0.60	0.20	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Thallium	2.1	U	2.1	0.25	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Lithium	3.0	U	3.0	0.18	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1
Molybdenum	**0.20**	**J**	2.4	0.098	mg/Kg	☼	07/09/19 08:00	07/29/19 12:04	1

Client Sample ID: GAMW-57B-10-12ft **Lab Sample ID: 490-175740-5**
Date Collected: 06/07/19 08:40 **Matrix: Solid**
Date Received: 06/11/19 08:45 **Percent Solids: 83.9**

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.6**	**B**	0.60	0.26	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Aluminum	**2100**		12	1.9	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Antimony	3.6	U	3.6	0.54	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Barium	**8.3**		3.0	0.14	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Beryllium	**0.071**	**J**	0.30	0.019	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Cadmium	**0.047**	**J**	0.30	0.013	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Chromium	**1.9**		0.60	0.083	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Cobalt	**0.79**	**J**	3.0	0.063	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Iron	**2100**		6.0	3.5	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Lead	**0.93**		0.60	0.13	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Selenium	0.60	U *	0.60	0.56	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Thallium	2.1	U *	2.1	0.35	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Lithium	**0.76**	**J**	3.0	0.18	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1
Molybdenum	**0.17**	**J**	2.4	0.098	mg/Kg	☼	07/10/19 08:00	07/29/19 13:25	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9	U	8.9	2.3	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Aluminum	**73**	**J B ***	180	28	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Antimony	54	U	54	5.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Barium	45	U *	45	2.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Beryllium	4.5	U *	4.5	0.38	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Cadmium	4.5	U	4.5	0.19	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Chromium	**1.9**	**J**	8.9	1.3	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Cobalt	45	U *	45	0.71	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Iron	89	U *	89	52	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Lead	8.9	U *	8.9	2.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Selenium	8.9	U	8.9	3.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Thallium	31	U *	31	4.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Lithium	45	U	45	2.6	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5
Molybdenum	36	U	36	1.5	mg/Kg	☼	07/12/19 08:00	07/29/19 14:34	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.52**	**J**	0.60	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Aluminum	**2000**		12	1.9	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Antimony	3.6	U	3.6	0.33	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Barium	**2.4**	**J**	3.0	0.14	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Beryllium	**0.035**	**J**	0.30	0.014	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Chromium	**1.4**		0.60	0.083	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Cobalt	**0.38**	**J**	3.0	0.055	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Iron	**1200**		6.0	3.5	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Lead	**0.35**	**J**	0.60	0.13	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Selenium	0.60	U	0.60	0.20	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Thallium	2.1	U	2.1	0.25	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Lithium	**1.2**	**J**	3.0	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1
Molybdenum	2.4	U	2.4	0.12	mg/Kg	☼	07/12/19 08:00	07/29/19 15:36	1

Client Sample ID: GAMW-57B-10-12ft **Lab Sample ID: 490-175740-5**
Date Collected: 06/07/19 08:40 **Matrix: Solid**
Date Received: 06/11/19 08:45 **Percent Solids: 83.9**

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2	U	1.2	0.31	mg/Kg	☼	07/15/19 08:00	07/30/19 15:55	2
Aluminum	**13000**		120	19	mg/Kg	☼	07/15/19 08:00	07/30/19 13:51	10
Antimony	**0.17**	**J**	3.6	0.17	mg/Kg	☼	07/15/19 08:00	07/30/19 13:00	1
Barium	**200**		30	1.4	mg/Kg	☼	07/15/19 08:00	07/30/19 13:51	10
Beryllium	**0.20**	**J**	0.30	0.0089	mg/Kg	☼	07/15/19 08:00	07/30/19 13:00	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	07/15/19 08:00	07/30/19 13:00	1
Chromium	**2.9**		0.60	0.083	mg/Kg	☼	07/15/19 08:00	07/30/19 13:00	1
Cobalt	**0.46**	**J**	6.0	0.36	mg/Kg	☼	07/15/19 08:00	07/30/19 15:55	2
Iron	**940**		6.0	4.9	mg/Kg	☼	07/15/19 08:00	07/30/19 13:00	1
Lead	**3.3**		1.2	0.26	mg/Kg	☼	07/15/19 08:00	07/30/19 15:55	2
Selenium	1.2	U	1.2	0.41	mg/Kg	☼	07/15/19 08:00	07/30/19 15:55	2
Thallium	**0.58**	**J**	4.2	0.43	mg/Kg	☼	07/15/19 08:00	07/30/19 15:55	2
Lithium	**2.3**	**J**	3.0	0.18	mg/Kg	☼	07/15/19 08:00	07/30/19 13:00	1
Molybdenum	2.4	U	2.4	0.098	mg/Kg	☼	07/15/19 08:00	07/30/19 13:00	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18000**		10	1.6	mg/Kg			08/01/19 13:44	1
Antimony	**0.17**	**J**	3.0	0.14	mg/Kg			08/01/19 13:44	1
Arsenic	**3.9**		0.50	0.13	mg/Kg			08/01/19 13:44	1
Barium	**220**		2.5	0.12	mg/Kg			08/01/19 13:44	1
Beryllium	**0.37**		0.25	0.0075	mg/Kg			08/01/19 13:44	1
Cadmium	**0.072**	**J**	0.25	0.011	mg/Kg			08/01/19 13:44	1
Chromium	**8.7**		0.50	0.070	mg/Kg			08/01/19 13:44	1
Cobalt	**1.7**	**J**	2.5	0.023	mg/Kg			08/01/19 13:44	1
Iron	**5200**		5.0	4.1	mg/Kg			08/01/19 13:44	1
Lead	**6.0**		0.50	0.11	mg/Kg			08/01/19 13:44	1
Selenium	0.50	U	0.50	0.17	mg/Kg			08/01/19 13:44	1
Thallium	**0.58**	**J**	1.8	0.18	mg/Kg			08/01/19 13:44	1
Li	**4.3**		2.5	0.15	mg/Kg			08/01/19 13:44	1
Mo	**0.36**	**J**	2.0	0.082	mg/Kg			08/01/19 13:44	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21000**		120	19	mg/Kg	☼	06/17/19 08:00	07/30/19 15:19	10
Antimony	3.6	U	3.6	0.17	mg/Kg	☼	06/17/19 08:00	07/30/19 14:44	1
Arsenic	**4.1**		1.2	0.31	mg/Kg	☼	06/17/19 08:00	07/30/19 16:06	2
Barium	**260**		30	1.4	mg/Kg	☼	06/17/19 08:00	07/30/19 15:19	10
Beryllium	**0.38**		0.30	0.0089	mg/Kg	☼	06/17/19 08:00	07/30/19 14:44	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	06/17/19 08:00	07/30/19 14:44	1
Chromium	**7.7**		0.60	0.083	mg/Kg	☼	06/17/19 08:00	07/30/19 14:44	1
Cobalt	**1.8**	**J**	6.0	0.36	mg/Kg	☼	06/17/19 08:00	07/30/19 16:06	2
Iron	**5300**		6.0	4.9	mg/Kg	☼	06/17/19 08:00	07/30/19 14:44	1
Lead	**5.9**		1.2	0.26	mg/Kg	☼	06/17/19 08:00	07/30/19 16:06	2
Lithium	**4.1**		3.0	0.18	mg/Kg	☼	06/17/19 08:00	07/30/19 14:44	1
Molybdenum	**0.44**	**J**	2.4	0.098	mg/Kg	☼	06/17/19 08:00	07/30/19 14:44	1
Selenium	1.2	U	1.2	0.41	mg/Kg	☼	06/17/19 08:00	07/30/19 16:06	2
Thallium	4.2	U	4.2	0.43	mg/Kg	☼	06/17/19 08:00	07/30/19 16:06	2

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: GAMW-57B-10-12ft
Lab Sample ID: 490-175740-5
Date Collected: 06/07/19 08:40
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 83.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**4500**		12	5.1	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Antimony	17	U	17	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Arsenic	**3.1**		2.3	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Barium	**18**		0.58	0.13	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Beryllium	**0.15**	**J**	0.23	0.033	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Boron	**1.8**	**J B**	2.3	0.22	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Cadmium	**0.041**	**J**	0.23	0.035	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Chromium	**5.6**		0.58	0.23	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Cobalt	**1.2**		0.58	0.058	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Iron	**3700**	**B**	12	4.1	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Lead	**2.3**		1.2	0.28	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Lithium	**2.0**	**J**	5.8	0.58	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Molybdenum	**0.52**	**J B**	1.2	0.15	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Selenium	4.7	U	4.7	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1
Thallium	7.0	U	7.0	0.35	mg/Kg	☼	06/18/19 10:02	06/20/19 22:50	1

Method: 7470A - SEP Mercury (CVAA) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.12	U	0.12	0.048	mg/Kg	☼	06/17/19 08:00	06/18/19 13:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022	U	0.022	0.0090	mg/Kg	☼	06/19/19 13:22	06/19/19 15:20	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**16.1**		0.1	0.1	%			06/17/19 18:17	1

Client Sample ID: GAMW-42C-30-32ft
Lab Sample ID: 490-175740-6
Date Collected: 06/07/19 16:08
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 84.1

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4	U	2.4	0.62	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Aluminum	48	U	48	7.6	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Antimony	14	U	14	1.3	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Barium	12	U	12	0.57	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Beryllium	1.2	U	1.2	0.37	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Cadmium	1.2	U	1.2	0.076	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Chromium	2.4	U	2.4	0.33	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Cobalt	12	U	12	0.21	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Iron	24	U	24	14	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Lead	2.4	U	2.4	0.52	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Selenium	2.4	U	2.4	0.81	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Thallium	8.3	U	8.3	1.0	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Lithium	12	U	12	0.71	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4
Molybdenum	9.5	U	9.5	0.39	mg/Kg	☼	06/29/19 08:00	07/12/19 15:58	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8	U	1.8	0.46	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Aluminum	**11**	**J ***	36	5.7	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Antimony	11	U	11	1.0	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Barium	**0.78**	**J ***	8.9	0.43	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Beryllium	0.89	U *	0.89	0.057	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Cadmium	0.89	U	0.89	0.039	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Chromium	**0.65**	**J**	1.8	0.25	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Cobalt	**0.34**	**J**	8.9	0.22	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Iron	**200**	*****	18	10	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Lead	**0.46**	**J**	1.8	0.39	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Selenium	1.8	U	1.8	0.61	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Thallium	6.2	U	6.2	0.75	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Lithium	8.9	U	8.9	0.54	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3
Molybdenum	7.1	U	7.1	0.29	mg/Kg	☼	07/03/19 08:00	07/12/19 17:07	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.45**	**J**	0.59	0.15	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Aluminum	**25**		12	2.5	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Antimony	3.6	U	3.6	0.33	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Barium	3.0	U	3.0	0.14	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Beryllium	0.30	U	0.30	0.018	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Cadmium	0.30	U *	0.30	0.013	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Chromium	**2.4**		0.59	0.083	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Cobalt	**0.43**	**J**	3.0	0.054	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Iron	**950**		5.9	3.4	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Lead	0.59	U *	0.59	0.13	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Selenium	0.59	U	0.59	0.20	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Thallium	2.1	U	2.1	0.25	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Lithium	3.0	U	3.0	0.18	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1
Molybdenum	**0.45**	**J**	2.4	0.098	mg/Kg	☼	07/09/19 08:00	07/29/19 12:24	1

Client Sample ID: GAMW-42C-30-32ft
Lab Sample ID: 490-175740-6
Date Collected: 06/07/19 16:08
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 84.1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.47**	**J B**	0.59	0.26	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Aluminum	**170**		12	1.9	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Antimony	3.6	U	3.6	0.54	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Barium	**1.1**	**J**	3.0	0.14	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Beryllium	0.30	U	0.30	0.019	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Cadmium	**0.073**	**J**	0.30	0.013	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Chromium	**0.93**		0.59	0.083	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Cobalt	**0.68**	**J**	3.0	0.063	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Iron	**900**		5.9	3.4	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Lead	**0.90**		0.59	0.13	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Selenium	**0.65**	**B ***	0.59	0.56	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Thallium	2.1	U *	2.1	0.34	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Lithium	**0.78**	**J**	3.0	0.18	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1
Molybdenum	**0.12**	**J**	2.4	0.098	mg/Kg	☼	07/10/19 08:00	07/29/19 13:30	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9	U	8.9	2.3	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Aluminum	**47**	**J B ***	180	28	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Antimony	54	U	54	5.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Barium	45	U *	45	2.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Beryllium	4.5	U *	4.5	0.37	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Cadmium	4.5	U	4.5	0.19	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Chromium	**2.0**	**J**	8.9	1.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Cobalt	45	U *	45	0.71	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Iron	89	U *	89	52	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Lead	8.9	U *	8.9	2.0	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Selenium	8.9	U	8.9	3.1	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Thallium	31	U *	31	4.2	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Lithium	45	U	45	2.6	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5
Molybdenum	36	U	36	1.5	mg/Kg	☼	07/12/19 08:00	07/29/19 14:40	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.63**		0.59	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Aluminum	**560**		12	1.9	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Antimony	3.6	U	3.6	0.33	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Barium	**1.1**	**J**	3.0	0.14	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Beryllium	**0.026**	**J**	0.30	0.014	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Chromium	**1.8**		0.59	0.083	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Cobalt	**0.73**	**J**	3.0	0.055	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Iron	**1600**		5.9	3.4	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Lead	**0.33**	**J**	0.59	0.13	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Selenium	0.59	U	0.59	0.20	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Thallium	2.1	U	2.1	0.25	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Lithium	**1.1**	**J**	3.0	0.18	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1
Molybdenum	2.4	U	2.4	0.12	mg/Kg	☼	07/12/19 08:00	07/29/19 15:57	1

Client Sample ID: GAMW-42C-30-32ft **Lab Sample ID: 490-175740-6**
Date Collected: 06/07/19 16:08 **Matrix: Solid**
Date Received: 06/11/19 08:45 **Percent Solids: 84.1**

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2	U	1.2	0.31	mg/Kg	☼	07/15/19 08:00	07/30/19 16:00	2
Aluminum	**14000**		120	19	mg/Kg	☼	07/15/19 08:00	07/30/19 13:56	10
Antimony	3.6	U	3.6	0.17	mg/Kg	☼	07/15/19 08:00	07/30/19 13:05	1
Barium	**180**		30	1.4	mg/Kg	☼	07/15/19 08:00	07/30/19 13:56	10
Beryllium	**0.22**	**J**	0.30	0.0089	mg/Kg	☼	07/15/19 08:00	07/30/19 13:05	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	07/15/19 08:00	07/30/19 13:05	1
Chromium	**6.4**		0.59	0.083	mg/Kg	☼	07/15/19 08:00	07/30/19 13:05	1
Cobalt	**0.90**	**J**	5.9	0.36	mg/Kg	☼	07/15/19 08:00	07/30/19 16:00	2
Iron	**2200**		5.9	4.9	mg/Kg	☼	07/15/19 08:00	07/30/19 13:05	1
Lead	**3.2**		1.2	0.26	mg/Kg	☼	07/15/19 08:00	07/30/19 16:00	2
Selenium	1.2	U	1.2	0.40	mg/Kg	☼	07/15/19 08:00	07/30/19 16:00	2
Thallium	**0.57**	**J**	4.2	0.43	mg/Kg	☼	07/15/19 08:00	07/30/19 16:00	2
Lithium	**1.8**	**J**	3.0	0.18	mg/Kg	☼	07/15/19 08:00	07/30/19 13:05	1
Molybdenum	2.4	U	2.4	0.098	mg/Kg	☼	07/15/19 08:00	07/30/19 13:05	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15000**		10	1.6	mg/Kg			08/01/19 13:44	1
Antimony	3.0	U	3.0	0.14	mg/Kg			08/01/19 13:44	1
Arsenic	**1.5**		0.50	0.13	mg/Kg			08/01/19 13:44	1
Barium	**180**		2.5	0.12	mg/Kg			08/01/19 13:44	1
Beryllium	**0.24**	**J**	0.25	0.0075	mg/Kg			08/01/19 13:44	1
Cadmium	**0.073**	**J**	0.25	0.011	mg/Kg			08/01/19 13:44	1
Chromium	**14**		0.50	0.070	mg/Kg			08/01/19 13:44	1
Cobalt	**3.1**		2.5	0.023	mg/Kg			08/01/19 13:44	1
Iron	**5800**		5.0	4.1	mg/Kg			08/01/19 13:44	1
Lead	**4.9**		0.50	0.11	mg/Kg			08/01/19 13:44	1
Selenium	**0.65**		0.50	0.17	mg/Kg			08/01/19 13:44	1
Thallium	**0.57**	**J**	1.8	0.18	mg/Kg			08/01/19 13:44	1
Li	**3.7**		2.5	0.15	mg/Kg			08/01/19 13:44	1
Mo	**0.57**	**J**	2.0	0.082	mg/Kg			08/01/19 13:44	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**18000**		120	19	mg/Kg	☼	06/17/19 08:00	07/30/19 15:24	10
Antimony	3.6	U	3.6	0.17	mg/Kg	☼	06/17/19 08:00	07/30/19 14:49	1
Arsenic	**1.6**		1.2	0.31	mg/Kg	☼	06/17/19 08:00	07/30/19 16:11	2
Barium	**210**		30	1.4	mg/Kg	☼	06/17/19 08:00	07/30/19 15:24	10
Beryllium	**0.25**	**J**	0.30	0.0089	mg/Kg	☼	06/17/19 08:00	07/30/19 14:49	1
Cadmium	0.30	U	0.30	0.013	mg/Kg	☼	06/17/19 08:00	07/30/19 14:49	1
Chromium	**14**		0.59	0.083	mg/Kg	☼	06/17/19 08:00	07/30/19 14:49	1
Cobalt	**3.3**	**J**	5.9	0.36	mg/Kg	☼	06/17/19 08:00	07/30/19 16:11	2
Iron	**5600**		5.9	4.9	mg/Kg	☼	06/17/19 08:00	07/30/19 14:49	1
Lead	**5.2**		1.2	0.26	mg/Kg	☼	06/17/19 08:00	07/30/19 16:11	2
Lithium	**5.1**		3.0	0.18	mg/Kg	☼	06/17/19 08:00	07/30/19 14:49	1
Molybdenum	**1.0**	**J**	2.4	0.098	mg/Kg	☼	06/17/19 08:00	07/30/19 14:49	1
Selenium	1.2	U	1.2	0.40	mg/Kg	☼	06/17/19 08:00	07/30/19 16:11	2
Thallium	**0.85**	**J**	4.2	0.43	mg/Kg	☼	06/17/19 08:00	07/30/19 16:11	2

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: GAMW-42C-30-32ft
Lab Sample ID: 490-175740-6
Date Collected: 06/07/19 16:08
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 84.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1400**		12	5.2	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Antimony	18	U	18	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Arsenic	**0.95**	**J**	2.3	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Barium	**5.2**		0.59	0.13	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Beryllium	**0.070**	**J**	0.23	0.033	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Boron	**2.6**	**B**	2.3	0.22	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Cadmium	**0.087**	**J**	0.23	0.035	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Chromium	**6.6**		0.59	0.23	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Cobalt	**2.5**		0.59	0.059	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Iron	**3300**	**B**	12	4.1	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Lead	**2.4**		1.2	0.28	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Lithium	**2.6**	**J**	5.9	0.59	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Molybdenum	**0.64**	**J B**	1.2	0.15	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Selenium	4.7	U	4.7	0.47	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1
Thallium	7.0	U	7.0	0.35	mg/Kg	☼	06/18/19 10:02	06/20/19 22:54	1

Method: 7470A - SEP Mercury (CVAA) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.12	U	0.12	0.048	mg/Kg	☼	06/17/19 08:00	06/18/19 13:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023	U	0.023	0.0095	mg/Kg	☼	06/19/19 13:22	06/19/19 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**15.9**		0.1	0.1	%			06/17/19 18:17	1

Method: 6010B - SEP Metals (ICP) - Total

Lab Sample ID: MB 140-30867/8-A
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30867

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10	U	10	1.6	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Antimony	3.0	U	3.0	0.14	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Arsenic	0.138	J	0.50	0.13	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Barium	2.5	U	2.5	0.12	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Beryllium	0.25	U	0.25	0.0075	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Cadmium	0.25	U	0.25	0.011	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Chromium	0.50	U	0.50	0.070	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Cobalt	2.5	U	2.5	0.15	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Iron	5.0	U	5.0	4.1	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Lead	0.50	U	0.50	0.11	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Lithium	2.5	U	2.5	0.15	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Molybdenum	2.0	U	2.0	0.082	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Selenium	0.50	U	0.50	0.17	mg/Kg		06/17/19 08:00	07/30/19 11:53	1
Thallium	1.8	U	1.8	0.18	mg/Kg		06/17/19 08:00	07/30/19 11:53	1

Lab Sample ID: LCS 140-30867/9-A
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30867

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	100	100		mg/Kg		100	75 - 125
Antimony	25.0	25.8		mg/Kg		103	75 - 125
Arsenic	5.00	5.33		mg/Kg		107	75 - 125
Barium	5.00	5.08		mg/Kg		102	75 - 125
Beryllium	2.50	2.58		mg/Kg		103	75 - 125
Cadmium	2.50	2.63		mg/Kg		105	75 - 125
Chromium	10.0	10.6		mg/Kg		106	75 - 125
Cobalt	5.00	5.19		mg/Kg		104	75 - 125
Iron	50.0	54.5		mg/Kg		109	75 - 125
Lead	5.00	5.09		mg/Kg		102	75 - 125
Lithium	5.00	5.16		mg/Kg		103	75 - 125
Molybdenum	25.0	26.4		mg/Kg		106	75 - 125
Selenium	7.50	7.41		mg/Kg		99	75 - 125
Thallium	20.0	21.1		mg/Kg		105	75 - 125

Lab Sample ID: LCSD 140-30867/10-A
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30867

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	100	101		mg/Kg		101	75 - 125	0	30
Antimony	25.0	26.1		mg/Kg		105	75 - 125	1	30
Arsenic	5.00	5.42		mg/Kg		108	75 - 125	2	30
Barium	5.00	5.19		mg/Kg		104	75 - 125	2	30
Beryllium	2.50	2.63		mg/Kg		105	75 - 125	2	30
Cadmium	2.50	2.68		mg/Kg		107	75 - 125	2	30
Chromium	10.0	10.8		mg/Kg		108	75 - 125	2	30
Cobalt	5.00	5.28		mg/Kg		106	75 - 125	2	30
Iron	50.0	54.9		mg/Kg		110	75 - 125	1	30

Method: 6010B - SEP Metals (ICP) - Total (Continued)

Lab Sample ID: LCSD 140-30867/10-A
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30867

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			5.00	5.16		mg/Kg		103	75 - 125	1	30
Lithium			5.00	5.21		mg/Kg		104	75 - 125	1	30
Molybdenum			25.0	26.9		mg/Kg		107	75 - 125	2	30
Selenium			7.50	7.59		mg/Kg		101	75 - 125	2	30
Thallium			20.0	21.4		mg/Kg		107	75 - 125	2	30

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: OW-9-10-12
Prep Type: Total/NA
Prep Batch: 30867

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Antimony	3.5	U		3.5	U	mg/Kg	☼			NC	30
Arsenic	1.9			2.00		mg/Kg	☼			7	30
Beryllium	0.41			0.409		mg/Kg	☼			0.7	30
Cadmium	0.29	U		0.29	U	mg/Kg	☼			NC	30
Chromium	11			11.4		mg/Kg	☼			0.8	30
Cobalt	2.5	J		2.67	J	mg/Kg	☼			7	30
Iron	7500			7640		mg/Kg	☼			2	30
Lead	7.4			7.48		mg/Kg	☼			1	30
Lithium	6.8			6.78		mg/Kg	☼			0.05	30
Molybdenum	0.22	J		0.226	J	mg/Kg	☼			3	30
Selenium	0.59	U		0.59	U	mg/Kg	☼			NC	30
Thallium	0.58	J		0.646	J	mg/Kg	☼			11	30

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: OW-9-10-12
Prep Type: Total/NA
Prep Batch: 30867

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Aluminum	29000			29800		mg/Kg	☼			3	30
Barium	390			392		mg/Kg	☼			2	30

Method: 6010B SEP - SEP Metals (ICP)

Lab Sample ID: MB 140-31149/8-B ^4
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: Method Blank
Prep Type: Step 1
Prep Batch: 31251

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0	U	2.0	0.52	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Aluminum	40	U	40	6.4	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Antimony	12	U	12	1.1	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Barium	10	U	10	0.48	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Beryllium	1.0	U	1.0	0.31	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Cadmium	1.0	U	1.0	0.064	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Chromium	2.0	U	2.0	0.28	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Cobalt	10	U	10	0.18	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Iron	20	U	20	12	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Lead	2.0	U	2.0	0.44	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Selenium	2.0	U	2.0	0.68	mg/Kg		06/29/19 08:00	07/12/19 14:57	4

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: MB 140-31149/8-B ^4
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: Method Blank
Prep Type: Step 1
Prep Batch: 31251

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	7.0	U	7.0	0.84	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Lithium	10	U	10	0.60	mg/Kg		06/29/19 08:00	07/12/19 14:57	4
Molybdenum	8.0	U	8.0	0.33	mg/Kg		06/29/19 08:00	07/12/19 14:57	4

Lab Sample ID: LCS 140-31149/9-B ^5
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: Lab Control Sample
Prep Type: Step 1
Prep Batch: 31251

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.20		mg/Kg		104	75 - 125
Aluminum	100	97.0		mg/Kg		97	75 - 125
Antimony	25.0	25.4		mg/Kg		102	75 - 125
Barium	5.00	4.57	J	mg/Kg		91	75 - 125
Beryllium	2.50	2.61		mg/Kg		104	75 - 125
Cadmium	2.50	2.53		mg/Kg		101	75 - 125
Chromium	10.0	10.1		mg/Kg		101	75 - 125
Cobalt	5.00	4.99	J	mg/Kg		100	75 - 125
Iron	50.0	50.3		mg/Kg		101	75 - 125
Lead	5.00	4.90		mg/Kg		98	75 - 125
Selenium	7.50	7.89		mg/Kg		105	75 - 125
Thallium	20.0	20.5		mg/Kg		102	75 - 125
Lithium	5.00	5.15	J	mg/Kg		103	75 - 125
Molybdenum	25.0	25.5		mg/Kg		102	75 - 125

Lab Sample ID: LCSD 140-31149/10-B ^5
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 1
Prep Batch: 31251

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	4.88		mg/Kg		98	75 - 125	6	30
Aluminum	100	102		mg/Kg		102	75 - 125	5	30
Antimony	25.0	25.4		mg/Kg		102	75 - 125	0	30
Barium	5.00	4.55	J	mg/Kg		91	75 - 125	0	30
Beryllium	2.50	2.62		mg/Kg		105	75 - 125	0	30
Cadmium	2.50	2.56		mg/Kg		102	75 - 125	1	30
Chromium	10.0	10.0		mg/Kg		100	75 - 125	1	30
Cobalt	5.00	5.00	J	mg/Kg		100	75 - 125	0	30
Iron	50.0	50.6		mg/Kg		101	75 - 125	1	30
Lead	5.00	5.11		mg/Kg		102	75 - 125	4	30
Selenium	7.50	7.53		mg/Kg		100	75 - 125	5	30
Thallium	20.0	20.4		mg/Kg		102	75 - 125	0	30
Lithium	5.00	4.87	J	mg/Kg		97	75 - 125	6	30
Molybdenum	25.0	25.3		mg/Kg		101	75 - 125	1	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: OW-9-10-12
Prep Type: Step 1
Prep Batch: 31251

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	2.3	U	2.3	U	mg/Kg	☼	NC	30
Aluminum	47	U	47	U	mg/Kg	☼	NC	30
Antimony	14	U	14	U	mg/Kg	☼	NC	30
Barium	0.58	J	12	U	mg/Kg	☼	NC	30
Beryllium	1.2	U	1.2	U	mg/Kg	☼	NC	30
Cadmium	1.2	U	1.2	U	mg/Kg	☼	NC	30
Chromium	2.3	U	2.3	U	mg/Kg	☼	NC	30
Cobalt	12	U	12	U	mg/Kg	☼	NC	30
Iron	23	U	23	U	mg/Kg	☼	NC	30
Lead	2.3	U	2.3	U	mg/Kg	☼	NC	30
Selenium	2.3	U	2.3	U	mg/Kg	☼	NC	30
Thallium	8.2	U	8.2	U	mg/Kg	☼	NC	30
Lithium	12	U	12	U	mg/Kg	☼	NC	30
Molybdenum	9.4	U	9.4	U	mg/Kg	☼	NC	30

Lab Sample ID: MB 140-31342/8-B ^3
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: Method Blank
Prep Type: Step 2
Prep Batch: 31359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.5	U	1.5	0.39	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Aluminum	30	U	30	4.8	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Antimony	9.0	U	9.0	0.84	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Barium	7.5	U	7.5	0.36	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Beryllium	0.75	U	0.75	0.048	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Cadmium	0.75	U	0.75	0.033	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Chromium	1.5	U	1.5	0.21	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Cobalt	7.5	U	7.5	0.19	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Iron	15	U	15	8.7	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Lead	1.5	U	1.5	0.33	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Selenium	1.5	U	1.5	0.51	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Thallium	5.3	U	5.3	0.63	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Lithium	7.5	U	7.5	0.45	mg/Kg		07/03/19 08:00	07/12/19 16:04	3
Molybdenum	6.0	U	6.0	0.25	mg/Kg		07/03/19 08:00	07/12/19 16:04	3

Lab Sample ID: LCS 140-31342/9-B ^5
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: Lab Control Sample
Prep Type: Step 2
Prep Batch: 31359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	3.81		mg/Kg		76	75 - 125
Aluminum	100	50	U *	mg/Kg		1	75 - 125
Antimony	25.0	22.0		mg/Kg		88	75 - 125
Barium	5.00	2.13	J *	mg/Kg		43	75 - 125
Beryllium	2.50	1.34	*	mg/Kg		54	75 - 125
Cadmium	2.50	2.37		mg/Kg		95	75 - 125
Chromium	10.0	7.54		mg/Kg		75	75 - 125
Cobalt	5.00	4.47	J	mg/Kg		89	75 - 125
Iron	50.0	25	U *	mg/Kg		5	75 - 125

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-31342/9-B ^5
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: Lab Control Sample
Prep Type: Step 2
Prep Batch: 31359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	4.37		mg/Kg		87	75 - 125
Selenium	7.50	6.22		mg/Kg		83	75 - 125
Thallium	20.0	18.1		mg/Kg		91	75 - 125
Lithium	5.00	4.31	J	mg/Kg		86	75 - 125
Molybdenum	25.0	20.7		mg/Kg		83	75 - 125

Lab Sample ID: LCSD 140-31342/10-B ^5
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 2
Prep Batch: 31359

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	3.93		mg/Kg		79	75 - 125	3	30
Aluminum	100	50	U *	mg/Kg		-0.1	75 - 125	244	30
Antimony	25.0	21.6		mg/Kg		87	75 - 125	2	30
Barium	5.00	2.19	J *	mg/Kg		44	75 - 125	3	30
Beryllium	2.50	1.39	*	mg/Kg		55	75 - 125	3	30
Cadmium	2.50	2.46		mg/Kg		98	75 - 125	4	30
Chromium	10.0	7.65		mg/Kg		77	75 - 125	2	30
Cobalt	5.00	4.63	J	mg/Kg		93	75 - 125	3	30
Iron	50.0	25	U *	mg/Kg		8	75 - 125	45	30
Lead	5.00	4.54		mg/Kg		91	75 - 125	4	30
Selenium	7.50	6.32		mg/Kg		84	75 - 125	2	30
Thallium	20.0	18.5		mg/Kg		93	75 - 125	2	30
Lithium	5.00	4.61	J	mg/Kg		92	75 - 125	7	30
Molybdenum	25.0	20.8		mg/Kg		83	75 - 125	0	30

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 31651

Client Sample ID: OW-9-10-12
Prep Type: Step 2
Prep Batch: 31359

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	1.8	U	1.8	U	mg/Kg	☼	NC	30
Aluminum	16	J *	17.9	J *	mg/Kg	☼	10	30
Antimony	11	U	11	U	mg/Kg	☼	NC	30
Barium	0.62	J *	0.635	J *	mg/Kg	☼	3	30
Beryllium	0.88	U *	0.88	U *	mg/Kg	☼	NC	30
Cadmium	0.88	U	0.88	U	mg/Kg	☼	NC	30
Chromium	0.28	J	0.288	J	mg/Kg	☼	1	30
Cobalt	8.8	U	8.8	U	mg/Kg	☼	NC	30
Iron	61	*	64.9	*	mg/Kg	☼	5	30
Lead	1.8	U	0.392	J	mg/Kg	☼	NC	30
Selenium	1.8	U	1.8	U	mg/Kg	☼	NC	30
Thallium	6.2	U	6.2	U	mg/Kg	☼	NC	30
Lithium	8.8	U	8.8	U	mg/Kg	☼	NC	30
Molybdenum	7.0	U	7.0	U	mg/Kg	☼	NC	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: MB 140-31437/8-B
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Method Blank
Prep Type: Step 3
Prep Batch: 31467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.13	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Aluminum	10	U	10	2.1	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Antimony	3.0	U	3.0	0.28	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Barium	0.143	J	2.5	0.12	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Beryllium	0.25	U	0.25	0.015	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Cadmium	0.0795	J	0.25	0.011	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Chromium	0.50	U	0.50	0.070	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Cobalt	2.5	U	2.5	0.045	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Iron	5.0	U	5.0	2.9	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Lead	0.50	U	0.50	0.11	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Selenium	0.50	U	0.50	0.17	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Thallium	1.8	U	1.8	0.21	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Lithium	2.5	U	2.5	0.15	mg/Kg		07/09/19 08:00	07/29/19 11:22	1
Molybdenum	2.0	U	2.0	0.082	mg/Kg		07/09/19 08:00	07/29/19 11:22	1

Lab Sample ID: LCS 140-31437/9-B
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample
Prep Type: Step 3
Prep Batch: 31467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	4.91		mg/Kg		98	75 - 125
Aluminum	100	94.1		mg/Kg		94	75 - 125
Antimony	25.0	23.7		mg/Kg		95	75 - 125
Barium	5.00	4.35		mg/Kg		87	75 - 125
Beryllium	2.50	2.54		mg/Kg		102	75 - 125
Cadmium	2.50	0.506	*	mg/Kg		20	75 - 125
Chromium	10.0	9.81		mg/Kg		98	75 - 125
Cobalt	5.00	4.90		mg/Kg		98	75 - 125
Iron	50.0	49.4		mg/Kg		99	75 - 125
Lead	5.00	0.50	U *	mg/Kg		1	75 - 125
Selenium	7.50	7.39		mg/Kg		98	75 - 125
Thallium	20.0	20.1		mg/Kg		101	75 - 125
Lithium	5.00	4.96		mg/Kg		99	75 - 125
Molybdenum	25.0	24.5		mg/Kg		98	75 - 125

Lab Sample ID: LCSD 140-31437/10-B
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 3
Prep Batch: 31467

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	4.94		mg/Kg		99	75 - 125	1	30
Aluminum	100	95.2		mg/Kg		95	75 - 125	1	30
Antimony	25.0	24.2		mg/Kg		97	75 - 125	2	30
Barium	5.00	4.48		mg/Kg		90	75 - 125	3	30
Beryllium	2.50	2.59		mg/Kg		104	75 - 125	2	30
Cadmium	2.50	0.562	*	mg/Kg		22	75 - 125	10	30
Chromium	10.0	10.0		mg/Kg		100	75 - 125	2	30
Cobalt	5.00	4.99		mg/Kg		100	75 - 125	2	30
Iron	50.0	50.1		mg/Kg		100	75 - 125	1	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCSD 140-31437/10-B
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 3
Prep Batch: 31467

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			5.00	0.50	U *	mg/Kg		0.8	75 - 125	52	30
Selenium			7.50	7.54		mg/Kg		101	75 - 125	2	30
Thallium			20.0	20.6		mg/Kg		103	75 - 125	2	30
Lithium			5.00	5.06		mg/Kg		101	75 - 125	2	30
Molybdenum			25.0	25.0		mg/Kg		100	75 - 125	2	30

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: OW-9-10-12
Prep Type: Step 3
Prep Batch: 31467

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	0.43	J		0.467	J	mg/Kg	☼			8	30
Aluminum	60			72.1		mg/Kg	☼			19	30
Antimony	3.5	U		3.5	U	mg/Kg	☼			NC	30
Barium	0.62	J B		0.727	J	mg/Kg	☼			16	30
Beryllium	0.021	J		0.0234	J	mg/Kg	☼			13	30
Cadmium	0.29	U *		0.29	U *	mg/Kg	☼			NC	30
Chromium	0.52	J		0.597		mg/Kg	☼			14	30
Cobalt	0.27	J		0.286	J	mg/Kg	☼			5	30
Iron	710			687		mg/Kg	☼			3	30
Lead	0.59	U *		0.59	U *	mg/Kg	☼			NC	30
Selenium	0.22	J		0.59	U	mg/Kg	☼			NC	30
Thallium	2.1	U		2.1	U	mg/Kg	☼			NC	30
Lithium	2.9	U		2.9	U	mg/Kg	☼			NC	30
Molybdenum	2.3	U		2.3	U	mg/Kg	☼			NC	30

Lab Sample ID: MB 140-31468/8-B
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Method Blank
Prep Type: Step 4
Prep Batch: 31501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.297	J	0.50	0.22	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Aluminum	10	U	10	1.6	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Antimony	3.0	U	3.0	0.45	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Barium	2.5	U	2.5	0.12	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Beryllium	0.25	U	0.25	0.016	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Cadmium	0.25	U	0.25	0.011	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Chromium	0.50	U	0.50	0.070	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Cobalt	2.5	U	2.5	0.053	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Iron	5.0	U	5.0	2.9	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Lead	0.50	U	0.50	0.11	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Selenium	0.673		0.50	0.47	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Thallium	1.8	U	1.8	0.29	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Lithium	2.5	U	2.5	0.15	mg/Kg		07/10/19 08:00	07/29/19 12:29	1
Molybdenum	2.0	U	2.0	0.082	mg/Kg		07/10/19 08:00	07/29/19 12:29	1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-31468/9-B
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample
Prep Type: Step 4
Prep Batch: 31501

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.21		mg/Kg		104	75 - 125
Aluminum	100	94.5		mg/Kg		94	75 - 125
Antimony	25.0	24.0		mg/Kg		96	75 - 125
Barium	5.00	4.94		mg/Kg		99	75 - 125
Beryllium	2.50	2.60		mg/Kg		104	75 - 125
Cadmium	2.50	2.51		mg/Kg		101	75 - 125
Chromium	10.0	9.86		mg/Kg		99	75 - 125
Cobalt	5.00	4.98		mg/Kg		100	75 - 125
Iron	50.0	48.9		mg/Kg		98	75 - 125
Lead	5.00	4.93		mg/Kg		99	75 - 125
Selenium	7.50	0.512	*	mg/Kg		7	75 - 125
Thallium	20.0	9.20	*	mg/Kg		46	75 - 125
Lithium	5.00	5.03		mg/Kg		101	75 - 125
Molybdenum	25.0	25.6		mg/Kg		103	75 - 125

Lab Sample ID: LCSD 140-31468/10-B
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 4
Prep Batch: 31501

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	5.43		mg/Kg		109	75 - 125	4	30
Aluminum	100	97.1		mg/Kg		97	75 - 125	3	30
Antimony	25.0	24.6		mg/Kg		98	75 - 125	3	30
Barium	5.00	5.11		mg/Kg		102	75 - 125	3	30
Beryllium	2.50	2.66		mg/Kg		107	75 - 125	3	30
Cadmium	2.50	2.59		mg/Kg		104	75 - 125	3	30
Chromium	10.0	10.1		mg/Kg		101	75 - 125	2	30
Cobalt	5.00	5.15		mg/Kg		103	75 - 125	3	30
Iron	50.0	50.4		mg/Kg		101	75 - 125	3	30
Lead	5.00	4.94		mg/Kg		99	75 - 125	0	30
Selenium	7.50	0.501	*	mg/Kg		7	75 - 125	2	30
Thallium	20.0	10.4	*	mg/Kg		52	75 - 125	12	30
Lithium	5.00	5.22		mg/Kg		104	75 - 125	4	30
Molybdenum	25.0	26.5		mg/Kg		106	75 - 125	3	30

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: OW-9-10-12
Prep Type: Step 4
Prep Batch: 31501

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.94	B	0.861		mg/Kg	☼	9	30
Aluminum	280		355		mg/Kg	☼	25	30
Antimony	3.5	U	3.5	U	mg/Kg	☼	NC	30
Barium	5.3		5.04		mg/Kg	☼	5	30
Beryllium	0.024	J	0.0293	J	mg/Kg	☼	20	30
Cadmium	0.090	J	0.0920	J	mg/Kg	☼	3	30
Chromium	0.94		1.10		mg/Kg	☼	15	30
Cobalt	0.87	J	0.988	J	mg/Kg	☼	13	30
Iron	1700		1800		mg/Kg	☼	3	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: OW-9-10-12
Prep Type: Step 4
Prep Batch: 31501

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	1.7		1.62		mg/Kg	☼	3	30
Selenium	0.60	B *	0.59	U *	mg/Kg	☼	NC	30
Thallium	2.1	U *	2.1	U *	mg/Kg	☼	NC	30
Lithium	0.81	J	0.870	J	mg/Kg	☼	7	30
Molybdenum	2.3	U	2.3	U	mg/Kg	☼	NC	30

Lab Sample ID: MB 140-31503/8-B ^5
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Method Blank
Prep Type: Step 5
Prep Batch: 31613

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.5	U	7.5	1.9	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Aluminum	27.7	J	150	24	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Antimony	45	U	45	4.2	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Barium	38	U	38	1.8	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Beryllium	3.8	U	3.8	0.32	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Cadmium	3.8	U	3.8	0.16	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Chromium	7.5	U	7.5	1.1	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Cobalt	38	U	38	0.60	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Iron	75	U	75	44	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Lead	7.5	U	7.5	1.7	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Selenium	7.5	U	7.5	2.6	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Thallium	26	U	26	3.5	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Lithium	38	U	38	2.2	mg/Kg		07/12/19 08:00	07/29/19 13:36	5
Molybdenum	30	U	30	1.3	mg/Kg		07/12/19 08:00	07/29/19 13:36	5

Lab Sample ID: LCS 140-31503/9-B ^5
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample
Prep Type: Step 5
Prep Batch: 31613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	15.0	11.9		mg/Kg		80	75 - 125
Aluminum	300	150	U *	mg/Kg		7	75 - 125
Antimony	75.0	75.8		mg/Kg		101	75 - 125
Barium	15.0	8.62	J *	mg/Kg		57	75 - 125
Beryllium	7.50	4.43	*	mg/Kg		59	75 - 125
Cadmium	7.50	8.27		mg/Kg		110	75 - 125
Chromium	30.0	32.6		mg/Kg		109	75 - 125
Cobalt	15.0	4.93	J *	mg/Kg		33	75 - 125
Iron	150	75	U *	mg/Kg		2	75 - 125
Lead	15.0	8.08	*	mg/Kg		54	75 - 125
Selenium	22.5	25.8		mg/Kg		115	75 - 125
Thallium	60.0	24.6	J *	mg/Kg		41	75 - 125
Lithium	15.0	17.2	J	mg/Kg		114	75 - 125
Molybdenum	75.0	61.1		mg/Kg		82	75 - 125

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCSD 140-31503/10-B ^5
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 5
Prep Batch: 31613

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			15.0	12.8		mg/Kg		86	75 - 125	7	30
Aluminum			300	25.7	J *	mg/Kg		9	75 - 125	16	30
Antimony			75.0	80.0		mg/Kg		107	75 - 125	5	30
Barium			15.0	9.04	J *	mg/Kg		60	75 - 125	5	30
Beryllium			7.50	4.64	*	mg/Kg		62	75 - 125	5	30
Cadmium			7.50	8.66		mg/Kg		115	75 - 125	5	30
Chromium			30.0	33.8		mg/Kg		113	75 - 125	4	30
Cobalt			15.0	5.30	J *	mg/Kg		35	75 - 125	7	30
Iron			150	75	U *	mg/Kg		3	75 - 125	53	30
Lead			15.0	8.78	*	mg/Kg		59	75 - 125	8	30
Selenium			22.5	26.9		mg/Kg		120	75 - 125	4	30
Thallium			60.0	25.3	J *	mg/Kg		42	75 - 125	3	30
Lithium			15.0	17.2	J	mg/Kg		115	75 - 125	0	30
Molybdenum			75.0	63.2		mg/Kg		84	75 - 125	3	30

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: OW-9-10-12
Prep Type: Step 5
Prep Batch: 31613

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	8.8	U		8.8	U	mg/Kg	☼			NC	30
Aluminum	56	J B *		70.3	J *	mg/Kg	☼			22	30
Antimony	53	U		53	U	mg/Kg	☼			NC	30
Barium	44	U *		44	U *	mg/Kg	☼			NC	30
Beryllium	4.4	U *		4.4	U *	mg/Kg	☼			NC	30
Cadmium	4.4	U		4.4	U	mg/Kg	☼			NC	30
Chromium	1.5	J		1.64	J	mg/Kg	☼			11	30
Cobalt	44	U *		44	U *	mg/Kg	☼			NC	30
Iron	88	U *		88	U *	mg/Kg	☼			NC	30
Lead	8.8	U *		8.8	U *	mg/Kg	☼			NC	30
Selenium	8.8	U		8.8	U	mg/Kg	☼			NC	30
Thallium	31	U *		31	U *	mg/Kg	☼			NC	30
Lithium	44	U		44	U	mg/Kg	☼			NC	30
Molybdenum	35	U		35	U	mg/Kg	☼			NC	30

Lab Sample ID: MB 140-31614/8-A
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Method Blank
Prep Type: Step 6
Prep Batch: 31614

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.15	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Aluminum	10	U	10	1.6	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Antimony	3.0	U	3.0	0.28	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Barium	2.5	U	2.5	0.12	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Beryllium	0.25	U	0.25	0.012	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Cadmium	0.25	U	0.25	0.011	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Chromium	0.50	U	0.50	0.070	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Cobalt	2.5	U	2.5	0.046	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Iron	5.0	U	5.0	2.9	mg/Kg		07/12/19 08:00	07/29/19 14:55	1

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: MB 140-31614/8-A
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Method Blank
Prep Type: Step 6
Prep Batch: 31614

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.50	U	0.50	0.11	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Selenium	0.50	U	0.50	0.17	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Thallium	1.8	U	1.8	0.21	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Lithium	2.5	U	2.5	0.15	mg/Kg		07/12/19 08:00	07/29/19 14:55	1
Molybdenum	2.0	U	2.0	0.099	mg/Kg		07/12/19 08:00	07/29/19 14:55	1

Lab Sample ID: LCS 140-31614/9-A
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample
Prep Type: Step 6
Prep Batch: 31614

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	4.91		mg/Kg		98	75 - 125
Aluminum	100	91.4		mg/Kg		91	75 - 125
Antimony	25.0	23.7		mg/Kg		95	75 - 125
Barium	5.00	4.81		mg/Kg		96	75 - 125
Beryllium	2.50	2.49		mg/Kg		99	75 - 125
Cadmium	2.50	2.49		mg/Kg		100	75 - 125
Chromium	10.0	9.55		mg/Kg		95	75 - 125
Cobalt	5.00	4.93		mg/Kg		99	75 - 125
Iron	50.0	47.1		mg/Kg		94	75 - 125
Lead	5.00	4.90		mg/Kg		98	75 - 125
Selenium	7.50	7.42		mg/Kg		99	75 - 125
Thallium	20.0	20.7		mg/Kg		104	75 - 125
Lithium	5.00	4.91		mg/Kg		98	75 - 125
Molybdenum	25.0	24.9		mg/Kg		100	75 - 125

Lab Sample ID: LCSD 140-31614/10-A
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 6
Prep Batch: 31614

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	5.06		mg/Kg		101	75 - 125	3	30
Aluminum	100	94.5		mg/Kg		94	75 - 125	3	30
Antimony	25.0	24.1		mg/Kg		96	75 - 125	2	30
Barium	5.00	4.95		mg/Kg		99	75 - 125	3	30
Beryllium	2.50	2.54		mg/Kg		102	75 - 125	2	30
Cadmium	2.50	2.55		mg/Kg		102	75 - 125	2	30
Chromium	10.0	9.76		mg/Kg		98	75 - 125	2	30
Cobalt	5.00	5.03		mg/Kg		101	75 - 125	2	30
Iron	50.0	48.6		mg/Kg		97	75 - 125	3	30
Lead	5.00	5.07		mg/Kg		101	75 - 125	3	30
Selenium	7.50	7.68		mg/Kg		102	75 - 125	3	30
Thallium	20.0	21.1		mg/Kg		106	75 - 125	2	30
Lithium	5.00	5.06		mg/Kg		101	75 - 125	3	30
Molybdenum	25.0	25.3		mg/Kg		101	75 - 125	1	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32164

Client Sample ID: OW-9-10-12
Prep Type: Step 6
Prep Batch: 31614

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.56	J	0.560	J	mg/Kg	☼	0.6	30
Aluminum	840		777		mg/Kg	☼	8	30
Antimony	3.5	U	3.5	U	mg/Kg	☼	NC	30
Barium	2.2	J	2.15	J	mg/Kg	☼	3	30
Beryllium	0.036	J	0.0346	J	mg/Kg	☼	5	30
Cadmium	0.29	U	0.29	U	mg/Kg	☼	NC	30
Chromium	2.1		1.99		mg/Kg	☼	5	30
Cobalt	0.66	J	0.556	J	mg/Kg	☼	17	30
Iron	2100		1960		mg/Kg	☼	8	30
Lead	0.67		0.630		mg/Kg	☼	6	30
Selenium	0.59	U	0.59	U	mg/Kg	☼	NC	30
Thallium	2.1	U	2.1	U	mg/Kg	☼	NC	30
Lithium	1.8	J	1.63	J	mg/Kg	☼	10	30
Molybdenum	2.3	U	2.3	U	mg/Kg	☼	NC	30

Lab Sample ID: MB 140-31643/8-A
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: Method Blank
Prep Type: Step 7
Prep Batch: 31643

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.13	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Aluminum	10	U	10	1.6	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Antimony	3.0	U	3.0	0.14	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Barium	2.5	U	2.5	0.12	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Beryllium	0.25	U	0.25	0.0075	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Cadmium	0.25	U	0.25	0.011	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Chromium	0.50	U	0.50	0.070	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Cobalt	2.5	U	2.5	0.15	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Iron	5.0	U	5.0	4.1	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Lead	0.50	U	0.50	0.11	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Selenium	0.50	U	0.50	0.17	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Thallium	1.8	U	1.8	0.18	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Lithium	2.5	U	2.5	0.15	mg/Kg		07/15/19 08:00	07/30/19 11:37	1
Molybdenum	2.0	U	2.0	0.082	mg/Kg		07/15/19 08:00	07/30/19 11:37	1

Lab Sample ID: LCS 140-31643/9-A
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: Lab Control Sample
Prep Type: Step 7
Prep Batch: 31643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.47		mg/Kg		109	75 - 125
Aluminum	100	103		mg/Kg		103	75 - 125
Antimony	25.0	26.5		mg/Kg		106	75 - 125
Barium	5.00	5.19		mg/Kg		104	75 - 125
Beryllium	2.50	2.64		mg/Kg		105	75 - 125
Cadmium	2.50	2.69		mg/Kg		108	75 - 125
Chromium	10.0	10.8		mg/Kg		108	75 - 125
Cobalt	5.00	5.30		mg/Kg		106	75 - 125
Iron	50.0	53.9		mg/Kg		108	75 - 125

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: LCS 140-31643/9-A
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: Lab Control Sample
Prep Type: Step 7
Prep Batch: 31643

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			5.00	5.15		mg/Kg		103	75 - 125		
Selenium			7.50	7.52		mg/Kg		100	75 - 125		
Thallium			20.0	21.4		mg/Kg		107	75 - 125		
Lithium			5.00	5.27		mg/Kg		105	75 - 125		
Molybdenum			25.0	27.2		mg/Kg		109	75 - 125		

Lab Sample ID: LCSD 140-31643/10-A
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 7
Prep Batch: 31643

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			5.00	5.37		mg/Kg		107	75 - 125	2	30
Aluminum			100	101		mg/Kg		101	75 - 125	2	30
Antimony			25.0	26.2		mg/Kg		105	75 - 125	1	30
Barium			5.00	5.14		mg/Kg		103	75 - 125	1	30
Beryllium			2.50	2.60		mg/Kg		104	75 - 125	1	30
Cadmium			2.50	2.66		mg/Kg		106	75 - 125	1	30
Chromium			10.0	10.7		mg/Kg		107	75 - 125	1	30
Cobalt			5.00	5.25		mg/Kg		105	75 - 125	1	30
Iron			50.0	53.6		mg/Kg		107	75 - 125	1	30
Lead			5.00	5.06		mg/Kg		101	75 - 125	2	30
Selenium			7.50	7.45		mg/Kg		99	75 - 125	1	30
Thallium			20.0	21.3		mg/Kg		106	75 - 125	1	30
Lithium			5.00	5.19		mg/Kg		104	75 - 125	2	30
Molybdenum			25.0	26.9		mg/Kg		107	75 - 125	1	30

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: OW-9-10-12
Prep Type: Step 7
Prep Batch: 31643

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	0.39	J		0.350	J	mg/Kg	☼			10	30
Antimony	3.5	U		3.5	U	mg/Kg	☼			NC	30
Beryllium	0.39			0.356		mg/Kg	☼			10	30
Cadmium	0.29	U		0.29	U	mg/Kg	☼			NC	30
Chromium	7.3			6.86		mg/Kg	☼			6	30
Cobalt	0.69	J		0.689	J	mg/Kg	☼			0.4	30
Iron	2400			2230		mg/Kg	☼			8	30
Lead	5.3			5.47		mg/Kg	☼			3	30
Selenium	0.59	U		0.59	U	mg/Kg	☼			NC	30
Thallium	0.62	J		0.696	J	mg/Kg	☼			12	30
Lithium	3.4			3.25		mg/Kg	☼			5	30
Molybdenum	2.3	U		2.3	U	mg/Kg	☼			NC	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 32217

Client Sample ID: OW-9-10-12
Prep Type: Step 7
Prep Batch: 31643

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	23000		21900		mg/Kg	☼	5	30
Barium	350		318		mg/Kg	☼	11	30

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-478309/1-A
Matrix: Solid
Analysis Batch: 478979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9.8	U	9.8	4.3	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Antimony	15	U	15	0.39	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Arsenic	2.0	U	2.0	0.39	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Barium	0.49	U	0.49	0.11	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Beryllium	0.20	U	0.20	0.027	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Boron	0.292	J	2.0	0.19	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Cadmium	0.20	U	0.20	0.029	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Chromium	0.49	U	0.49	0.20	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Cobalt	0.49	U	0.49	0.049	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Iron	5.90	J	9.8	3.4	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Lead	0.98	U	0.98	0.23	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Lithium	4.9	U	4.9	0.49	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Molybdenum	0.420	J	0.98	0.13	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Selenium	3.9	U	3.9	0.39	mg/Kg		06/18/19 10:02	06/20/19 22:00	1
Thallium	5.9	U	5.9	0.29	mg/Kg		06/18/19 10:02	06/20/19 22:00	1

Lab Sample ID: LCS 480-478309/16-A
Matrix: Solid
Analysis Batch: 478979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478309

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	39.8	37.9		mg/Kg		95	80 - 120

Lab Sample ID: LCSSRM 480-478309/2-A
Matrix: Solid
Analysis Batch: 478979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478309

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10100	8850		mg/Kg		87.6	41.6 - 123.8
Antimony	173	68.6		mg/Kg		39.6	10.0 - 134.1
Arsenic	221	183		mg/Kg		82.9	63.8 - 119.0
Barium	288	247		mg/Kg		85.8	70.5 - 117.4
Beryllium	102	88.6		mg/Kg		86.8	71.2 - 118.6
Boron	185	144		mg/Kg		77.8	49.4 - 115.1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-478309/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 478979
Prep Batch: 478309

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	153	131		mg/Kg		85.8	68.6 - 115.0
Chromium	179	150		mg/Kg		83.6	65.4 - 121.2
Cobalt	182	183		mg/Kg		100.4	71.4 - 119.2
Iron	15000	13300		mg/Kg		88.5	35.7 - 160.7
Lead	74.5	80.1		mg/Kg		107.5	67.8 - 130.3
Molybdenum	116	99.1		mg/Kg		85.5	62.5 - 115.5
Selenium	54.4	44.3		mg/Kg		81.4	53.3 - 130.0
Thallium	64.7	64.8		mg/Kg		100.2	55.0 - 126.0

Lab Sample ID: 490-175740-1 MS
Client Sample ID: OW-9-10-12
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 478979
Prep Batch: 478309

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2200	F1	2350	6170	F1	mg/Kg	☼	168	75 - 125
Antimony	17	U	47.1	46.5		mg/Kg	☼	99	75 - 125
Arsenic	1.7	J	47.1	46.4		mg/Kg	☼	95	75 - 125
Barium	13		47.1	66.6		mg/Kg	☼	115	75 - 125
Beryllium	0.12	J	47.1	44.5		mg/Kg	☼	94	75 - 125
Boron	7.4	B	47.1	54.8		mg/Kg	☼	101	75 - 125
Cadmium	0.11	J	47.1	45.3		mg/Kg	☼	96	75 - 125
Chromium	4.4		47.1	48.2		mg/Kg	☼	93	75 - 125
Cobalt	1.8		47.1	45.9		mg/Kg	☼	94	75 - 125
Iron	4400	B	2350	6850		mg/Kg	☼	103	75 - 125
Lead	3.1		47.1	48.0		mg/Kg	☼	95	75 - 125
Lithium	3.6	J	47.1	46.9		mg/Kg	☼	92	75 - 125
Molybdenum	0.24	J B	47.1	45.5		mg/Kg	☼	96	75 - 125
Selenium	4.6	U	47.1	44.0		mg/Kg	☼	94	75 - 125
Thallium	6.9	U	47.1	44.9		mg/Kg	☼	95	75 - 125

Lab Sample ID: 490-175740-1 MSD
Client Sample ID: OW-9-10-12
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 478979
Prep Batch: 478309

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	2200	F1	2310	5890	F1	mg/Kg	☼	160	75 - 125	5	20
Antimony	17	U	46.2	46.5		mg/Kg	☼	101	75 - 125	0	20
Arsenic	1.7	J	46.2	47.4		mg/Kg	☼	99	75 - 125	2	20
Barium	13		46.2	63.3		mg/Kg	☼	110	75 - 125	5	20
Beryllium	0.12	J	46.2	45.2		mg/Kg	☼	98	75 - 125	2	20
Boron	7.4	B	46.2	54.9		mg/Kg	☼	103	75 - 125	0	20
Cadmium	0.11	J	46.2	46.1		mg/Kg	☼	100	75 - 125	2	20
Chromium	4.4		46.2	48.7		mg/Kg	☼	96	75 - 125	1	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 490-175740-1 MSD
Matrix: Solid
Analysis Batch: 478979

Client Sample ID: OW-9-10-12
Prep Type: Total/NA
Prep Batch: 478309

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	1.8		46.2	46.7		mg/Kg	☼	97	75 - 125	2	20
Iron	4400	B	2310	6840		mg/Kg	☼	105	75 - 125	0	20
Lead	3.1		46.2	48.6		mg/Kg	☼	99	75 - 125	1	20
Lithium	3.6	J	46.2	47.9		mg/Kg	☼	96	75 - 125	2	20
Molybdenum	0.24	J B	46.2	46.2		mg/Kg	☼	100	75 - 125	2	20
Selenium	4.6	U	46.2	44.4		mg/Kg	☼	96	75 - 125	1	20
Thallium	6.9	U	46.2	45.6		mg/Kg	☼	99	75 - 125	2	20

Method: 7470A - SEP Mercury (CVAA) - Total

Lab Sample ID: MB 140-30867/8-B
Matrix: Solid
Analysis Batch: 30935

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30867

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.10	U	0.10	0.040	mg/Kg		06/17/19 08:00	06/18/19 13:16	1

Lab Sample ID: LCS 140-30867/9-B
Matrix: Solid
Analysis Batch: 30935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30867

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	2.50	2.47		mg/Kg		99	75 - 125

Lab Sample ID: LCSD 140-30867/10-B
Matrix: Solid
Analysis Batch: 30935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30867

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	2.50	2.53		mg/Kg		101	75 - 125	2	30

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 30935

Client Sample ID: OW-9-10-12
Prep Type: Total/NA
Prep Batch: 30867

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hg	0.12	U	0.12	U	mg/Kg	☼	NC	30

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-477908/1-A
Matrix: Solid
Analysis Batch: 478661

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 477908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	U	0.020	0.0082	mg/Kg		06/19/19 13:22	06/19/19 14:58	1

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCSSRM 480-477908/2-A ^5
Matrix: Solid
Analysis Batch: 478661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 477908

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			4.85	3.22		mg/Kg		66.5	46.0 - 107.0		

Method: Moisture - Percent Moisture

Lab Sample ID: 490-175740-1 DU
Matrix: Solid
Analysis Batch: 30901

Client Sample ID: OW-9-10-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	14.7			13.9		%				5	

Metals

Prep Batch: 30867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Total/NA	Solid	Total	
490-175740-2	OW-9-18-20	Total/NA	Solid	Total	
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	Total	
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	Total	
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	Total	
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	Total	
MB 140-30867/8-A	Method Blank	Total/NA	Solid	Total	
MB 140-30867/8-B	Method Blank	Total/NA	Solid	Total	
LCS 140-30867/9-A	Lab Control Sample	Total/NA	Solid	Total	
LCS 140-30867/9-B	Lab Control Sample	Total/NA	Solid	Total	
LCSD 140-30867/10-A	Lab Control Sample Dup	Total/NA	Solid	Total	
LCSD 140-30867/10-B	Lab Control Sample Dup	Total/NA	Solid	Total	
490-175740-1 DU	OW-9-10-12	Total/NA	Solid	Total	

Prep Batch: 30885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Total/NA	Solid	7470A	30867
490-175740-2	OW-9-18-20	Total/NA	Solid	7470A	30867
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	7470A	30867
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	7470A	30867
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	7470A	30867
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	7470A	30867
MB 140-30867/8-B	Method Blank	Total/NA	Solid	7470A	30867
LCS 140-30867/9-B	Lab Control Sample	Total/NA	Solid	7470A	30867
LCSD 140-30867/10-B	Lab Control Sample Dup	Total/NA	Solid	7470A	30867
490-175740-1 DU	OW-9-10-12	Total/NA	Solid	7470A	30867

Analysis Batch: 30935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Total/NA	Solid	7470A	30885
490-175740-2	OW-9-18-20	Total/NA	Solid	7470A	30885
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	7470A	30885
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	7470A	30885
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	7470A	30885
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	7470A	30885
MB 140-30867/8-B	Method Blank	Total/NA	Solid	7470A	30885
LCS 140-30867/9-B	Lab Control Sample	Total/NA	Solid	7470A	30885
LCSD 140-30867/10-B	Lab Control Sample Dup	Total/NA	Solid	7470A	30885
490-175740-1 DU	OW-9-10-12	Total/NA	Solid	7470A	30885

SEP Batch: 31149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 1	Solid	Exchangeable	
490-175740-2	OW-9-18-20	Step 1	Solid	Exchangeable	
490-175740-3	GAMW-58B-15-17ft	Step 1	Solid	Exchangeable	
490-175740-4	GAMW-42C-10-12ft	Step 1	Solid	Exchangeable	
490-175740-5	GAMW-57B-10-12ft	Step 1	Solid	Exchangeable	
490-175740-6	GAMW-42C-30-32ft	Step 1	Solid	Exchangeable	
MB 140-31149/8-B ^4	Method Blank	Step 1	Solid	Exchangeable	
LCS 140-31149/9-B ^5	Lab Control Sample	Step 1	Solid	Exchangeable	
LCSD 140-31149/10-B ^5	Lab Control Sample Dup	Step 1	Solid	Exchangeable	

Metals (Continued)

SEP Batch: 31149 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1 DU	OW-9-10-12	Step 1	Solid	Exchangeable	

Prep Batch: 31251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 1	Solid	3010A	31149
490-175740-2	OW-9-18-20	Step 1	Solid	3010A	31149
490-175740-3	GAMW-58B-15-17ft	Step 1	Solid	3010A	31149
490-175740-4	GAMW-42C-10-12ft	Step 1	Solid	3010A	31149
490-175740-5	GAMW-57B-10-12ft	Step 1	Solid	3010A	31149
490-175740-6	GAMW-42C-30-32ft	Step 1	Solid	3010A	31149
MB 140-31149/8-B ^4	Method Blank	Step 1	Solid	3010A	31149
LCS 140-31149/9-B ^5	Lab Control Sample	Step 1	Solid	3010A	31149
LCSD 140-31149/10-B ^5	Lab Control Sample Dup	Step 1	Solid	3010A	31149
490-175740-1 DU	OW-9-10-12	Step 1	Solid	3010A	31149

SEP Batch: 31342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 2	Solid	Carbonate	
490-175740-2	OW-9-18-20	Step 2	Solid	Carbonate	
490-175740-3	GAMW-58B-15-17ft	Step 2	Solid	Carbonate	
490-175740-4	GAMW-42C-10-12ft	Step 2	Solid	Carbonate	
490-175740-5	GAMW-57B-10-12ft	Step 2	Solid	Carbonate	
490-175740-6	GAMW-42C-30-32ft	Step 2	Solid	Carbonate	
MB 140-31342/8-B ^3	Method Blank	Step 2	Solid	Carbonate	
LCS 140-31342/9-B ^5	Lab Control Sample	Step 2	Solid	Carbonate	
LCSD 140-31342/10-B ^5	Lab Control Sample Dup	Step 2	Solid	Carbonate	
490-175740-1 DU	OW-9-10-12	Step 2	Solid	Carbonate	

Prep Batch: 31359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 2	Solid	3010A	31342
490-175740-2	OW-9-18-20	Step 2	Solid	3010A	31342
490-175740-3	GAMW-58B-15-17ft	Step 2	Solid	3010A	31342
490-175740-4	GAMW-42C-10-12ft	Step 2	Solid	3010A	31342
490-175740-5	GAMW-57B-10-12ft	Step 2	Solid	3010A	31342
490-175740-6	GAMW-42C-30-32ft	Step 2	Solid	3010A	31342
MB 140-31342/8-B ^3	Method Blank	Step 2	Solid	3010A	31342
LCS 140-31342/9-B ^5	Lab Control Sample	Step 2	Solid	3010A	31342
LCSD 140-31342/10-B ^5	Lab Control Sample Dup	Step 2	Solid	3010A	31342
490-175740-1 DU	OW-9-10-12	Step 2	Solid	3010A	31342

SEP Batch: 31437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 3	Solid	Non-Crystalline	
490-175740-2	OW-9-18-20	Step 3	Solid	Non-Crystalline	
490-175740-3	GAMW-58B-15-17ft	Step 3	Solid	Non-Crystalline	
490-175740-4	GAMW-42C-10-12ft	Step 3	Solid	Non-Crystalline	
490-175740-5	GAMW-57B-10-12ft	Step 3	Solid	Non-Crystalline	
490-175740-6	GAMW-42C-30-32ft	Step 3	Solid	Non-Crystalline	
MB 140-31437/8-B	Method Blank	Step 3	Solid	Non-Crystalline	
LCS 140-31437/9-B	Lab Control Sample	Step 3	Solid	Non-Crystalline	

Metals (Continued)

SEP Batch: 31437 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 140-31437/10-B	Lab Control Sample Dup	Step 3	Solid	Non-Crystalline	
490-175740-1 DU	OW-9-10-12	Step 3	Solid	Non-Crystalline	

Prep Batch: 31467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 3	Solid	3010A	31437
490-175740-2	OW-9-18-20	Step 3	Solid	3010A	31437
490-175740-3	GAMW-58B-15-17ft	Step 3	Solid	3010A	31437
490-175740-4	GAMW-42C-10-12ft	Step 3	Solid	3010A	31437
490-175740-5	GAMW-57B-10-12ft	Step 3	Solid	3010A	31437
490-175740-6	GAMW-42C-30-32ft	Step 3	Solid	3010A	31437
MB 140-31437/8-B	Method Blank	Step 3	Solid	3010A	31437
LCS 140-31437/9-B	Lab Control Sample	Step 3	Solid	3010A	31437
LCSD 140-31437/10-B	Lab Control Sample Dup	Step 3	Solid	3010A	31437
490-175740-1 DU	OW-9-10-12	Step 3	Solid	3010A	31437

SEP Batch: 31468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 4	Solid	Metal Hydroxide	
490-175740-2	OW-9-18-20	Step 4	Solid	Metal Hydroxide	
490-175740-3	GAMW-58B-15-17ft	Step 4	Solid	Metal Hydroxide	
490-175740-4	GAMW-42C-10-12ft	Step 4	Solid	Metal Hydroxide	
490-175740-5	GAMW-57B-10-12ft	Step 4	Solid	Metal Hydroxide	
490-175740-6	GAMW-42C-30-32ft	Step 4	Solid	Metal Hydroxide	
MB 140-31468/8-B	Method Blank	Step 4	Solid	Metal Hydroxide	
LCS 140-31468/9-B	Lab Control Sample	Step 4	Solid	Metal Hydroxide	
LCSD 140-31468/10-B	Lab Control Sample Dup	Step 4	Solid	Metal Hydroxide	
490-175740-1 DU	OW-9-10-12	Step 4	Solid	Metal Hydroxide	

Prep Batch: 31501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 4	Solid	3010A	31468
490-175740-2	OW-9-18-20	Step 4	Solid	3010A	31468
490-175740-3	GAMW-58B-15-17ft	Step 4	Solid	3010A	31468
490-175740-4	GAMW-42C-10-12ft	Step 4	Solid	3010A	31468
490-175740-5	GAMW-57B-10-12ft	Step 4	Solid	3010A	31468
490-175740-6	GAMW-42C-30-32ft	Step 4	Solid	3010A	31468
MB 140-31468/8-B	Method Blank	Step 4	Solid	3010A	31468
LCS 140-31468/9-B	Lab Control Sample	Step 4	Solid	3010A	31468
LCSD 140-31468/10-B	Lab Control Sample Dup	Step 4	Solid	3010A	31468
490-175740-1 DU	OW-9-10-12	Step 4	Solid	3010A	31468

SEP Batch: 31503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 5	Solid	Organic-Bound	
490-175740-2	OW-9-18-20	Step 5	Solid	Organic-Bound	
490-175740-3	GAMW-58B-15-17ft	Step 5	Solid	Organic-Bound	
490-175740-4	GAMW-42C-10-12ft	Step 5	Solid	Organic-Bound	
490-175740-5	GAMW-57B-10-12ft	Step 5	Solid	Organic-Bound	
490-175740-6	GAMW-42C-30-32ft	Step 5	Solid	Organic-Bound	
MB 140-31503/8-B ^5	Method Blank	Step 5	Solid	Organic-Bound	

Metals (Continued)

SEP Batch: 31503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 140-31503/9-B ^5	Lab Control Sample	Step 5	Solid	Organic-Bound	
LCSD 140-31503/10-B ^5	Lab Control Sample Dup	Step 5	Solid	Organic-Bound	
490-175740-1 DU	OW-9-10-12	Step 5	Solid	Organic-Bound	

Prep Batch: 31613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 5	Solid	3010A	31503
490-175740-2	OW-9-18-20	Step 5	Solid	3010A	31503
490-175740-3	GAMW-58B-15-17ft	Step 5	Solid	3010A	31503
490-175740-4	GAMW-42C-10-12ft	Step 5	Solid	3010A	31503
490-175740-5	GAMW-57B-10-12ft	Step 5	Solid	3010A	31503
490-175740-6	GAMW-42C-30-32ft	Step 5	Solid	3010A	31503
MB 140-31503/8-B ^5	Method Blank	Step 5	Solid	3010A	31503
LCS 140-31503/9-B ^5	Lab Control Sample	Step 5	Solid	3010A	31503
LCSD 140-31503/10-B ^5	Lab Control Sample Dup	Step 5	Solid	3010A	31503
490-175740-1 DU	OW-9-10-12	Step 5	Solid	3010A	31503

SEP Batch: 31614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 6	Solid	Acid/Sulfide	
490-175740-2	OW-9-18-20	Step 6	Solid	Acid/Sulfide	
490-175740-3	GAMW-58B-15-17ft	Step 6	Solid	Acid/Sulfide	
490-175740-4	GAMW-42C-10-12ft	Step 6	Solid	Acid/Sulfide	
490-175740-5	GAMW-57B-10-12ft	Step 6	Solid	Acid/Sulfide	
490-175740-6	GAMW-42C-30-32ft	Step 6	Solid	Acid/Sulfide	
MB 140-31614/8-A	Method Blank	Step 6	Solid	Acid/Sulfide	
LCS 140-31614/9-A	Lab Control Sample	Step 6	Solid	Acid/Sulfide	
LCSD 140-31614/10-A	Lab Control Sample Dup	Step 6	Solid	Acid/Sulfide	
490-175740-1 DU	OW-9-10-12	Step 6	Solid	Acid/Sulfide	

Prep Batch: 31643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 7	Solid	Residual	
490-175740-2	OW-9-18-20	Step 7	Solid	Residual	
490-175740-3	GAMW-58B-15-17ft	Step 7	Solid	Residual	
490-175740-4	GAMW-42C-10-12ft	Step 7	Solid	Residual	
490-175740-5	GAMW-57B-10-12ft	Step 7	Solid	Residual	
490-175740-6	GAMW-42C-30-32ft	Step 7	Solid	Residual	
MB 140-31643/8-A	Method Blank	Step 7	Solid	Residual	
LCS 140-31643/9-A	Lab Control Sample	Step 7	Solid	Residual	
LCSD 140-31643/10-A	Lab Control Sample Dup	Step 7	Solid	Residual	
490-175740-1 DU	OW-9-10-12	Step 7	Solid	Residual	

Analysis Batch: 31651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 1	Solid	6010B SEP	31251
490-175740-1	OW-9-10-12	Step 2	Solid	6010B SEP	31359
490-175740-2	OW-9-18-20	Step 1	Solid	6010B SEP	31251
490-175740-2	OW-9-18-20	Step 2	Solid	6010B SEP	31359
490-175740-3	GAMW-58B-15-17ft	Step 1	Solid	6010B SEP	31251
490-175740-3	GAMW-58B-15-17ft	Step 2	Solid	6010B SEP	31359

Metals (Continued)

Analysis Batch: 31651 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-4	GAMW-42C-10-12ft	Step 1	Solid	6010B SEP	31251
490-175740-4	GAMW-42C-10-12ft	Step 2	Solid	6010B SEP	31359
490-175740-5	GAMW-57B-10-12ft	Step 1	Solid	6010B SEP	31251
490-175740-5	GAMW-57B-10-12ft	Step 2	Solid	6010B SEP	31359
490-175740-6	GAMW-42C-30-32ft	Step 1	Solid	6010B SEP	31251
490-175740-6	GAMW-42C-30-32ft	Step 2	Solid	6010B SEP	31359
MB 140-31149/8-B ^4	Method Blank	Step 1	Solid	6010B SEP	31251
MB 140-31342/8-B ^3	Method Blank	Step 2	Solid	6010B SEP	31359
LCS 140-31149/9-B ^5	Lab Control Sample	Step 1	Solid	6010B SEP	31251
LCS 140-31342/9-B ^5	Lab Control Sample	Step 2	Solid	6010B SEP	31359
LCSD 140-31149/10-B ^5	Lab Control Sample Dup	Step 1	Solid	6010B SEP	31251
LCSD 140-31342/10-B ^5	Lab Control Sample Dup	Step 2	Solid	6010B SEP	31359
490-175740-1 DU	OW-9-10-12	Step 1	Solid	6010B SEP	31251
490-175740-1 DU	OW-9-10-12	Step 2	Solid	6010B SEP	31359

Analysis Batch: 32164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 3	Solid	6010B SEP	31467
490-175740-1	OW-9-10-12	Step 4	Solid	6010B SEP	31501
490-175740-1	OW-9-10-12	Step 5	Solid	6010B SEP	31613
490-175740-1	OW-9-10-12	Step 6	Solid	6010B SEP	31614
490-175740-2	OW-9-18-20	Step 3	Solid	6010B SEP	31467
490-175740-2	OW-9-18-20	Step 4	Solid	6010B SEP	31501
490-175740-2	OW-9-18-20	Step 5	Solid	6010B SEP	31613
490-175740-2	OW-9-18-20	Step 6	Solid	6010B SEP	31614
490-175740-3	GAMW-58B-15-17ft	Step 3	Solid	6010B SEP	31467
490-175740-3	GAMW-58B-15-17ft	Step 4	Solid	6010B SEP	31501
490-175740-3	GAMW-58B-15-17ft	Step 5	Solid	6010B SEP	31613
490-175740-3	GAMW-58B-15-17ft	Step 6	Solid	6010B SEP	31614
490-175740-4	GAMW-42C-10-12ft	Step 3	Solid	6010B SEP	31467
490-175740-4	GAMW-42C-10-12ft	Step 4	Solid	6010B SEP	31501
490-175740-4	GAMW-42C-10-12ft	Step 5	Solid	6010B SEP	31613
490-175740-4	GAMW-42C-10-12ft	Step 6	Solid	6010B SEP	31614
490-175740-5	GAMW-57B-10-12ft	Step 3	Solid	6010B SEP	31467
490-175740-5	GAMW-57B-10-12ft	Step 4	Solid	6010B SEP	31501
490-175740-5	GAMW-57B-10-12ft	Step 5	Solid	6010B SEP	31613
490-175740-5	GAMW-57B-10-12ft	Step 6	Solid	6010B SEP	31614
490-175740-6	GAMW-42C-30-32ft	Step 3	Solid	6010B SEP	31467
490-175740-6	GAMW-42C-30-32ft	Step 4	Solid	6010B SEP	31501
490-175740-6	GAMW-42C-30-32ft	Step 5	Solid	6010B SEP	31613
490-175740-6	GAMW-42C-30-32ft	Step 6	Solid	6010B SEP	31614
MB 140-31437/8-B	Method Blank	Step 3	Solid	6010B SEP	31467
MB 140-31468/8-B	Method Blank	Step 4	Solid	6010B SEP	31501
MB 140-31503/8-B ^5	Method Blank	Step 5	Solid	6010B SEP	31613
MB 140-31614/8-A	Method Blank	Step 6	Solid	6010B SEP	31614
LCS 140-31437/9-B	Lab Control Sample	Step 3	Solid	6010B SEP	31467
LCS 140-31468/9-B	Lab Control Sample	Step 4	Solid	6010B SEP	31501
LCS 140-31503/9-B ^5	Lab Control Sample	Step 5	Solid	6010B SEP	31613
LCS 140-31614/9-A	Lab Control Sample	Step 6	Solid	6010B SEP	31614
LCSD 140-31437/10-B	Lab Control Sample Dup	Step 3	Solid	6010B SEP	31467
LCSD 140-31468/10-B	Lab Control Sample Dup	Step 4	Solid	6010B SEP	31501

Metals (Continued)

Analysis Batch: 32164 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 140-31503/10-B ^5	Lab Control Sample Dup	Step 5	Solid	6010B SEP	31613
LCSD 140-31614/10-A	Lab Control Sample Dup	Step 6	Solid	6010B SEP	31614
490-175740-1 DU	OW-9-10-12	Step 3	Solid	6010B SEP	31467
490-175740-1 DU	OW-9-10-12	Step 4	Solid	6010B SEP	31501
490-175740-1 DU	OW-9-10-12	Step 5	Solid	6010B SEP	31613
490-175740-1 DU	OW-9-10-12	Step 6	Solid	6010B SEP	31614

Analysis Batch: 32217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Step 7	Solid	6010B SEP	31643
490-175740-1	OW-9-10-12	Step 7	Solid	6010B SEP	31643
490-175740-1	OW-9-10-12	Total/NA	Solid	6010B	30867
490-175740-1	OW-9-10-12	Total/NA	Solid	6010B	30867
490-175740-2	OW-9-18-20	Step 7	Solid	6010B SEP	31643
490-175740-2	OW-9-18-20	Step 7	Solid	6010B SEP	31643
490-175740-2	OW-9-18-20	Total/NA	Solid	6010B	30867
490-175740-2	OW-9-18-20	Total/NA	Solid	6010B	30867
490-175740-3	GAMW-58B-15-17ft	Step 7	Solid	6010B SEP	31643
490-175740-3	GAMW-58B-15-17ft	Step 7	Solid	6010B SEP	31643
490-175740-3	GAMW-58B-15-17ft	Step 7	Solid	6010B SEP	31643
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	6010B	30867
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	6010B	30867
490-175740-4	GAMW-42C-10-12ft	Step 7	Solid	6010B SEP	31643
490-175740-4	GAMW-42C-10-12ft	Step 7	Solid	6010B SEP	31643
490-175740-4	GAMW-42C-10-12ft	Step 7	Solid	6010B SEP	31643
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	6010B	30867
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	6010B	30867
490-175740-5	GAMW-57B-10-12ft	Step 7	Solid	6010B SEP	31643
490-175740-5	GAMW-57B-10-12ft	Step 7	Solid	6010B SEP	31643
490-175740-5	GAMW-57B-10-12ft	Step 7	Solid	6010B SEP	31643
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	6010B	30867
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	6010B	30867
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	6010B	30867
490-175740-6	GAMW-42C-30-32ft	Step 7	Solid	6010B SEP	31643
490-175740-6	GAMW-42C-30-32ft	Step 7	Solid	6010B SEP	31643
490-175740-6	GAMW-42C-30-32ft	Step 7	Solid	6010B SEP	31643
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	6010B	30867
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	6010B	30867
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	6010B	30867
MB 140-30867/8-A	Method Blank	Total/NA	Solid	6010B	30867
MB 140-31643/8-A	Method Blank	Step 7	Solid	6010B SEP	31643
LCS 140-30867/9-A	Lab Control Sample	Total/NA	Solid	6010B	30867
LCS 140-31643/9-A	Lab Control Sample	Step 7	Solid	6010B SEP	31643
LCSD 140-30867/10-A	Lab Control Sample Dup	Total/NA	Solid	6010B	30867
LCSD 140-31643/10-A	Lab Control Sample Dup	Step 7	Solid	6010B SEP	31643
490-175740-1 DU	OW-9-10-12	Step 7	Solid	6010B SEP	31643
490-175740-1 DU	OW-9-10-12	Step 7	Solid	6010B SEP	31643
490-175740-1 DU	OW-9-10-12	Total/NA	Solid	6010B	30867
490-175740-1 DU	OW-9-10-12	Total/NA	Solid	6010B	30867

Metals

Analysis Batch: 32281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Sum of Steps 1-7	Solid	6010B SEP	
490-175740-2	OW-9-18-20	Sum of Steps 1-7	Solid	6010B SEP	
490-175740-3	GAMW-58B-15-17ft	Sum of Steps 1-7	Solid	6010B SEP	
490-175740-4	GAMW-42C-10-12ft	Sum of Steps 1-7	Solid	6010B SEP	
490-175740-5	GAMW-57B-10-12ft	Sum of Steps 1-7	Solid	6010B SEP	
490-175740-6	GAMW-42C-30-32ft	Sum of Steps 1-7	Solid	6010B SEP	

Prep Batch: 477908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Total/NA	Solid	7471B	
490-175740-2	OW-9-18-20	Total/NA	Solid	7471B	
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	7471B	
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	7471B	
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	7471B	
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	7471B	
MB 480-477908/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-477908/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 478309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Total/NA	Solid	3050B	
490-175740-2	OW-9-18-20	Total/NA	Solid	3050B	
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	3050B	
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	3050B	
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	3050B	
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	3050B	
MB 480-478309/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 480-478309/16-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 480-478309/2-A	Lab Control Sample	Total/NA	Solid	3050B	
490-175740-1 MS	OW-9-10-12	Total/NA	Solid	3050B	
490-175740-1 MSD	OW-9-10-12	Total/NA	Solid	3050B	

Analysis Batch: 478661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Total/NA	Solid	7471B	477908
490-175740-2	OW-9-18-20	Total/NA	Solid	7471B	477908
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	7471B	477908
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	7471B	477908
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	7471B	477908
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	7471B	477908
MB 480-477908/1-A	Method Blank	Total/NA	Solid	7471B	477908
LCSSRM 480-477908/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	477908

Analysis Batch: 478979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Total/NA	Solid	6010C	478309
490-175740-2	OW-9-18-20	Total/NA	Solid	6010C	478309
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	6010C	478309
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	6010C	478309
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	6010C	478309
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	6010C	478309

Metals (Continued)

Analysis Batch: 478979 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-478309/1-A	Method Blank	Total/NA	Solid	6010C	478309
LCS 480-478309/16-A	Lab Control Sample	Total/NA	Solid	6010C	478309
LCSSRM 480-478309/2-A	Lab Control Sample	Total/NA	Solid	6010C	478309
490-175740-1 MS	OW-9-10-12	Total/NA	Solid	6010C	478309
490-175740-1 MSD	OW-9-10-12	Total/NA	Solid	6010C	478309

General Chemistry

Analysis Batch: 30901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-175740-1	OW-9-10-12	Total/NA	Solid	Moisture	
490-175740-2	OW-9-18-20	Total/NA	Solid	Moisture	
490-175740-3	GAMW-58B-15-17ft	Total/NA	Solid	Moisture	
490-175740-4	GAMW-42C-10-12ft	Total/NA	Solid	Moisture	
490-175740-5	GAMW-57B-10-12ft	Total/NA	Solid	Moisture	
490-175740-6	GAMW-42C-30-32ft	Total/NA	Solid	Moisture	
490-175740-1 DU	OW-9-10-12	Total/NA	Solid	Moisture	

Client Sample ID: OW-9-10-12
Lab Sample ID: 490-175740-1
Date Collected: 06/05/19 13:00
Matrix: Solid
Date Received: 06/11/19 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			32281	08/01/19 13:44	DKW	TAL KNX
Total/NA	Analysis	Moisture		1			30901	06/17/19 18:17	KW1	TAL KNX

Client Sample ID: OW-9-10-12
Lab Sample ID: 490-175740-1
Date Collected: 06/05/19 13:00
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			32217	07/30/19 14:02	KNC	TAL KNX
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			32217	07/30/19 14:54	KNC	TAL KNX
Step 1	SEP	Exchangeable			5.000 g	25 mL	31149	06/26/19 09:51	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	31251	06/29/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			31651	07/12/19 15:12	KNC	TAL KNX
Step 2	SEP	Carbonate			5.000 g	25 mL	31342	07/02/19 09:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	31359	07/03/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			31651	07/12/19 16:19	KNC	TAL KNX
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	31437	07/08/19 07:15	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	31467	07/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			32164	07/29/19 11:37	KNC	TAL KNX
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	31468	07/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	31501	07/10/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			32164	07/29/19 12:44	KNC	TAL KNX
Step 5	SEP	Organic-Bound			5.000 g	75 mL	31503	07/10/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	31613	07/12/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			32164	07/29/19 13:51	KNC	TAL KNX
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	31614	07/12/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			32164	07/29/19 15:10	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			32217	07/30/19 12:19	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			32217	07/30/19 13:11	KNC	TAL KNX
Total/NA	Prep	3050B			0.5133 g	50 mL	478309	06/18/19 10:02	JMP	TAL BUF
Total/NA	Analysis	6010C		1			478979	06/20/19 22:08	AMH	TAL BUF
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Prep	7470A			5.0 mL	50.0 mL	30885	06/17/19 11:57	DKW	TAL KNX
Total/NA	Analysis	7470A		1			30935	06/18/19 13:23	DKW	TAL KNX
Total/NA	Prep	7471B			0.6065 g	50 mL	477908	06/19/19 13:22	BMB	TAL BUF
Total/NA	Analysis	7471B		1			478661	06/19/19 15:15	BMB	TAL BUF

Lab Chronicle

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: OW-9-18-20
Lab Sample ID: 490-175740-2
Date Collected: 06/05/19 13:10
Matrix: Solid
Date Received: 06/11/19 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			32281	08/01/19 13:44	DKW	TAL KNX
Total/NA	Analysis	Moisture		1			30901	06/17/19 18:17	KW1	TAL KNX

Client Sample ID: OW-9-18-20
Lab Sample ID: 490-175740-2
Date Collected: 06/05/19 13:10
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			32217	07/30/19 14:13	KNC	TAL KNX
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			32217	07/30/19 15:04	KNC	TAL KNX
Step 1	SEP	Exchangeable			5.000 g	25 mL	31149	06/26/19 09:51	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	31251	06/29/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			31651	07/12/19 15:22	KNC	TAL KNX
Step 2	SEP	Carbonate			5.000 g	25 mL	31342	07/02/19 09:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	31359	07/03/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			31651	07/12/19 16:30	KNC	TAL KNX
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	31437	07/08/19 07:15	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	31467	07/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			32164	07/29/19 11:48	KNC	TAL KNX
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	31468	07/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	31501	07/10/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			32164	07/29/19 12:55	KNC	TAL KNX
Step 5	SEP	Organic-Bound			5.000 g	75 mL	31503	07/10/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	31613	07/12/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			32164	07/29/19 14:02	KNC	TAL KNX
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	31614	07/12/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			32164	07/29/19 15:21	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			32217	07/30/19 12:44	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			32217	07/30/19 13:21	KNC	TAL KNX
Total/NA	Prep	3050B			0.5109 g	50 mL	478309	06/18/19 10:02	JMP	TAL BUF
Total/NA	Analysis	6010C		1			478979	06/20/19 22:27	AMH	TAL BUF
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Prep	7470A			5.0 mL	50.0 mL	30885	06/17/19 11:57	DKW	TAL KNX
Total/NA	Analysis	7470A		1			30935	06/18/19 13:28	DKW	TAL KNX
Total/NA	Prep	7471B			0.5869 g	50 mL	477908	06/19/19 13:22	BMB	TAL BUF
Total/NA	Analysis	7471B		1			478661	06/19/19 15:16	BMB	TAL BUF

Lab Chronicle

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: GAMW-58B-15-17ft
Lab Sample ID: 490-175740-3
Date Collected: 06/06/19 11:30
Matrix: Solid
Date Received: 06/11/19 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			32281	08/01/19 13:44	DKW	TAL KNX
Total/NA	Analysis	Moisture		1			30901	06/17/19 18:17	KW1	TAL KNX

Client Sample ID: GAMW-58B-15-17ft
Lab Sample ID: 490-175740-3
Date Collected: 06/06/19 11:30
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			32217	07/30/19 14:18	KNC	TAL KNX
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			32217	07/30/19 15:09	KNC	TAL KNX
Step 1	SEP	Exchangeable			5.000 g	25 mL	31149	06/26/19 09:51	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	31251	06/29/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			31651	07/12/19 15:28	KNC	TAL KNX
Step 2	SEP	Carbonate			5.000 g	25 mL	31342	07/02/19 09:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	31359	07/03/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			31651	07/12/19 16:51	KNC	TAL KNX
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	31437	07/08/19 07:15	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	31467	07/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			32164	07/29/19 11:53	KNC	TAL KNX
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	31468	07/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	31501	07/10/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			32164	07/29/19 13:00	KNC	TAL KNX
Step 5	SEP	Organic-Bound			5.000 g	75 mL	31503	07/10/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	31613	07/12/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			32164	07/29/19 14:07	KNC	TAL KNX
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	31614	07/12/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			32164	07/29/19 15:26	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			32217	07/30/19 12:50	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			32217	07/30/19 13:41	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			32217	07/30/19 15:45	KNC	TAL KNX
Total/NA	Prep	3050B			0.5118 g	50 mL	478309	06/18/19 10:02	JMP	TAL BUF
Total/NA	Analysis	6010C		1			478979	06/20/19 22:43	AMH	TAL BUF
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Prep	7470A			5.0 mL	50.0 mL	30885	06/17/19 11:57	DKW	TAL KNX
Total/NA	Analysis	7470A		1			30935	06/18/19 13:36	DKW	TAL KNX
Total/NA	Prep	7471B			0.5949 g	50 mL	477908	06/19/19 13:22	BMB	TAL BUF
Total/NA	Analysis	7471B		1			478661	06/19/19 15:18	BMB	TAL BUF

Lab Chronicle

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: GAMW-42C-10-12ft
Lab Sample ID: 490-175740-4
Date Collected: 06/07/19 15:20
Matrix: Solid
Date Received: 06/11/19 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			32281	08/01/19 13:44	DKW	TAL KNX
Total/NA	Analysis	Moisture		1			30901	06/17/19 18:17	KW1	TAL KNX

Client Sample ID: GAMW-42C-10-12ft
Lab Sample ID: 490-175740-4
Date Collected: 06/07/19 15:20
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			32217	07/30/19 14:23	KNC	TAL KNX
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			32217	07/30/19 15:14	KNC	TAL KNX
Step 1	SEP	Exchangeable			5.000 g	25 mL	31149	06/26/19 09:51	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	31251	06/29/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			31651	07/12/19 15:48	KNC	TAL KNX
Step 2	SEP	Carbonate			5.000 g	25 mL	31342	07/02/19 09:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	31359	07/03/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			31651	07/12/19 16:56	KNC	TAL KNX
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	31437	07/08/19 07:15	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	31467	07/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			32164	07/29/19 11:58	KNC	TAL KNX
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	31468	07/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	31501	07/10/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			32164	07/29/19 13:05	KNC	TAL KNX
Step 5	SEP	Organic-Bound			5.000 g	75 mL	31503	07/10/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	31613	07/12/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			32164	07/29/19 14:29	KNC	TAL KNX
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	31614	07/12/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			32164	07/29/19 15:31	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			32217	07/30/19 12:55	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			32217	07/30/19 13:46	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			32217	07/30/19 15:50	KNC	TAL KNX
Total/NA	Prep	3050B			0.5059 g	50 mL	478309	06/18/19 10:02	JMP	TAL BUF
Total/NA	Analysis	6010C		1			478979	06/20/19 22:47	AMH	TAL BUF
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Prep	7470A			5.0 mL	50.0 mL	30885	06/17/19 11:57	DKW	TAL KNX
Total/NA	Analysis	7470A		1			30935	06/18/19 13:39	DKW	TAL KNX
Total/NA	Prep	7471B			0.5862 g	50 mL	477908	06/19/19 13:22	BMB	TAL BUF
Total/NA	Analysis	7471B		1			478661	06/19/19 15:19	BMB	TAL BUF

Lab Chronicle

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: GAMW-57B-10-12ft
Lab Sample ID: 490-175740-5
Date Collected: 06/07/19 08:40
Matrix: Solid
Date Received: 06/11/19 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			32281	08/01/19 13:44	DKW	TAL KNX
Total/NA	Analysis	Moisture		1			30901	06/17/19 18:17	KW1	TAL KNX

Client Sample ID: GAMW-57B-10-12ft
Lab Sample ID: 490-175740-5
Date Collected: 06/07/19 08:40
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			32217	07/30/19 14:44	KNC	TAL KNX
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			32217	07/30/19 15:19	KNC	TAL KNX
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			32217	07/30/19 16:06	KNC	TAL KNX
Step 1	SEP	Exchangeable			5.000 g	25 mL	31149	06/26/19 09:51	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	31251	06/29/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			31651	07/12/19 15:53	KNC	TAL KNX
Step 2	SEP	Carbonate			5.000 g	25 mL	31342	07/02/19 09:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	31359	07/03/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			31651	07/12/19 17:01	KNC	TAL KNX
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	31437	07/08/19 07:15	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	31467	07/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			32164	07/29/19 12:04	KNC	TAL KNX
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	31468	07/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	31501	07/10/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			32164	07/29/19 13:25	KNC	TAL KNX
Step 5	SEP	Organic-Bound			5.000 g	75 mL	31503	07/10/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	31613	07/12/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			32164	07/29/19 14:34	KNC	TAL KNX
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	31614	07/12/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			32164	07/29/19 15:36	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			32217	07/30/19 13:00	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			32217	07/30/19 13:51	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			32217	07/30/19 15:55	KNC	TAL KNX
Total/NA	Prep	3050B			0.5111 g	50 mL	478309	06/18/19 10:02	JMP	TAL BUF
Total/NA	Analysis	6010C		1			478979	06/20/19 22:50	AMH	TAL BUF
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Prep	7470A			5.0 mL	50.0 mL	30885	06/17/19 11:57	DKW	TAL KNX
Total/NA	Analysis	7470A		1			30935	06/18/19 13:41	DKW	TAL KNX
Total/NA	Prep	7471B			0.6434 g	50 mL	477908	06/19/19 13:22	BMB	TAL BUF
Total/NA	Analysis	7471B		1			478661	06/19/19 15:20	BMB	TAL BUF

Lab Chronicle

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Client Sample ID: GAMW-42C-30-32ft
Lab Sample ID: 490-175740-6
Date Collected: 06/07/19 16:08
Matrix: Solid
Date Received: 06/11/19 08:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			32281	08/01/19 13:44	DKW	TAL KNX
Total/NA	Analysis	Moisture		1			30901	06/17/19 18:17	KW1	TAL KNX

Client Sample ID: GAMW-42C-30-32ft
Lab Sample ID: 490-175740-6
Date Collected: 06/07/19 16:08
Matrix: Solid
Date Received: 06/11/19 08:45
Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			32217	07/30/19 14:49	KNC	TAL KNX
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		10			32217	07/30/19 15:24	KNC	TAL KNX
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			32217	07/30/19 16:11	KNC	TAL KNX
Step 1	SEP	Exchangeable			5.000 g	25 mL	31149	06/26/19 09:51	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	31251	06/29/19 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			31651	07/12/19 15:58	KNC	TAL KNX
Step 2	SEP	Carbonate			5.000 g	25 mL	31342	07/02/19 09:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	31359	07/03/19 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			31651	07/12/19 17:07	KNC	TAL KNX
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	31437	07/08/19 07:15	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	31467	07/09/19 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			32164	07/29/19 12:24	KNC	TAL KNX
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	31468	07/09/19 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	31501	07/10/19 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			32164	07/29/19 13:30	KNC	TAL KNX
Step 5	SEP	Organic-Bound			5.000 g	75 mL	31503	07/10/19 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	31613	07/12/19 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			32164	07/29/19 14:40	KNC	TAL KNX
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	31614	07/12/19 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			32164	07/29/19 15:57	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			32217	07/30/19 13:05	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		10			32217	07/30/19 13:56	KNC	TAL KNX
Step 7	Prep	Residual			1.000 g	50 mL	31643	07/15/19 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			32217	07/30/19 16:00	KNC	TAL KNX
Total/NA	Prep	3050B			0.5070 g	50 mL	478309	06/18/19 10:02	JMP	TAL BUF
Total/NA	Analysis	6010C		1			478979	06/20/19 22:54	AMH	TAL BUF
Total/NA	Prep	Total			1.000 g	50 mL	30867	06/17/19 08:00	KNC	TAL KNX
Total/NA	Prep	7470A			5.0 mL	50.0 mL	30885	06/17/19 11:57	DKW	TAL KNX
Total/NA	Analysis	7470A		1			30935	06/18/19 13:44	DKW	TAL KNX
Total/NA	Prep	7471B			0.6099 g	50 mL	477908	06/19/19 13:22	BMB	TAL BUF
Total/NA	Analysis	7471B		1			478661	06/19/19 15:21	BMB	TAL BUF

Lab Chronicle

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Method	Method Description	Protocol	Laboratory
6010B	SEP Metals (ICP) - Total	SW846	TAL KNX
6010B SEP	SEP Metals (ICP)	SW846	TAL KNX
6010C	Metals (ICP)	SW846	TAL BUF
7470A	SEP Mercury (CVAA) - Total	SW846	TAL KNX
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL KNX
3010A	Preparation, Total Metals	SW846	TAL KNX
3050B	Preparation, Metals	SW846	TAL BUF
7470A	Preparation, Mercury	SW846	TAL KNX
7471B	Preparation, Mercury	SW846	TAL BUF
Acid/Sulfide	Sequential Extraction Procedure, Acid/Sulfide Fraction	TAL-KNOX	TAL KNX
Carbonate	Sequential Extraction Procedure, Carbonate Fraction	TAL-KNOX	TAL KNX
Exchangeable	Sequential Extraction Procedure, Exchangeable Fraction	TAL-KNOX	TAL KNX
Metal Hydroxide	Sequential Extraction Procedure, Metal Hydroxide Fraction	TAL-KNOX	TAL KNX
Non-Crystalline	Sequential Extraction Procedure, Non-crystalline Materials	TAL-KNOX	TAL KNX
Organic-Bound	Sequential Extraction Procedure, Organic Bound Fraction	TAL-KNOX	TAL KNX
Residual	Sequential Extraction Procedure, Residual Fraction	TAL-KNOX	TAL KNX
Total	Preparation, Total Material	TAL-KNOX	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

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

TAL-KNOX = TestAmerica Laboratories, Knoxville, Facility Standard Operating Procedure.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: Golder Associates Inc. Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Laboratory: Eurofins TestAmerica, Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	09-30-19
Arizona	State Program	9	AZ0473	05-05-20
Arkansas DEQ	State Program	6	88-0737	04-25-20
California	State Program	9	2938	06-30-20
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-20
Georgia	State Program	4	E87358(FL)/453.07(A2LA)	06-30-20
Illinois	NELAP	5	200010	12-09-19
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-20
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-20
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-20
Massachusetts	State Program	1	M-TN032	06-30-20
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-20
Nevada	State Program	9	TN00032	08-31-19 *
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-20
New York	NELAP	2	11342	03-31-20
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-20
Oklahoma	State Program	6	9412	08-31-19 *
Oregon	NELAP	10	TN200001	04-26-20
Pennsylvania	NELAP	3	68-00585	07-31-19 *
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-20
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	04-10-20
Virginia	NELAP	3	460152	06-14-20
Washington	State Program	10	C789	07-19-19 *
West Virginia DEP	State Program	3	219	02-28-20
Wisconsin	State Program	5	998020430	08-31-19 *
Wyoming (UST)	A2LA	8	453.07	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Golder Associates Inc.
Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Laboratory: Eurofins TestAmerica, Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-20
California	State		2931	04-01-20
California	State Program	9	2931	04-01-20
Connecticut	State Program	1	PH-0568	09-30-20
Florida	NELAP	4	E87672	06-30-20
Georgia	State Program	4	10026 (NY)	03-31-20
Georgia	State Program	4	956	03-31-20
Illinois	NELAP	5	200003	09-30-19 *
Illinois	NELAP		200003	09-30-19 *
Iowa	State Program	7	374	02-28-21
Kansas	NELAP	7	E-10187	01-31-20
Kansas	NELAP		E-10187	01-31-20
Kentucky (DW)	State Program	4	90029	12-31-19
Kentucky (WW)	State Program	4	90029	12-31-19
Louisiana	NELAP	6	02031	06-30-20
Maine	State Program	1	NY00044	12-04-20
Maryland	State Program	3	294	03-31-20
Massachusetts	State Program	1	M-NY044	06-30-20
Michigan	State Program	5	9937	03-31-20
Minnesota	NELAP	5	036-999-337	12-31-19
Minnesota	NELAP		1524384	12-31-19
New Hampshire	NELAP	1	2337	11-17-19
New Jersey	NELAP	2	NY455	06-30-20
New York	NELAP	2	10026	03-31-20
New York	NELAP		10026	04-01-20
North Dakota	State Program	8	R-176	03-31-20
Oklahoma	State		9421	08-31-19
Oklahoma	State Program	6	9421	08-31-19 *
Oregon	NELAP	10	NY200003	06-09-20
Oregon	NELAP		NY200003	06-10-20
Pennsylvania	NELAP	3	68-00281	07-31-19 *
Rhode Island	State Program	1	LAO00328	12-30-19
Tennessee	State Program	4	TN02970	03-31-20
Texas	NELAP	6	T104704412-15-6	07-31-20
Texas	NELAP		T104704412-18-10	07-31-19
USDA	Federal		P330-11-00386	02-06-21
Virginia	NELAP	3	460185	09-14-19
Virginia	NELAP		460185	09-14-19 *
Washington	State		C784	02-10-20
Washington	State Program	10	C784	02-10-20
Wisconsin	State		998310390	08-31-19
Wisconsin	State Program	5	998310390	08-31-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Golder Associates Inc. Job ID: 490-175740-1
Project/Site: R.M. Schahfer - Total & SEP Analysis

Laboratory: Eurofins TestAmerica, Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		N/A	
ANAB	Dept. of Defense ELAP		L2311	02-14-22
ANAB	Dept. of Energy		L2311.01	02-14-22
ANAB	DoD		L2311	02-13-22
ANAB	DOE		L2311.01	02-13-22
Arkansas DEQ	State Program	6	88-0688	06-16-20
California	State Program	9	2423	06-30-20
Colorado	State Program	8	TN00009	02-28-20
Connecticut	State Program	1	PH-0223	09-30-19
Florida	NELAP	4	E87177	06-30-20
Florida	NELAP		E87177	06-30-20
Georgia	State Program	4	906	04-13-20
Hawaii	State Program	9	N/A	04-13-20
Kansas	NELAP	7	E-10349	10-31-19
Kentucky (DW)	State Program	4	90101	12-31-19
Louisiana	NELAP	6	83979	06-30-20
Louisiana (DW)	NELAP	6	LA160005	12-31-19
Maryland	State		277	03-31-20
Maryland	State Program	3	277	03-31-20
Michigan	State Program	5	9933	04-13-20
Nevada	State Program	9	TN00009	08-31-19
New Hampshire	NELAP	1	2999	01-17-20
New Jersey	NELAP	2	TN001	06-30-20
New Jersey	NELAP		TN001	06-30-20
New York	NELAP	2	10781	03-31-20
New York	NELAP		10781	03-31-20
North Carolina (DW)	State Program	4	21705	07-31-20
North Carolina (WW/SW)	State Program	4	64	12-31-19
Ohio VAP	State Program	5	CL0059	08-28-20
Oklahoma	State		9415	08-31-19
Oklahoma	State Program	6	9415	08-31-19
Oregon	NELAP	10	TNI0189	01-01-20
Oregon	NELAP		TNI0189	01-01-20
Pennsylvania	NELAP	3	68-00576	12-31-19
Pennsylvania	NELAP		68-00576	12-31-19
Tennessee	State Program	4	2014	04-13-20
Texas	NELAP	6	T104704380-16-9	08-31-19
Texas	NELAP		T104704380-18-12	08-31-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-20
USDA	Federal		P330-16-00262	08-20-19
Utah	NELAP	8	TN00009	07-31-19 *
Virginia	NELAP	3	460176	09-14-19
Washington	State Program	10	C593	01-19-20
West Virginia (DW)	State Program	3	9955C	12-31-19
West Virginia DEP	State Program	3	345	04-30-20
Wisconsin	State Program	5	998044300	08-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-175740 Chain of Custody

Cooler Received/Opened On 06-11-2019 @ 08:45

Time Samples Removed From Cooler 15:05 Time Samples Placed In Storage 15:14 (2 Hour Window)

1. Tracking # 5189 (last 4 digits, FedEx) Courier: _FedEx_

IR Gun ID 14740456 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 5.3 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 (front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) KI

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

● ⬅ Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial)

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial)

I certify that I attached a label with the unique LIMS number to each container (intial)

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Phone: 865-291-3000 Fax: 865-584-4315

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: DSMC	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-130691-29431.1
Client Contact: James Peace	Phone: (781) 357-5064	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 2
Company: Golder Associates Inc.				Job #:
Address: 670 North Commercial Street Suite 103	Due Date Requested: Standard			
City: Manchester	TAT Requested (days): STAT			
State, Zip: NH, 03101				
Phone: 614-460-4849(Tel)	PO #: S 416388			
Email: jpeace@golder.com	WO #:			
Project Name: R.M. Schahfer Generating Station	Project #: 48018468			
Site: Indiana	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C, 7471B	6010B_SEP, 7470A_SEP	Total Number of Containers	Special Instructions/Note:
			Preservation Code:				N	N		
DW-9-10-12	6/5/19	1300	C	Solid	N	N	1	1		
DW-9-18-20	6/5/19	1310	C	Solid	N	N	1	1		
GAMW-583-15-17ft	6/6/19	11:30	C	Solid	N	N	1	1		Loc: 490 175740
GAMW-42C-10-12Ft	6/7/19	15:20	C	Solid	N	N	1	1		
GAMW-57B-10-12Ft	6/7/19	8:40	C	Solid	N	N	1	1		
GAMW-42C-30-32ft	6/7/19	16:08	C	Solid	N	N	1	1		
				Solid						
				Solid						
				Solid						
				Solid						
				Solid						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 6/10/19	Company: Golder	Received by:	Date/Time: 6/11/19 8:45	Company: TA-MAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.3

Ver: 01/16/2019

Eurofins TestAmerica, Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone: 615-726-0177 Fax: 615-726-3404

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 490-91859.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com	State of Origin: Indiana	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 490-175740-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 7/8/2019			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: R.M. Schahfer - Total & SEP Analysis	Project #: 48018468			
Site: Schahfer - CCR GW Monitoring	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Moisture/ Percent Moisture	6010B_SEP_Calc/ (MOD) SEP Totals	6010B_SEP/SEP1_MgSO4 (MOD) Step 1	6010B_SEP/SEP2_NaOAc (MOD) Step 2	6010B_SEP/SEP3_Oxalate (MOD) Step 3	6010B_SEP/SEP4_Hydroxyl (MOD) Step 4	6010B_SEP/SEP5_NaClO (MOD) Step 5	6010B_SEP/SEP6_Acid (MOD) Step 6	6010B_SEP/SEP7_LM_Prep (MOD) Step 7	6010B/SEP_Tot_Prep (MOD) Total	7470A_SEP_Calc/ SEP Mercury	7470A_SEP/SEP1_MgSO4 Step 1	7470A_SEP/SEP2_NaOAc Step 2	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
OW-9-10-12 (490-175740-1)	6/5/19	13:00 Eastern		Solid			X	X	X	X	X	X	X	X	X	X	X	X	X	1	CUSTODY SEALS INTACT
OW-9-18-20 (490-175740-2)	6/5/19	13:10 Eastern		Solid			X	X	X	X	X	X	X	X	X	X	X	X	X	1	RECEIVED AT RT 0.9/CT 0.4°C
GAMW-58B-15-17ft (490-175740-3)	6/6/19	11:30 Eastern		Solid			X	X	X	X	X	X	X	X	X	X	X	X	X	1	BKD 6-14-19
GAMW-42C-10-12ft (490-175740-4)	6/7/19	15:20 Eastern		Solid			X	X	X	X	X	X	X	X	X	X	X	X	X	1	COOLER FEDEX
GAMW-57B-10-12ft (490-175740-5)	6/7/19	08:40 Eastern		Solid			X	X	X	X	X	X	X	X	X	X	X	X	X	1	482088462266 PO
GAMW-42C-30-32ft (490-175740-6)	6/7/19	16:08 Eastern		Solid			X	X	X	X	X	X	X	X	X	X	X	X	X	1	

490-175740 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample ... currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if ...*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6-13-19 @ 1100	TAMES	[signature]	6-14-19 09:30	FDX-FWX
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone: 615-726-0177 Fax: 615-726-3404

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 490-91859.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com	State of Origin: Indiana	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 490-175740-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 7/8/2019			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: R.M. Schahfer - Total & SEP Analysis	Project #: 48018468			
Site: Schahfer - CCR GW Monitoring	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7470A_SEP/SEP3_Oxalate Step 3	7470A_SEP/SEP4_Hydroxyl Step 4	7470A_SEP/SEP5_NaClO Step 5	7470A_SEP/SEP6_Acid Step 6	7470A_SEP/SEP7_LM_Prep Step 7	7470A/SEP_Tot_Prep Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
OW-9-10-12 (490-175740-1)	6/5/19	13:00 Eastern		Solid			X	X	X	X	X	X	1	
OW-9-18-20 (490-175740-2)	6/5/19	13:10 Eastern		Solid			X	X	X	X	X	X	1	
GAMW-58B-15-17ft (490-175740-3)	6/6/19	11:30 Eastern		Solid			X	X	X	X	X	X	1	
GAMW-42C-10-12ft (490-175740-4)	6/7/19	15:20 Eastern		Solid			X	X	X	X	X	X	1	
GAMW-57B-10-12ft (490-175740-5)	6/7/19	08:40 Eastern		Solid			X	X	X	X	X	X	1	
GAMW-42C-30-32ft (490-175740-6)	6/7/19	16:08 Eastern		Solid			X	X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6-13-19 @ 1100	TAMS	[signature]	6/14-19 09:30	EDX-KNX
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Loc: 490
175740

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓		✓	☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : SC68 Correction factor: 0.0	✓			☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?			✓	☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: _____ PM Instructions: _____

Sample Receiving Associate: [signature] Date: 6/14/19

QA026R31.doc, 112618

8/2/2019

Eurofins TestAmerica, Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone: 615-726-0177 Fax: 615-726-3404

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 490-91857.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com	State of Origin: Indiana	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 490-175740-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 6/21/2019			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: R.M. Schahfer - Total & SEP Analysis	Project #: 48018468			
Site: Schahfer - CCR GW Monitoring	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C/3050B Total App IV Metals + B, Fe and Al	7471B/7471B_Prep Total Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
OW-9-10-12 (490-175740-1)	6/5/19	13:00 Eastern		Solid			X	X	1	
OW-9-18-20 (490-175740-2)	6/5/19	13:10 Eastern		Solid			X	X	1	
GAMW-58B-15-17ft (490-175740-3)	6/6/19	11:30 Eastern		Solid			X	X	1	
GAMW-42C-10-12ft (490-175740-4)	6/7/19	15:20 Eastern		Solid			X	X	1	
GAMW-57B-10-12ft (490-175740-5)	6/7/19	08:40 Eastern		Solid			X	X	1	
GAMW-42C-30-32ft (490-175740-6)	6/7/19	16:08 Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/13/19 @ 1100	TAMRS	[signature]	6/14/19 0900	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 4.2°

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 490-175740-1

Login Number: 175740
List Number: 3
Creator: Hulbert, Michael J

List Source: Eurofins TestAmerica, Buffalo
List Creation: 06/15/19 12:02 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2 #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

wsp.com

APPENDIX C

April/May 2023 Analytical Laboratory Reports

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

May 23, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory between April 13, 2023 and May 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50341962001	GAMW-14-041223	Water	04/12/23 13:40	04/13/23 08:55
50341962002	GAMW-14B-041223	Water	04/12/23 13:25	04/13/23 08:55
50342144001	GAMW-01-041323	Water	04/13/23 11:35	04/14/23 09:00
50342144002	GAMW-01B-041323	Water	04/13/23 12:50	04/14/23 09:00
50342290001	GAMW-03-041423	Water	04/14/23 13:05	04/17/23 08:00
50342290002	GAMW-03B-041423	Water	04/14/23 14:30	04/17/23 08:00
50342290003	GAMW-12-041423	Water	04/14/23 12:00	04/17/23 08:00
50342290004	GAMW-12B-041423	Water	04/14/23 14:30	04/17/23 08:00
50342290005	GAMW-13-041423	Water	04/14/23 09:45	04/17/23 08:00
50342290006	GAMW-13B-041423	Water	04/14/23 11:50	04/17/23 08:00
50342402001	GAMW-51-041523	Water	04/15/23 15:45	04/18/23 09:00
50342402002	GAMW-51B-041523	Water	04/15/23 16:50	04/18/23 09:00
50342402003	GAMW-59-041523	Water	04/15/23 18:10	04/18/23 09:00
50342402004	GAMW-59B-041523	Water	04/15/23 19:05	04/18/23 09:00
50342608001	GAMW-09-041923	Water	04/19/23 10:20	04/20/23 09:10
50342608002	GAMW-09B-041923	Water	04/19/23 12:05	04/20/23 09:10
50342608003	GAMW-17-041923	Water	04/19/23 13:40	04/20/23 09:10
50342608004	GAMW-18-041923	Water	04/19/23 13:40	04/20/23 09:10
50342608005	FD-01-041923	Water	04/19/23 12:00	04/20/23 09:10
50342608006	FB-01-041923	Water	04/19/23 13:45	04/20/23 09:10
50342776001	GAMW-17B-042023	Water	04/20/23 10:25	04/21/23 09:10
50342776002	GAMW-18B-042023	Water	04/20/23 10:05	04/21/23 09:10
50342776003	GAMW-60-042023	Water	04/20/23 11:15	04/21/23 09:10
50342776004	GAMW-60B-042023	Water	04/20/23 12:25	04/21/23 09:10
50342776005	GAMW-16R-042023	Water	04/20/23 13:55	04/21/23 09:10
50342776006	FD-02-042023	Water	04/20/23 12:00	04/21/23 09:10
50342776007	FB-02-042023	Water	04/20/23 12:30	04/21/23 09:10
50342909001	GAMW-08-042123	Water	04/21/23 09:55	04/22/23 09:15
50342909002	GAMW-08B-042123	Water	04/21/23 10:50	04/22/23 09:15
50342909003	GAMW-16BR-042123	Water	04/21/23 09:40	04/22/23 09:15
50342912001	GAMW-56-042123	Water	04/21/23 10:55	04/22/23 09:15
50342912002	GAMW-56B-042123	Water	04/21/23 13:30	04/22/23 09:15
50343032001	GAMW-53-042423	Water	04/24/23 11:05	04/25/23 09:00
50343032002	GAMW-53B-042423	Water	04/24/23 12:50	04/25/23 09:00
50343172001	GAMW-52-042523	Water	04/25/23 09:25	04/26/23 09:05
50343172002	GAMW-52B-042523	Water	04/25/23 11:10	04/26/23 09:05
50343172003	FD-03-042523	Water	04/25/23 12:00	04/26/23 09:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343254001	**GAMW-55B-042623**	Water	04/26/23 13:55	04/27/23 08:55
50343254002	**FB-03-042623**	Water	04/26/23 11:30	04/27/23 08:55
50343255001	**GAMW-54-042623**	Water	04/26/23 10:05	04/27/23 08:55
50343255002	**GAMW-54B-042623**	Water	04/26/23 11:20	04/27/23 08:55
50343255003	**GAMW-55R-042623**	Water	04/26/23 12:35	04/27/23 08:55
50343612001	**GAMW-68-050123**	Water	05/01/23 12:25	05/02/23 09:20
50343612002	**GAMW-68B-050123**	Water	05/01/23 14:40	05/02/23 09:20
50343612003	**FB-04-050123**	Water	05/01/23 14:45	05/02/23 09:20
50343612004	**FD-04-050123**	Water	05/01/23 12:00	05/02/23 09:20

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50341962001	**GAMW-14-041223**	EPA 9056	RMR	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50341962002	**GAMW-14B-041223**	EPA 9056	RMR	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342144001	**GAMW-01-041323**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342144002	**GAMW-01B-041323**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342290001	**GAMW-03-041423**	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342290002	**GAMW-03B-041423**	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342290003	**GAMW-12-041423**	EPA 9056	RMR	3	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342290004	**GAMW-12B-041423**	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342290005	**GAMW-13-041423**	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342290006	**GAMW-13B-041423**	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342402001	**GAMW-51-041523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342402002	**GAMW-51B-041523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342402003	**GAMW-59-041523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342402004	**GAMW-59B-041523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342608001	**GAMW-09-041923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50342608002	**GAMW-09B-041923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50342608003	**GAMW-17-041923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50342608004	**GAMW-18-041923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50342608005	**FD-01-041923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50342608006	**FB-01-041923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50342776001	**GAMW-17B-042023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342776002	**GAMW-18B-042023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342776003	**GAMW-60-042023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342776004	**GAMW-60B-042023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342776005	**GAMW-16R-042023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342776006	**FD-02-042023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342776007	**FB-02-042023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342909001	**GAMW-08-042123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342909002	**GAMW-08B-042123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342909003	**GAMW-16BR-042123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50342912001	**GAMW-56-042123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-H+B	BMS	1	PASI-I
50342912002	**GAMW-56B-042123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343032001	**GAMW-53-042423**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343032002	**GAMW-53B-042423**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343172001	**GAMW-52-042523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343172002	**GAMW-52B-042523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343172003	**FD-03-042523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343254001	**GAMW-55B-042623**	EPA 9056	RMR	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343254002	**FB-03-042623**	EPA 9056	RMR	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343255001	**GAMW-54-042623**	EPA 9056	RMR	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343255002	**GAMW-54B-042623**	EPA 9056	RMR	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343255003	**GAMW-55R-042623**	EPA 9056	RMR	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343612001	**GAMW-68-050123**	EPA 9056	RMR	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343612002	**GAMW-68B-050123**	EPA 9056	RMR	3	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343612003	**FB-04-050123**	EPA 9056	RMR	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343612004	**FD-04-050123**	EPA 9056	RMR	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I

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(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50341962001	**GAMW-14-041223**					
EPA 9056	Chloride	3.0	mg/L	0.25	04/23/23 03:48	
EPA 9056	Fluoride	0.16	mg/L	0.050	04/23/23 03:48	
EPA 9056	Sulfate	41.7	mg/L	0.25	04/23/23 03:48	
EPA 6010	Boron	0.12	mg/L	0.10	04/24/23 14:04	
EPA 6010	Calcium	57.3	mg/L	1.0	04/24/23 14:04	
EPA 6020	Antimony	0.00022J	mg/L	0.0010	04/18/23 19:04	
EPA 6020	Arsenic	0.0093	mg/L	0.0010	04/18/23 19:04	
EPA 6020	Barium	0.045	mg/L	0.0010	04/18/23 19:04	
EPA 6020	Beryllium	0.000033J	mg/L	0.00020	04/18/23 19:04	
EPA 6020	Cadmium	0.000031J	mg/L	0.00020	04/18/23 19:04	
EPA 6020	Chromium	0.00096J	mg/L	0.0020	04/18/23 19:04	
EPA 6020	Cobalt	0.012	mg/L	0.0010	04/18/23 19:04	
EPA 6020	Lead	0.00025J	mg/L	0.0010	04/18/23 19:04	
EPA 6020	Molybdenum	0.0056	mg/L	0.0010	04/18/23 19:04	
EPA 6020	Selenium	0.00055J	mg/L	0.0010	04/18/23 19:04	
EPA 6020	Thallium	0.000057J	mg/L	0.0010	04/18/23 19:04	
SM 2540C	Total Dissolved Solids	201	mg/L	10.0	04/18/23 08:25	
SM 4500-H+B	pH at 25 Degrees C	8.8	Std. Units	0.10	04/26/23 14:25	H3
50341962002	**GAMW-14B-041223**					
EPA 9056	Chloride	108	mg/L	2.5	04/23/23 04:35	
EPA 9056	Sulfate	922	mg/L	25.0	04/25/23 09:19	
EPA 6010	Boron	2.4	mg/L	0.10	04/24/23 14:11	
EPA 6010	Calcium	175	mg/L	1.0	04/24/23 14:11	
EPA 6020	Antimony	0.000072J	mg/L	0.0010	04/18/23 19:07	
EPA 6020	Arsenic	0.00040J	mg/L	0.0010	04/18/23 19:07	
EPA 6020	Barium	0.064	mg/L	0.0010	04/18/23 19:07	
EPA 6020	Beryllium	0.000038J	mg/L	0.00020	04/18/23 19:07	
EPA 6020	Chromium	0.00090J	mg/L	0.0020	04/18/23 19:07	
EPA 6020	Cobalt	0.00026J	mg/L	0.0010	04/18/23 19:07	
EPA 6020	Lead	0.000038J	mg/L	0.0010	04/18/23 19:07	
EPA 6020	Molybdenum	0.028	mg/L	0.0010	04/18/23 19:07	
EPA 6020	Selenium	0.00029J	mg/L	0.0010	04/18/23 19:07	
SM 2540C	Total Dissolved Solids	3420	mg/L	40.0	04/18/23 08:26	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	04/26/23 14:22	H3
50342144001	**GAMW-01-041323**					
EPA 9056	Chloride	14.8	mg/L	0.25	04/26/23 16:17	
EPA 9056	Fluoride	0.34	mg/L	0.050	04/26/23 16:17	
EPA 9056	Sulfate	152	mg/L	2.5	04/26/23 16:32	
EPA 6010	Boron	1.0	mg/L	0.10	04/26/23 10:37	
EPA 6010	Calcium	97.3	mg/L	1.0	04/26/23 10:37	
EPA 6020	Antimony	0.00015J	mg/L	0.0010	04/18/23 19:11	
EPA 6020	Arsenic	0.0066	mg/L	0.0010	04/18/23 19:11	
EPA 6020	Barium	0.062	mg/L	0.0010	04/18/23 19:11	
EPA 6020	Cadmium	0.000025J	mg/L	0.00020	04/18/23 19:11	
EPA 6020	Chromium	0.00044J	mg/L	0.0020	04/18/23 19:11	
EPA 6020	Cobalt	0.0027	mg/L	0.0010	04/18/23 19:11	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342144001	**GAMW-01-041323**					
EPA 6020	Molybdenum	0.018	mg/L	0.0010	04/18/23 19:11	
EPA 6020	Selenium	0.011	mg/L	0.0010	04/18/23 19:11	
EPA 6020	Thallium	0.000096J	mg/L	0.0010	04/18/23 19:11	
SM 2540C	Total Dissolved Solids	471	mg/L	10.0	04/19/23 08:39	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	04/26/23 13:06	H3
50342144002	**GAMW-01B-041323**					
EPA 9056	Chloride	23.9	mg/L	0.25	04/26/23 17:04	
EPA 9056	Fluoride	0.17	mg/L	0.050	04/26/23 17:04	
EPA 9056	Sulfate	66.1	mg/L	2.5	04/26/23 17:23	
EPA 6010	Boron	0.34	mg/L	0.10	04/26/23 10:42	
EPA 6010	Calcium	107	mg/L	1.0	04/26/23 10:42	
EPA 6020	Antimony	0.000080J	mg/L	0.0010	04/18/23 19:20	
EPA 6020	Arsenic	0.00030J	mg/L	0.0010	04/18/23 19:20	
EPA 6020	Barium	0.19	mg/L	0.0020	04/19/23 18:11	
EPA 6020	Chromium	0.00045J	mg/L	0.0020	04/18/23 19:20	
EPA 6020	Cobalt	0.00024J	mg/L	0.0010	04/18/23 19:20	
EPA 6020	Lead	0.000040J	mg/L	0.0010	04/18/23 19:20	
EPA 6020	Molybdenum	0.0011	mg/L	0.0010	04/18/23 19:20	
SM 2540C	Total Dissolved Solids	472	mg/L	10.0	04/19/23 08:42	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	04/27/23 08:27	H3
50342290001	**GAMW-03-041423**					
EPA 9056	Chloride	2.8	mg/L	0.25	04/29/23 00:55	
EPA 9056	Fluoride	0.22	mg/L	0.050	04/29/23 00:55	
EPA 9056	Sulfate	101	mg/L	2.5	04/29/23 01:14	
EPA 6010	Boron	0.25	mg/L	0.10	04/26/23 12:30	
EPA 6010	Calcium	95.4	mg/L	1.0	04/26/23 12:30	
EPA 6020	Antimony	0.00056J	mg/L	0.0010	04/26/23 08:22	
EPA 6020	Arsenic	0.0027	mg/L	0.0010	04/26/23 08:22	
EPA 6020	Barium	0.082	mg/L	0.0010	04/26/23 08:22	
EPA 6020	Cadmium	0.000070J	mg/L	0.00020	04/26/23 08:22	
EPA 6020	Chromium	0.00039J	mg/L	0.0020	04/26/23 08:22	
EPA 6020	Cobalt	0.0015	mg/L	0.0010	04/26/23 08:22	
EPA 6020	Lead	0.00016J	mg/L	0.0010	04/26/23 08:22	
EPA 6020	Molybdenum	0.010	mg/L	0.0010	04/26/23 08:22	
EPA 6020	Selenium	0.00072J	mg/L	0.0010	04/26/23 08:22	
SM 2540C	Total Dissolved Solids	403	mg/L	10.0	04/19/23 16:52	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	04/27/23 08:49	H3
50342290002	**GAMW-03B-041423**					
EPA 9056	Chloride	25.0	mg/L	2.5	04/29/23 01:53	
EPA 9056	Fluoride	0.19	mg/L	0.050	04/29/23 01:34	
EPA 9056	Sulfate	111	mg/L	2.5	04/29/23 01:53	
EPA 6010	Boron	0.35	mg/L	0.10	04/26/23 12:33	
EPA 6010	Calcium	102	mg/L	1.0	04/26/23 12:33	
EPA 6020	Antimony	0.000086J	mg/L	0.0010	04/26/23 08:49	
EPA 6020	Arsenic	0.00043J	mg/L	0.0010	04/26/23 08:49	
EPA 6020	Barium	0.11	mg/L	0.0010	04/26/23 08:49	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342290002	**GAMW-03B-041423**					
EPA 6020	Chromium	0.00044J	mg/L	0.0020	04/26/23 08:49	
EPA 6020	Cobalt	0.00041J	mg/L	0.0010	04/26/23 08:49	
EPA 6020	Molybdenum	0.0065	mg/L	0.0010	04/26/23 08:49	
SM 2540C	Total Dissolved Solids	465	mg/L	10.0	04/19/23 16:53	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	04/27/23 08:49	H3
50342290003	**GAMW-12-041423**					
EPA 9056	Chloride	3.7	mg/L	0.25	04/29/23 02:13	
EPA 9056	Fluoride	0.19	mg/L	0.050	04/29/23 02:13	
EPA 9056	Sulfate	15.6	mg/L	0.25	04/29/23 02:13	
EPA 6010	Boron	0.062J	mg/L	0.10	04/26/23 12:35	
EPA 6010	Calcium	87.9	mg/L	1.0	04/26/23 12:35	
EPA 6020	Antimony	0.00010J	mg/L	0.0010	04/26/23 08:53	
EPA 6020	Arsenic	0.010	mg/L	0.0010	04/26/23 08:53	
EPA 6020	Barium	0.087	mg/L	0.0010	04/26/23 08:53	
EPA 6020	Chromium	0.00043J	mg/L	0.0020	04/26/23 08:53	
EPA 6020	Cobalt	0.0022	mg/L	0.0010	04/26/23 08:53	
EPA 6020	Molybdenum	0.0046	mg/L	0.0010	04/26/23 08:53	
EPA 6020	Selenium	0.00038J	mg/L	0.0010	04/26/23 08:53	
SM 2540C	Total Dissolved Solids	345	mg/L	10.0	04/19/23 16:53	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	04/27/23 08:48	H3
50342290004	**GAMW-12B-041423**					
EPA 9056	Chloride	23.9	mg/L	2.5	04/29/23 03:11	
EPA 9056	Fluoride	0.094J	mg/L	0.050	04/29/23 02:52	
EPA 9056	Sulfate	113	mg/L	2.5	04/29/23 03:11	
EPA 6010	Boron	0.46	mg/L	0.10	04/26/23 12:37	
EPA 6010	Calcium	95.4	mg/L	1.0	04/26/23 12:37	
EPA 6020	Arsenic	0.00041J	mg/L	0.0010	04/26/23 08:56	
EPA 6020	Barium	0.14	mg/L	0.0010	04/26/23 08:56	
EPA 6020	Chromium	0.00030J	mg/L	0.0020	04/26/23 08:56	
EPA 6020	Cobalt	0.00019J	mg/L	0.0010	04/26/23 08:56	
EPA 6020	Molybdenum	0.0027	mg/L	0.0010	04/26/23 08:56	
EPA 6020	Selenium	0.00022J	mg/L	0.0010	04/26/23 08:56	
SM 2540C	Total Dissolved Solids	448	mg/L	10.0	04/19/23 16:54	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	04/27/23 08:50	H3
50342290005	**GAMW-13-041423**					
EPA 9056	Chloride	2.4	mg/L	0.25	04/29/23 04:10	
EPA 9056	Fluoride	0.23	mg/L	0.050	04/29/23 04:10	
EPA 9056	Sulfate	18.0	mg/L	0.25	04/29/23 04:10	
EPA 6010	Boron	0.054J	mg/L	0.10	04/26/23 12:44	
EPA 6010	Calcium	61.4	mg/L	1.0	04/26/23 12:44	
EPA 6020	Antimony	0.00075J	mg/L	0.0010	04/26/23 09:06	
EPA 6020	Arsenic	0.0030	mg/L	0.0010	04/26/23 09:06	
EPA 6020	Barium	0.066	mg/L	0.0010	04/26/23 09:06	
EPA 6020	Cadmium	0.000069J	mg/L	0.00020	04/26/23 09:06	
EPA 6020	Chromium	0.00044J	mg/L	0.0020	04/26/23 09:06	
EPA 6020	Cobalt	0.00024J	mg/L	0.0010	04/26/23 09:06	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342290005	**GAMW-13-041423**					
EPA 6020	Molybdenum	0.0041	mg/L	0.0010	04/26/23 09:06	
EPA 6020	Selenium	0.00039J	mg/L	0.0010	04/26/23 09:06	
SM 2540C	Total Dissolved Solids	217	mg/L	10.0	04/20/23 09:54	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	04/27/23 08:47	H3
50342290006	**GAMW-13B-041423**					
EPA 9056	Chloride	27.4	mg/L	2.5	04/29/23 05:08	
EPA 9056	Fluoride	0.27	mg/L	0.050	04/29/23 04:48	
EPA 9056	Sulfate	116	mg/L	2.5	04/29/23 05:08	
EPA 6010	Boron	0.62	mg/L	0.10	04/26/23 12:46	
EPA 6010	Calcium	77.0	mg/L	1.0	04/26/23 12:46	
EPA 6020	Arsenic	0.0016	mg/L	0.0010	04/26/23 09:10	
EPA 6020	Barium	0.087	mg/L	0.0010	04/26/23 09:10	
EPA 6020	Chromium	0.00047J	mg/L	0.0020	04/26/23 09:10	
EPA 6020	Cobalt	0.00015J	mg/L	0.0010	04/26/23 09:10	
EPA 6020	Molybdenum	0.014	mg/L	0.0010	04/26/23 09:10	
EPA 6020	Selenium	0.00021J	mg/L	0.0010	04/26/23 09:10	
SM 2540C	Total Dissolved Solids	368	mg/L	10.0	04/20/23 09:55	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	04/27/23 08:47	H3
50342402001	**GAMW-51-041523**					
EPA 9056	Chloride	2.3	mg/L	0.25	04/28/23 12:51	
EPA 9056	Fluoride	0.32	mg/L	0.050	04/28/23 12:51	
EPA 9056	Sulfate	173	mg/L	2.5	04/28/23 13:09	
EPA 6010	Boron	0.42	mg/L	0.10	04/26/23 13:21	
EPA 6010	Calcium	131	mg/L	1.0	04/26/23 13:21	
EPA 6020	Antimony	0.00013J	mg/L	0.0010	04/26/23 09:13	
EPA 6020	Arsenic	0.0015	mg/L	0.0010	04/26/23 09:13	
EPA 6020	Barium	0.089	mg/L	0.0010	04/26/23 09:13	
EPA 6020	Chromium	0.00036J	mg/L	0.0020	04/26/23 09:13	
EPA 6020	Cobalt	0.0042	mg/L	0.0010	04/26/23 09:13	
EPA 6020	Molybdenum	0.0074	mg/L	0.0010	04/26/23 09:13	
EPA 6020	Selenium	0.00035J	mg/L	0.0010	04/26/23 09:13	
SM 2540C	Total Dissolved Solids	523	mg/L	10.0	04/20/23 09:55	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	04/27/23 09:47	H3
50342402002	**GAMW-51B-041523**					
EPA 9056	Chloride	46.5	mg/L	2.5	04/28/23 13:46	
EPA 9056	Fluoride	1.0	mg/L	0.050	04/28/23 13:27	
EPA 9056	Sulfate	1230	mg/L	25.0	04/29/23 21:30	
EPA 6010	Boron	7.1	mg/L	0.10	04/26/23 13:24	
EPA 6010	Calcium	209	mg/L	2.0	04/26/23 15:10	
EPA 6010	Lithium	0.066	mg/L	0.010	04/26/23 13:24	
EPA 6020	Antimony	0.000087J	mg/L	0.0010	04/26/23 09:17	
EPA 6020	Arsenic	0.0041	mg/L	0.0010	04/26/23 09:17	
EPA 6020	Barium	0.056	mg/L	0.0010	04/26/23 09:17	
EPA 6020	Chromium	0.00059J	mg/L	0.0020	04/26/23 09:17	
EPA 6020	Cobalt	0.00032J	mg/L	0.0010	04/26/23 09:17	
EPA 6020	Molybdenum	0.13	mg/L	0.0010	04/26/23 09:17	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342402002	**GAMW-51B-041523**					
EPA 6020	Selenium	0.00048J	mg/L	0.0010	04/26/23 09:17	
SM 2540C	Total Dissolved Solids	1930	mg/L	40.0	04/20/23 09:56	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	04/27/23 09:50	H3
50342402003	**GAMW-59-041523**					
EPA 9056	Chloride	2.5	mg/L	0.25	04/28/23 14:04	
EPA 9056	Fluoride	0.70	mg/L	0.050	04/28/23 14:04	
EPA 9056	Sulfate	554	mg/L	25.0	04/29/23 21:49	
EPA 6010	Boron	0.61	mg/L	0.10	04/26/23 13:26	
EPA 6010	Calcium	256	mg/L	2.0	04/26/23 14:49	
EPA 6020	Antimony	0.000086J	mg/L	0.0010	04/26/23 09:20	
EPA 6020	Arsenic	0.00083J	mg/L	0.0010	04/26/23 09:20	
EPA 6020	Barium	0.079	mg/L	0.0010	04/26/23 09:20	
EPA 6020	Chromium	0.00029J	mg/L	0.0020	04/26/23 09:20	
EPA 6020	Cobalt	0.0010	mg/L	0.0010	04/26/23 09:20	
EPA 6020	Molybdenum	0.028	mg/L	0.0010	04/26/23 09:20	
SM 2540C	Total Dissolved Solids	1020	mg/L	20.0	04/20/23 09:56	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	04/27/23 09:51	H3
50342402004	**GAMW-59B-041523**					
EPA 9056	Chloride	66.4	mg/L	2.5	04/28/23 15:58	
EPA 9056	Fluoride	0.50	mg/L	0.050	04/28/23 14:41	
EPA 9056	Sulfate	858	mg/L	25.0	04/29/23 22:07	
EPA 6010	Boron	5.7	mg/L	0.10	04/26/23 13:28	
EPA 6010	Calcium	155	mg/L	1.0	04/26/23 13:28	
EPA 6010	Lithium	0.010	mg/L	0.010	04/26/23 13:28	
EPA 6020	Arsenic	0.00090J	mg/L	0.0010	04/26/23 09:24	
EPA 6020	Barium	0.031	mg/L	0.0010	04/26/23 09:24	
EPA 6020	Chromium	0.00060J	mg/L	0.0020	04/26/23 09:24	
EPA 6020	Cobalt	0.00034J	mg/L	0.0010	04/26/23 09:24	
EPA 6020	Molybdenum	0.080	mg/L	0.0010	04/26/23 09:24	
EPA 6020	Selenium	0.00030J	mg/L	0.0010	04/26/23 09:24	
SM 2540C	Total Dissolved Solids	1670	mg/L	40.0	04/21/23 08:22	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	04/27/23 09:52	H3
50342608001	**GAMW-09-041923**					
EPA 9056	Chloride	28.5	mg/L	2.5	04/29/23 17:27	
EPA 9056	Fluoride	0.25	mg/L	0.050	04/29/23 17:09	
EPA 9056	Sulfate	416	mg/L	2.5	04/29/23 17:27	
EPA 6010	Boron	2.3	mg/L	0.10	04/29/23 14:27	
EPA 6010	Calcium	175	mg/L	1.0	04/29/23 14:27	
EPA 6020	Antimony	0.00013J	mg/L	0.0010	04/27/23 18:19	
EPA 6020	Arsenic	0.00019J	mg/L	0.0010	04/27/23 18:19	
EPA 6020	Barium	0.053	mg/L	0.0010	04/27/23 18:19	
EPA 6020	Beryllium	0.00082	mg/L	0.00020	04/27/23 18:19	
EPA 6020	Cadmium	0.00025	mg/L	0.00020	04/27/23 18:19	
EPA 6020	Chromium	0.00085J	mg/L	0.0020	04/27/23 18:19	
EPA 6020	Cobalt	0.0015	mg/L	0.0010	04/27/23 18:19	
EPA 6020	Molybdenum	0.031	mg/L	0.0020	04/28/23 04:17	

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(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342608001	**GAMW-09-041923**					
EPA 6020	Selenium	0.0050	mg/L	0.0010	04/27/23 18:19	
SM 2540C	Total Dissolved Solids	778	mg/L	10.0	04/25/23 11:31	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/02/23 15:32	H3
50342608002	**GAMW-09B-041923**					
EPA 9056	Chloride	100	mg/L	2.5	04/29/23 18:23	
EPA 9056	Fluoride	0.84	mg/L	0.050	04/29/23 18:04	
EPA 9056	Sulfate	756	mg/L	25.0	04/29/23 18:41	
EPA 6010	Boron	7.7	mg/L	0.10	04/29/23 14:29	
EPA 6010	Calcium	249	mg/L	2.0	04/29/23 15:01	
EPA 6020	Arsenic	0.0023	mg/L	0.0010	04/27/23 18:22	
EPA 6020	Barium	0.045	mg/L	0.0010	04/27/23 18:22	
EPA 6020	Chromium	0.00024J	mg/L	0.0020	04/27/23 18:22	
EPA 6020	Cobalt	0.00071J	mg/L	0.0010	04/27/23 18:22	
EPA 6020	Molybdenum	0.015	mg/L	0.0010	04/27/23 18:22	
EPA 6020	Selenium	0.00024J	mg/L	0.0010	04/27/23 18:22	
SM 2540C	Total Dissolved Solids	1370	mg/L	20.0	04/25/23 11:41	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/02/23 15:34	H3
50342608003	**GAMW-17-041923**					
EPA 9056	Chloride	125	mg/L	2.5	04/29/23 20:13	
EPA 9056	Fluoride	1.2	mg/L	0.050	04/29/23 19:55	
EPA 9056	Sulfate	559	mg/L	25.0	04/29/23 20:32	
EPA 6010	Boron	11.2	mg/L	0.10	04/29/23 14:31	
EPA 6010	Calcium	260	mg/L	2.0	04/29/23 15:04	
EPA 6020	Antimony	0.00021J	mg/L	0.0010	04/27/23 18:26	
EPA 6020	Arsenic	0.0017	mg/L	0.0010	04/27/23 18:26	
EPA 6020	Barium	0.070	mg/L	0.0010	04/27/23 18:26	
EPA 6020	Chromium	0.00039J	mg/L	0.0020	04/27/23 18:26	
EPA 6020	Cobalt	0.00033J	mg/L	0.0010	04/27/23 18:26	
EPA 6020	Molybdenum	0.010	mg/L	0.0010	04/27/23 18:26	
EPA 6020	Selenium	0.0016	mg/L	0.0010	04/27/23 18:26	
SM 2540C	Total Dissolved Solids	1160	mg/L	20.0	04/25/23 11:41	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	05/02/23 15:35	H3
50342608004	**GAMW-18-041923**					
EPA 9056	Chloride	44.6	mg/L	2.5	04/29/23 21:08	
EPA 9056	Fluoride	0.12	mg/L	0.050	04/29/23 20:50	
EPA 9056	Sulfate	1230	mg/L	25.0	04/29/23 21:27	
EPA 6010	Boron	3.5	mg/L	0.10	04/29/23 14:34	
EPA 6010	Calcium	480	mg/L	5.0	04/29/23 15:06	
EPA 6020	Antimony	0.00012J	mg/L	0.0010	04/27/23 18:29	
EPA 6020	Arsenic	0.00095J	mg/L	0.0010	04/27/23 18:29	
EPA 6020	Barium	0.040	mg/L	0.0010	04/27/23 18:29	
EPA 6020	Cadmium	0.000091J	mg/L	0.00020	04/27/23 18:29	
EPA 6020	Chromium	0.00097J	mg/L	0.0020	04/27/23 18:29	
EPA 6020	Cobalt	0.00096J	mg/L	0.0010	04/27/23 18:29	
EPA 6020	Lead	0.00068J	mg/L	0.0010	04/27/23 18:29	
EPA 6020	Molybdenum	0.16	mg/L	0.0010	04/27/23 18:29	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342608004	**GAMW-18-041923**					
EPA 6020	Selenium	0.063	mg/L	0.0010	04/27/23 18:29	
SM 2540C	Total Dissolved Solids	2060	mg/L	20.0	04/25/23 11:41	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/02/23 15:37	H3
50342608005	**FD-01-041923**					
EPA 9056	Chloride	103	mg/L	2.5	04/29/23 22:04	
EPA 9056	Fluoride	0.85	mg/L	0.050	04/29/23 21:45	
EPA 9056	Sulfate	734	mg/L	25.0	04/29/23 22:22	
EPA 6010	Boron	7.9	mg/L	0.10	04/29/23 14:36	
EPA 6010	Calcium	252	mg/L	2.0	04/29/23 15:08	
EPA 6020	Arsenic	0.0022	mg/L	0.0010	04/27/23 18:43	
EPA 6020	Barium	0.044	mg/L	0.0010	04/27/23 18:43	
EPA 6020	Chromium	0.00022J	mg/L	0.0020	04/27/23 18:43	
EPA 6020	Cobalt	0.00069J	mg/L	0.0010	04/27/23 18:43	
EPA 6020	Molybdenum	0.015	mg/L	0.0010	04/27/23 18:43	
SM 2540C	Total Dissolved Solids	1360	mg/L	20.0	04/25/23 11:42	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	05/02/23 15:40	H3
50342608006	**FB-01-041923**					
EPA 9056	Chloride	0.086J	mg/L	0.25	04/29/23 23:17	
EPA 6020	Barium	0.0011	mg/L	0.0010	04/27/23 18:46	C0
EPA 6020	Chromium	0.00028J	mg/L	0.0020	04/27/23 18:46	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	05/02/23 15:41	H3
50342776001	**GAMW-17B-042023**					
EPA 9056	Chloride	134	mg/L	2.5	04/30/23 02:40	
EPA 9056	Fluoride	0.56	mg/L	0.050	04/30/23 02:22	
EPA 9056	Sulfate	553	mg/L	25.0	04/30/23 02:59	
EPA 6010	Boron	9.8	mg/L	0.10	05/03/23 13:17	
EPA 6010	Calcium	225	mg/L	2.0	05/03/23 14:09	
EPA 6020	Arsenic	0.0031	mg/L	0.0010	04/27/23 18:50	
EPA 6020	Barium	0.064	mg/L	0.0010	04/27/23 18:50	
EPA 6020	Chromium	0.00029J	mg/L	0.0020	04/27/23 18:50	
EPA 6020	Cobalt	0.00028J	mg/L	0.0010	04/27/23 18:50	
EPA 6020	Molybdenum	0.013	mg/L	0.0010	04/27/23 18:50	
SM 2540C	Total Dissolved Solids	1320	mg/L	20.0	04/26/23 09:02	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/05/23 11:47	H3
50342776002	**GAMW-18B-042023**					
EPA 9056	Chloride	138	mg/L	2.5	04/30/23 06:03	
EPA 9056	Fluoride	1.1	mg/L	0.050	04/30/23 05:44	
EPA 9056	Sulfate	705	mg/L	25.0	04/30/23 06:21	
EPA 6010	Boron	11.3	mg/L	0.10	05/03/23 13:32	
EPA 6010	Calcium	332	mg/L	2.0	05/03/23 14:16	
EPA 6010	Lithium	0.021	mg/L	0.010	05/03/23 13:32	
EPA 6020	Arsenic	0.0021	mg/L	0.0010	04/27/23 19:13	
EPA 6020	Barium	0.030	mg/L	0.0010	04/27/23 19:13	
EPA 6020	Cadmium	0.000017J	mg/L	0.00020	04/27/23 19:13	
EPA 6020	Chromium	0.00033J	mg/L	0.0020	04/27/23 19:13	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342776002	**GAMW-18B-042023**					
EPA 6020	Cobalt	0.00044J	mg/L	0.0010	04/27/23 19:13	
EPA 6020	Molybdenum	0.0097	mg/L	0.0010	04/27/23 19:13	
SM 2540C	Total Dissolved Solids	1990	mg/L	20.0	04/26/23 09:03	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/05/23 11:49	H3
50342776003	**GAMW-60-042023**					
EPA 9056	Chloride	13.9	mg/L	0.25	04/30/23 07:17	
EPA 9056	Fluoride	0.50	mg/L	0.050	04/30/23 07:17	
EPA 9056	Sulfate	826	mg/L	25.0	04/30/23 07:53	
EPA 6010	Boron	1.2	mg/L	0.10	05/03/23 13:35	
EPA 6010	Calcium	385	mg/L	3.0	05/03/23 14:18	
EPA 6020	Antimony	0.00016J	mg/L	0.0010	04/27/23 19:27	
EPA 6020	Arsenic	0.00035J	mg/L	0.0010	04/27/23 19:27	
EPA 6020	Barium	0.030	mg/L	0.0010	04/27/23 19:27	
EPA 6020	Cadmium	0.000040J	mg/L	0.00020	04/27/23 19:27	
EPA 6020	Chromium	0.00036J	mg/L	0.0020	04/28/23 08:09	
EPA 6020	Cobalt	0.0015	mg/L	0.0010	04/27/23 19:27	
EPA 6020	Molybdenum	0.014	mg/L	0.0010	04/27/23 19:27	
EPA 6020	Selenium	0.0055	mg/L	0.0010	04/27/23 19:27	
SM 2540C	Total Dissolved Solids	1480	mg/L	20.0	04/26/23 09:09	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/05/23 11:50	H3
50342776004	**GAMW-60B-042023**					
EPA 9056	Chloride	12.1	mg/L	0.25	04/30/23 08:12	
EPA 9056	Fluoride	0.54	mg/L	0.050	04/30/23 08:12	
EPA 9056	Sulfate	1050	mg/L	25.0	04/30/23 08:49	
EPA 6010	Boron	7.1	mg/L	0.10	05/03/23 13:37	
EPA 6010	Calcium	402	mg/L	3.0	05/03/23 14:48	
EPA 6010	Lithium	0.077	mg/L	0.010	05/03/23 13:37	
EPA 6020	Arsenic	0.00020J	mg/L	0.0010	04/27/23 19:31	
EPA 6020	Barium	0.066	mg/L	0.0010	04/27/23 19:31	
EPA 6020	Chromium	0.00044J	mg/L	0.0020	04/28/23 08:05	
EPA 6020	Cobalt	0.00054J	mg/L	0.0010	04/27/23 19:31	
EPA 6020	Molybdenum	0.24	mg/L	0.0020	04/28/23 04:24	
SM 2540C	Total Dissolved Solids	1880	mg/L	20.0	04/26/23 09:09	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/05/23 11:51	H3
50342776005	**GAMW-16R-042023**					
EPA 9056	Chloride	41.7	mg/L	2.5	04/30/23 09:26	
EPA 9056	Fluoride	0.58	mg/L	0.050	04/30/23 09:07	
EPA 9056	Sulfate	549	mg/L	25.0	04/30/23 09:44	
EPA 6010	Boron	2.9	mg/L	0.10	05/03/23 13:39	
EPA 6010	Calcium	256	mg/L	2.0	05/03/23 14:50	
EPA 6020	Arsenic	0.0050	mg/L	0.0010	04/27/23 19:34	
EPA 6020	Barium	0.042	mg/L	0.0010	04/27/23 19:34	
EPA 6020	Chromium	0.00024J	mg/L	0.0020	04/28/23 08:12	
EPA 6020	Cobalt	0.0026	mg/L	0.0010	04/27/23 19:34	
EPA 6020	Molybdenum	0.053	mg/L	0.0010	04/27/23 19:34	
SM 2540C	Total Dissolved Solids	1080	mg/L	20.0	04/26/23 09:10	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342776005	**GAMW-16R-042023**					
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/05/23 11:51	H3
50342776006	**FD-02-042023**					
EPA 9056	Chloride	13.8	mg/L	0.25	04/30/23 10:39	
EPA 9056	Fluoride	0.50	mg/L	0.050	04/30/23 10:39	
EPA 9056	Sulfate	859	mg/L	25.0	04/30/23 11:16	
EPA 6010	Boron	1.2	mg/L	0.10	05/03/23 13:41	
EPA 6010	Calcium	389	mg/L	3.0	05/03/23 14:53	
EPA 6020	Antimony	0.00015J	mg/L	0.0010	04/27/23 19:37	
EPA 6020	Arsenic	0.00038J	mg/L	0.0010	04/27/23 19:37	
EPA 6020	Barium	0.030	mg/L	0.0010	04/27/23 19:37	
EPA 6020	Cadmium	0.000040J	mg/L	0.00020	04/27/23 19:37	
EPA 6020	Chromium	0.00029J	mg/L	0.0020	04/28/23 08:15	
EPA 6020	Cobalt	0.0016	mg/L	0.0010	04/27/23 19:37	
EPA 6020	Molybdenum	0.014	mg/L	0.0010	04/27/23 19:37	
EPA 6020	Selenium	0.0057	mg/L	0.0010	04/27/23 19:37	
SM 2540C	Total Dissolved Solids	1490	mg/L	20.0	04/26/23 09:10	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/05/23 11:53	H3
50342776007	**FB-02-042023**					
EPA 9056	Chloride	0.071J	mg/L	0.25	04/30/23 11:35	
EPA 6020	Barium	0.00086J	mg/L	0.0010	04/27/23 19:48	
EPA 6020	Chromium	0.00029J	mg/L	0.0020	04/28/23 08:19	
SM 4500-H+B	pH at 25 Degrees C	6.3	Std. Units	0.10	05/05/23 11:55	H3
50342909001	**GAMW-08-042123**					
EPA 9056	Chloride	62.7	mg/L	2.5	05/04/23 06:55	
EPA 9056	Fluoride	1.8	mg/L	0.050	05/04/23 06:38	
EPA 9056	Sulfate	550	mg/L	25.0	05/04/23 17:59	
EPA 6010	Boron	1.5	mg/L	0.10	05/04/23 10:11	
EPA 6010	Calcium	298	mg/L	2.0	05/04/23 11:38	
EPA 6020	Antimony	0.00064J	mg/L	0.0010	04/27/23 19:51	
EPA 6020	Arsenic	0.0023	mg/L	0.0010	04/27/23 19:51	
EPA 6020	Barium	0.047	mg/L	0.0010	04/27/23 19:51	
EPA 6020	Cadmium	0.00011J	mg/L	0.00020	04/27/23 19:51	
EPA 6020	Chromium	0.00048J	mg/L	0.0020	04/28/23 08:33	
EPA 6020	Cobalt	0.0032	mg/L	0.0010	04/27/23 19:51	
EPA 6020	Molybdenum	0.065	mg/L	0.0010	04/27/23 19:51	
EPA 6020	Selenium	0.017	mg/L	0.0010	04/27/23 19:51	
EPA 6020	Thallium	0.000067J	mg/L	0.0010	04/27/23 19:51	
SM 2540C	Total Dissolved Solids	1480	mg/L	20.0	04/27/23 09:09	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/08/23 12:59	H3
50342909002	**GAMW-08B-042123**					
EPA 9056	Chloride	187	mg/L	2.5	05/04/23 18:17	
EPA 9056	Fluoride	1.3	mg/L	0.050	05/04/23 07:12	
EPA 9056	Sulfate	1060	mg/L	25.0	05/04/23 18:34	
EPA 6010	Boron	11.7	mg/L	0.10	05/04/23 10:18	
EPA 6010	Calcium	230	mg/L	2.0	05/04/23 11:45	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342909002	**GAMW-08B-042123**					
EPA 6020	Arsenic	0.00031J	mg/L	0.0010	04/27/23 19:55	
EPA 6020	Barium	0.055	mg/L	0.0010	04/27/23 19:55	
EPA 6020	Chromium	0.00023J	mg/L	0.0020	04/28/23 08:36	
EPA 6020	Cobalt	0.00038J	mg/L	0.0010	04/27/23 19:55	
EPA 6020	Molybdenum	0.011	mg/L	0.0010	04/27/23 19:55	
SM 2540C	Total Dissolved Solids	2050	mg/L	20.0	04/27/23 09:09	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/08/23 13:01	H3
50342909003	**GAMW-16BR-042123**					
EPA 9056	Chloride	392	mg/L	25.0	05/04/23 19:26	
EPA 9056	Fluoride	0.63	mg/L	0.050	05/04/23 07:47	
EPA 9056	Sulfate	2360	mg/L	25.0	05/04/23 19:26	
EPA 6010	Boron	22.3	mg/L	0.10	05/04/23 10:20	
EPA 6010	Calcium	522	mg/L	5.0	05/04/23 11:47	
EPA 6010	Lithium	0.021	mg/L	0.010	05/05/23 10:08	2d
EPA 6020	Arsenic	0.0016	mg/L	0.0010	04/27/23 19:58	
EPA 6020	Barium	0.053	mg/L	0.0010	04/27/23 19:58	
EPA 6020	Chromium	0.00056J	mg/L	0.0020	04/28/23 08:40	
EPA 6020	Cobalt	0.00082J	mg/L	0.0010	04/27/23 19:58	
EPA 6020	Lead	0.000083J	mg/L	0.0010	04/27/23 19:58	
EPA 6020	Molybdenum	0.012	mg/L	0.0010	04/27/23 19:58	
EPA 6020	Selenium	0.00073J	mg/L	0.0010	04/27/23 19:58	
SM 2540C	Total Dissolved Solids	4420	mg/L	40.0	04/27/23 09:10	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	05/08/23 13:02	H3
50342912001	**GAMW-56-042123**					
EPA 9056	Chloride	7.5	mg/L	0.25	05/04/23 08:22	
EPA 9056	Fluoride	0.47	mg/L	0.050	05/04/23 08:22	
EPA 9056	Sulfate	63.9	mg/L	2.5	05/04/23 08:40	
EPA 6010	Boron	0.29	mg/L	0.10	05/04/23 10:23	
EPA 6010	Calcium	118	mg/L	1.0	05/04/23 10:23	
EPA 6020	Antimony	0.00017J	mg/L	0.0010	04/27/23 20:12	
EPA 6020	Arsenic	0.0012	mg/L	0.0010	04/27/23 20:12	
EPA 6020	Barium	0.045	mg/L	0.0010	04/27/23 20:12	
EPA 6020	Cadmium	0.000039J	mg/L	0.00020	04/27/23 20:12	
EPA 6020	Chromium	0.00028J	mg/L	0.0020	04/27/23 20:12	
EPA 6020	Cobalt	0.0082	mg/L	0.0010	04/27/23 20:12	
EPA 6020	Molybdenum	0.0077	mg/L	0.0010	04/27/23 20:12	
EPA 6020	Selenium	0.0018	mg/L	0.0010	04/27/23 20:12	
SM 2540C	Total Dissolved Solids	478	mg/L	10.0	04/27/23 09:10	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/08/23 13:03	H3
50342912002	**GAMW-56B-042123**					
EPA 9056	Chloride	67.9	mg/L	2.5	05/04/23 09:14	
EPA 9056	Fluoride	0.46	mg/L	0.050	05/04/23 08:57	
EPA 9056	Sulfate	330	mg/L	2.5	05/04/23 09:14	
EPA 6010	Boron	3.1	mg/L	0.10	05/04/23 10:25	
EPA 6010	Calcium	180	mg/L	1.0	05/04/23 10:25	
EPA 6020	Arsenic	0.0012	mg/L	0.0010	04/27/23 20:15	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342912002	**GAMW-56B-042123**					
EPA 6020	Barium	0.079	mg/L	0.0010	04/27/23 20:15	
EPA 6020	Chromium	0.00040J	mg/L	0.0020	04/27/23 20:15	
EPA 6020	Cobalt	0.00026J	mg/L	0.0010	04/27/23 20:15	
EPA 6020	Molybdenum	0.011	mg/L	0.0010	04/27/23 20:15	
SM 2540C	Total Dissolved Solids	903	mg/L	10.0	04/27/23 09:11	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/08/23 13:04	H3
50343032001	**GAMW-53-042423**					
EPA 9056	Chloride	2.0	mg/L	0.25	05/06/23 08:14	
EPA 9056	Sulfate	37.2	mg/L	0.25	05/06/23 08:14	
EPA 6010	Boron	0.083J	mg/L	0.10	05/04/23 11:20	
EPA 6010	Calcium	28.9	mg/L	1.0	05/04/23 11:20	
EPA 6020	Antimony	0.00031J	mg/L	0.0010	05/03/23 00:14	
EPA 6020	Arsenic	0.0011	mg/L	0.0010	05/03/23 00:14	
EPA 6020	Barium	0.016	mg/L	0.0010	05/03/23 00:14	
EPA 6020	Cadmium	0.000027J	mg/L	0.00020	05/03/23 00:14	
EPA 6020	Chromium	0.0012J	mg/L	0.0020	05/03/23 00:14	
EPA 6020	Cobalt	0.00038J	mg/L	0.0010	05/03/23 00:14	
EPA 6020	Lead	0.00063J	mg/L	0.0010	05/03/23 00:14	
EPA 6020	Molybdenum	0.0056	mg/L	0.0010	05/03/23 00:14	
EPA 6020	Selenium	0.00075J	mg/L	0.0010	05/03/23 00:14	
EPA 6020	Thallium	0.000042J	mg/L	0.0010	05/03/23 00:14	
SM 2540C	Total Dissolved Solids	147	mg/L	10.0	04/28/23 08:32	
SM 4500-H+B	pH at 25 Degrees C	6.2	Std. Units	0.10	05/08/23 16:42	H3
50343032002	**GAMW-53B-042423**					
EPA 9056	Chloride	130	mg/L	2.5	05/06/23 09:32	
EPA 9056	Fluoride	0.44	mg/L	0.050	05/06/23 09:13	
EPA 9056	Sulfate	524	mg/L	25.0	05/06/23 09:52	
EPA 6010	Boron	5.8	mg/L	0.10	05/04/23 11:23	
EPA 6010	Calcium	225	mg/L	2.0	05/04/23 11:50	
EPA 6020	Arsenic	0.00080J	mg/L	0.0010	05/03/23 00:17	
EPA 6020	Barium	0.084	mg/L	0.0010	05/03/23 00:17	
EPA 6020	Cadmium	0.000017J	mg/L	0.00020	05/03/23 00:17	
EPA 6020	Chromium	0.00024J	mg/L	0.0020	05/03/23 00:17	
EPA 6020	Cobalt	0.00018J	mg/L	0.0010	05/03/23 00:17	
EPA 6020	Molybdenum	0.0077	mg/L	0.0010	05/03/23 00:17	
EPA 6020	Selenium	0.00024J	mg/L	0.0010	05/03/23 00:17	
SM 2540C	Total Dissolved Solids	1300	mg/L	20.0	04/28/23 08:33	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/08/23 16:44	H3
50343172001	**GAMW-52-042523**					
EPA 9056	Chloride	43.0	mg/L	2.5	05/05/23 04:27	
EPA 9056	Fluoride	0.41	mg/L	0.050	05/05/23 04:09	
EPA 9056	Sulfate	56.4	mg/L	2.5	05/05/23 04:27	
EPA 6010	Boron	0.062J	mg/L	0.10	05/08/23 10:00	
EPA 6010	Calcium	64.9	mg/L	1.0	05/08/23 10:00	
EPA 6020	Antimony	0.00015J	mg/L	0.0010	05/03/23 00:20	
EPA 6020	Arsenic	0.00015J	mg/L	0.0010	05/03/23 00:20	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343172001	**GAMW-52-042523**					
EPA 6020	Barium	0.012	mg/L	0.0010	05/03/23 00:20	
EPA 6020	Chromium	0.00027J	mg/L	0.0020	05/03/23 00:20	
EPA 6020	Cobalt	0.00011J	mg/L	0.0010	05/03/23 00:20	
EPA 6020	Molybdenum	0.0037	mg/L	0.0010	05/03/23 00:20	
EPA 6020	Selenium	0.00069J	mg/L	0.0010	05/03/23 00:20	
EPA 6020	Thallium	0.000059J	mg/L	0.0010	05/03/23 00:20	
SM 2540C	Total Dissolved Solids	279	mg/L	10.0	04/29/23 08:22	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 14:50	H3
50343172002	**GAMW-52B-042523**					
EPA 9056	Chloride	199	mg/L	2.5	05/06/23 00:11	
EPA 9056	Fluoride	0.92	mg/L	0.050	05/05/23 23:51	
EPA 9056	Sulfate	62.8	mg/L	2.5	05/06/23 00:11	
EPA 6010	Boron	0.14	mg/L	0.10	05/08/23 10:02	
EPA 6010	Calcium	92.5	mg/L	1.0	05/08/23 10:02	
EPA 6020	Antimony	0.000072J	mg/L	0.0010	05/03/23 00:31	
EPA 6020	Arsenic	0.00050J	mg/L	0.0010	05/03/23 00:31	
EPA 6020	Barium	0.11	mg/L	0.0010	05/03/23 00:31	
EPA 6020	Chromium	0.00032J	mg/L	0.0020	05/03/23 00:31	
EPA 6020	Cobalt	0.000077J	mg/L	0.0010	05/03/23 00:31	
EPA 6020	Lead	0.000036J	mg/L	0.0010	05/03/23 00:31	
EPA 6020	Molybdenum	0.0046	mg/L	0.0010	05/03/23 00:31	
SM 2540C	Total Dissolved Solids	540	mg/L	10.0	04/29/23 08:22	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	05/09/23 14:51	H3
50343172003	**FD-03-042523**					
EPA 9056	Chloride	42.8	mg/L	2.5	05/05/23 05:19	
EPA 9056	Fluoride	0.41	mg/L	0.050	05/05/23 05:01	
EPA 9056	Sulfate	59.1	mg/L	2.5	05/05/23 05:19	
EPA 6010	Calcium	63.6	mg/L	1.0	05/08/23 10:13	
EPA 6020	Antimony	0.00015J	mg/L	0.0010	05/03/23 00:57	
EPA 6020	Arsenic	0.00015J	mg/L	0.0010	05/03/23 00:57	
EPA 6020	Barium	0.012	mg/L	0.0010	05/03/23 00:57	
EPA 6020	Cadmium	0.000011J	mg/L	0.00020	05/03/23 00:57	
EPA 6020	Chromium	0.00025J	mg/L	0.0020	05/03/23 00:57	
EPA 6020	Cobalt	0.00011J	mg/L	0.0010	05/03/23 00:57	
EPA 6020	Molybdenum	0.0036	mg/L	0.0010	05/03/23 00:57	
EPA 6020	Selenium	0.00086J	mg/L	0.0010	05/03/23 00:57	
EPA 6020	Thallium	0.000058J	mg/L	0.0010	05/03/23 00:57	
SM 2540C	Total Dissolved Solids	278	mg/L	10.0	04/29/23 08:23	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/09/23 14:52	H3
50343254001	**GAMW-55B-042623**					
EPA 9056	Chloride	120	mg/L	2.5	05/07/23 10:27	
EPA 9056	Fluoride	0.30	mg/L	0.050	05/07/23 10:07	
EPA 9056	Sulfate	522	mg/L	25.0	05/07/23 10:46	
EPA 6010	Boron	7.4	mg/L	0.10	05/08/23 10:27	
EPA 6010	Calcium	191	mg/L	1.0	05/08/23 10:27	
EPA 6020	Arsenic	0.00023J	mg/L	0.0010	05/03/23 01:01	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343254001	**GAMW-55B-042623**					
EPA 6020	Barium	0.055	mg/L	0.0010	05/03/23 01:01	
EPA 6020	Chromium	0.00027J	mg/L	0.0020	05/03/23 01:01	
EPA 6020	Cobalt	0.00017J	mg/L	0.0010	05/03/23 01:01	
EPA 6020	Lead	0.000036J	mg/L	0.0010	05/03/23 01:01	
EPA 6020	Molybdenum	0.0063	mg/L	0.0010	05/03/23 01:01	
EPA 6020	Selenium	0.00023J	mg/L	0.0010	05/03/23 01:01	
SM 2540C	Total Dissolved Solids	1170	mg/L	10.0	05/01/23 11:02	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	05/09/23 15:37	H3
50343254002	**FB-03-042623**					
EPA 6020	Barium	0.0013	mg/L	0.0010	05/03/23 01:04	C0
EPA 6020	Chromium	0.00018J	mg/L	0.0020	05/03/23 01:04	
SM 4500-H+B	pH at 25 Degrees C	6.0	Std. Units	0.10	05/09/23 15:39	H3
50343255001	**GAMW-54-042623**					
EPA 9056	Chloride	26.2	mg/L	2.5	05/07/23 11:45	
EPA 9056	Fluoride	0.35	mg/L	0.050	05/07/23 11:25	
EPA 9056	Sulfate	273	mg/L	2.5	05/07/23 11:45	
EPA 6010	Boron	0.58	mg/L	0.10	05/08/23 10:32	
EPA 6010	Calcium	145	mg/L	1.0	05/08/23 10:32	
EPA 6020	Antimony	0.00055J	mg/L	0.0010	05/03/23 01:07	
EPA 6020	Arsenic	0.0094	mg/L	0.0010	05/03/23 01:07	
EPA 6020	Barium	0.059	mg/L	0.0010	05/03/23 01:07	
EPA 6020	Cadmium	0.000028J	mg/L	0.00020	05/03/23 01:07	
EPA 6020	Chromium	0.00060J	mg/L	0.0020	05/03/23 01:07	
EPA 6020	Cobalt	0.00065J	mg/L	0.0010	05/03/23 01:07	
EPA 6020	Lead	0.00011J	mg/L	0.0010	05/03/23 01:07	
EPA 6020	Molybdenum	0.016	mg/L	0.0010	05/03/23 01:07	
EPA 6020	Selenium	0.0035	mg/L	0.0010	05/03/23 01:07	
EPA 6020	Thallium	0.00011J	mg/L	0.0010	05/03/23 01:07	
SM 2540C	Total Dissolved Solids	705	mg/L	10.0	05/01/23 11:03	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	05/09/23 15:41	H3
50343255002	**GAMW-54B-042623**					
EPA 9056	Chloride	121	mg/L	2.5	05/07/23 13:22	
EPA 9056	Fluoride	0.55	mg/L	0.050	05/07/23 13:03	
EPA 9056	Sulfate	465	mg/L	2.5	05/07/23 13:22	
EPA 6010	Boron	4.1	mg/L	0.10	05/08/23 10:35	
EPA 6010	Calcium	192	mg/L	1.0	05/08/23 10:35	
EPA 6020	Arsenic	0.0036	mg/L	0.0010	05/03/23 01:11	
EPA 6020	Barium	0.065	mg/L	0.0010	05/03/23 01:11	
EPA 6020	Chromium	0.00028J	mg/L	0.0020	05/03/23 01:11	
EPA 6020	Cobalt	0.00017J	mg/L	0.0010	05/03/23 01:11	
EPA 6020	Lead	0.000062J	mg/L	0.0010	05/03/23 01:11	
EPA 6020	Molybdenum	0.023	mg/L	0.0010	05/03/23 01:11	
SM 2540C	Total Dissolved Solids	1070	mg/L	10.0	05/01/23 11:03	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/09/23 15:46	H3

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343255003	**GAMW-55R-042623**					
EPA 9056	Chloride	33.5	mg/L	2.5	05/07/23 14:21	
EPA 9056	Fluoride	0.61	mg/L	0.050	05/07/23 14:01	
EPA 9056	Sulfate	342	mg/L	2.5	05/07/23 14:21	
EPA 6010	Boron	0.88	mg/L	0.10	05/08/23 10:37	
EPA 6010	Calcium	169	mg/L	1.0	05/08/23 10:37	
EPA 6020	Antimony	0.00012J	mg/L	0.0010	05/03/23 01:21	
EPA 6020	Arsenic	0.00024J	mg/L	0.0010	05/03/23 01:21	
EPA 6020	Barium	0.027	mg/L	0.0010	05/03/23 01:21	
EPA 6020	Cadmium	0.000021J	mg/L	0.00020	05/03/23 01:21	
EPA 6020	Chromium	0.00031J	mg/L	0.0020	05/03/23 01:21	
EPA 6020	Cobalt	0.00024J	mg/L	0.0010	05/03/23 01:21	
EPA 6020	Molybdenum	0.022	mg/L	0.0010	05/03/23 01:21	
EPA 6020	Selenium	0.0068	mg/L	0.0010	05/03/23 01:21	
EPA 6020	Thallium	0.000093J	mg/L	0.0010	05/03/23 01:21	
SM 2540C	Total Dissolved Solids	765	mg/L	10.0	05/01/23 11:03	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	05/09/23 15:49	H3
50343612001	**GAMW-68-050123**					
EPA 9056	Chloride	19.5	mg/L	2.5	05/14/23 12:46	
EPA 9056	Fluoride	0.20	mg/L	0.050	05/12/23 21:15	
EPA 9056	Sulfate	64.0	mg/L	2.5	05/14/23 12:46	
EPA 6010	Calcium	62.4	mg/L	1.0	05/12/23 14:55	
EPA 6020	Antimony	0.00020J	mg/L	0.0010	05/10/23 17:26	
EPA 6020	Arsenic	0.0030	mg/L	0.0010	05/10/23 17:26	
EPA 6020	Barium	0.10	mg/L	0.0010	05/10/23 17:26	
EPA 6020	Chromium	0.00029J	mg/L	0.0020	05/10/23 17:26	
EPA 6020	Cobalt	0.00065J	mg/L	0.0010	05/10/23 17:26	
EPA 6020	Lead	0.00030J	mg/L	0.0010	05/10/23 17:26	
EPA 6020	Molybdenum	0.0033	mg/L	0.0010	05/10/23 17:26	
SM 2540C	Total Dissolved Solids	260	mg/L	10.0	05/03/23 14:31	
SM 4500-H+B	pH at 25 Degrees C	8.2	Std. Units	0.10	05/12/23 10:57	H3
50343612002	**GAMW-68B-050123**					
EPA 9056	Chloride	14.6	mg/L	2.5	05/16/23 13:15	
EPA 9056	Fluoride	0.17	mg/L	0.050	05/12/23 22:12	
EPA 9056	Sulfate	71.0	mg/L	2.5	05/16/23 13:15	
EPA 6010	Calcium	47.0	mg/L	1.0	05/12/23 15:06	
EPA 6020	Antimony	0.000085J	mg/L	0.0010	05/10/23 17:29	
EPA 6020	Arsenic	0.00024J	mg/L	0.0010	05/10/23 17:29	
EPA 6020	Barium	0.099	mg/L	0.0010	05/10/23 17:29	
EPA 6020	Chromium	0.00034J	mg/L	0.0020	05/10/23 17:29	
EPA 6020	Cobalt	0.000044J	mg/L	0.0010	05/10/23 17:29	
EPA 6020	Lead	0.000040J	mg/L	0.0010	05/10/23 17:29	
EPA 6020	Molybdenum	0.0021	mg/L	0.0010	05/10/23 17:29	
SM 2540C	Total Dissolved Solids	229	mg/L	10.0	05/03/23 14:31	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	05/12/23 11:00	H3
50343612003	**FB-04-050123**					
EPA 9056	Chloride	0.079J	mg/L	0.25	05/12/23 23:08	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343612003	**FB-04-050123**					
EPA 6020	Antimony	0.000060J	mg/L	0.0010	05/10/23 17:12	
EPA 6020	Barium	0.0023	mg/L	0.0010	05/10/23 17:12	C0
EPA 6020	Chromium	0.00026J	mg/L	0.0020	05/10/23 17:12	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	05/12/23 11:02	H3
50343612004	**FD-04-050123**					
EPA 9056	Chloride	14.4	mg/L	2.5	05/13/23 00:43	
EPA 9056	Fluoride	0.18	mg/L	0.050	05/13/23 00:24	
EPA 9056	Sulfate	70.8	mg/L	2.5	05/13/23 00:43	
EPA 6010	Calcium	48.4	mg/L	1.0	05/12/23 15:11	
EPA 6020	Antimony	0.000074J	mg/L	0.0010	05/10/23 17:32	
EPA 6020	Arsenic	0.00023J	mg/L	0.0010	05/10/23 17:32	
EPA 6020	Barium	0.098	mg/L	0.0010	05/10/23 17:32	
EPA 6020	Cadmium	0.000014J	mg/L	0.00020	05/10/23 17:32	
EPA 6020	Chromium	0.00028J	mg/L	0.0020	05/10/23 17:32	
EPA 6020	Cobalt	0.000043J	mg/L	0.0010	05/10/23 17:32	
EPA 6020	Lead	0.000049J	mg/L	0.0010	05/10/23 17:32	
EPA 6020	Molybdenum	0.0021	mg/L	0.0010	05/10/23 17:32	
SM 2540C	Total Dissolved Solids	202	mg/L	10.0	05/03/23 14:50	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	05/12/23 11:03	H3

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **EPA 9056**
Description: 9056 IC Anions
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
46 samples were analyzed for EPA 9056 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 728551

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50341968001,50341968009

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3343364)
  - Sulfate
- MSD (Lab ID: 3343365)
  - Sulfate

QC Batch: 729724

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50342144002

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3348873)
  - Chloride
- MSD (Lab ID: 3348875)
  - Chloride

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **EPA 9056**
Description: 9056 IC Anions
Client: NiSource_WSP Golder
Date: May 23, 2023

QC Batch: 730064

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50342433005

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3350426)
  - Sulfate
- MSD (Lab ID: 3350427)
  - Sulfate

QC Batch: 731633

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50343240003

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3357544)
  - Chloride

QC Batch: 732630

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50344228001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3362313)
  - Fluoride
- MSD (Lab ID: 3362314)
  - Fluoride

Additional Comments:

Analyte Comments:

QC Batch: 729724

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3348873)
  - Chloride
- MSD (Lab ID: 3348875)
  - Chloride

QC Batch: 730064

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3350426)
  - Sulfate
- MSD (Lab ID: 3350427)
  - Sulfate

QC Batch: 731633

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3357544)
  - Chloride
- MSD (Lab ID: 3357545)
  - Chloride

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
46 samples were analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 729319

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50341419003

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MSD (Lab ID: 3347270)
  - Calcium

QC Batch: 729382

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50342287001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MSD (Lab ID: 3347636)
  - Calcium

QC Batch: 729386

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50342433005

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3347670)

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: May 23, 2023

QC Batch: 729386

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50342433005

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- Calcium

QC Batch: 729393

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50342606001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3347698)
  - Calcium
- MSD (Lab ID: 3347699)
  - Calcium

QC Batch: 730692

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50342776001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MSD (Lab ID: 3353964)
  - Boron
  - Calcium

QC Batch: 732537

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50343612001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3361879)
  - Calcium
- MSD (Lab ID: 3361880)
  - Calcium

Additional Comments:

Analyte Comments:

QC Batch: 731076

2d: Closing CRDL @ 39% recovery ELK 05/08/23

- BLANK (Lab ID: 3355114)
  - Lithium
- GAMW-08-042123 (Lab ID: 50342909001)
  - Lithium
- GAMW-16BR-042123 (Lab ID: 50342909003)
  - Lithium
- LCS (Lab ID: 3355115)
  - Lithium

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
46 samples were analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 729632

C0: Result confirmed by second analysis.

- FB-01-041923 (Lab ID: 50342608006)
  - Barium

QC Batch: 730633

C0: Result confirmed by second analysis.

- FB-03-042623 (Lab ID: 50343254002)
  - Barium

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: NiSource_WSP Golder
Date: May 23, 2023

Analyte Comments:

QC Batch: 732043

C0: Result confirmed by second analysis.

- FB-04-050123 (Lab ID: 50343612003)
  - Barium

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **EPA 7470**
Description: 7470 Mercury
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
46 samples were analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 731914

1d: Closing CRDL 132%. Sample negative for Hg.

- FB-04-050123 (Lab ID: 50343612003)
  - Mercury
- FD-04-050123 (Lab ID: 50343612004)
  - Mercury
- GAMW-68-050123 (Lab ID: 50343612001)
  - Mercury
- GAMW-68B-050123 (Lab ID: 50343612002)
  - Mercury

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
46 samples were analyzed for SM 2540C by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 729698

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-01-041923 (Lab ID: 50342608006)
  - Total Dissolved Solids

QC Batch: 729888

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-02-042023 (Lab ID: 50342776007)
  - Total Dissolved Solids

QC Batch: 730811

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-03-042623 (Lab ID: 50343254002)
  - Total Dissolved Solids

QC Batch: 731396

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-04-050123 (Lab ID: 50343612003)
  - Total Dissolved Solids

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
46 samples were analyzed for SM 4500-H+B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- FB-01-041923 (Lab ID: 50342608006)
- FB-02-042023 (Lab ID: 50342776007)
- FB-03-042623 (Lab ID: 50343254002)
- FB-04-050123 (Lab ID: 50343612003)
- FD-01-041923 (Lab ID: 50342608005)
- FD-02-042023 (Lab ID: 50342776006)
- FD-03-042523 (Lab ID: 50343172003)
- FD-04-050123 (Lab ID: 50343612004)
- GAMW-01-041323 (Lab ID: 50342144001)
- GAMW-01B-041323 (Lab ID: 50342144002)
- GAMW-03-041423 (Lab ID: 50342290001)
- GAMW-03B-041423 (Lab ID: 50342290002)
- GAMW-08-042123 (Lab ID: 50342909001)
- GAMW-08B-042123 (Lab ID: 50342909002)
- GAMW-09-041923 (Lab ID: 50342608001)
- GAMW-09B-041923 (Lab ID: 50342608002)
- GAMW-12-041423 (Lab ID: 50342290003)
- GAMW-12B-041423 (Lab ID: 50342290004)
- GAMW-13-041423 (Lab ID: 50342290005)
- GAMW-13B-041423 (Lab ID: 50342290006)
- GAMW-14-041223 (Lab ID: 50341962001)
- GAMW-14B-041223 (Lab ID: 50341962002)
- GAMW-16BR-042123 (Lab ID: 50342909003)
- GAMW-16R-042023 (Lab ID: 50342776005)
- GAMW-17-041923 (Lab ID: 50342608003)
- GAMW-17B-042023 (Lab ID: 50342776001)
- GAMW-18-041923 (Lab ID: 50342608004)
- GAMW-18B-042023 (Lab ID: 50342776002)
- GAMW-51-041523 (Lab ID: 50342402001)
- GAMW-51B-041523 (Lab ID: 50342402002)
- GAMW-52-042523 (Lab ID: 50343172001)
- GAMW-52B-042523 (Lab ID: 50343172002)
- GAMW-53-042423 (Lab ID: 50343032001)
- GAMW-53B-042423 (Lab ID: 50343032002)
- GAMW-54-042623 (Lab ID: 50343255001)
- GAMW-54B-042623 (Lab ID: 50343255002)
- GAMW-55B-042623 (Lab ID: 50343254001)

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: NiSource_WSP Golder
Date: May 23, 2023

H3: Sample was received or analysis requested beyond the recognized method holding time.
- GAMW-55R-042623 (Lab ID: 50343255003)
- GAMW-56-042123 (Lab ID: 50342912001)
- GAMW-56B-042123 (Lab ID: 50342912002)
- GAMW-59-041523 (Lab ID: 50342402003)
- GAMW-59B-041523 (Lab ID: 50342402004)
- GAMW-60-042023 (Lab ID: 50342776003)
- GAMW-60B-042023 (Lab ID: 50342776004)
- GAMW-68-050123 (Lab ID: 50343612001)
- GAMW-68B-050123 (Lab ID: 50343612002)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-14-041223 **Lab ID: 50341962001** Collected: 04/12/23 13:40 Received: 04/13/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**3.0**	mg/L	0.25	0.067	1		04/23/23 03:48	16887-00-6	
Fluoride	**0.16**	mg/L	0.050	0.017	1		04/23/23 03:48	16984-48-8	
Sulfate	**41.7**	mg/L	0.25	0.085	1		04/23/23 03:48	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.12**	mg/L	0.10	0.038	1	04/22/23 16:43	04/24/23 14:04	7440-42-8	
Calcium	**57.3**	mg/L	1.0	0.16	1	04/22/23 16:43	04/24/23 14:04	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/22/23 16:43	04/24/23 14:04	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00022J**	mg/L	0.0010	0.000036	1	04/16/23 22:30	04/18/23 19:04	7440-36-0	
Arsenic	**0.0093**	mg/L	0.0010	0.000053	1	04/16/23 22:30	04/18/23 19:04	7440-38-2	
Barium	**0.045**	mg/L	0.0010	0.000051	1	04/16/23 22:30	04/18/23 19:04	7440-39-3	
Beryllium	**0.000033J**	mg/L	0.00020	0.000028	1	04/16/23 22:30	04/18/23 19:04	7440-41-7	
Cadmium	**0.000031J**	mg/L	0.00020	0.0000090	1	04/16/23 22:30	04/18/23 19:04	7440-43-9	
Chromium	**0.00096J**	mg/L	0.0020	0.00013	1	04/16/23 22:30	04/18/23 19:04	7440-47-3	
Cobalt	**0.012**	mg/L	0.0010	0.000032	1	04/16/23 22:30	04/18/23 19:04	7440-48-4	
Lead	**0.00025J**	mg/L	0.0010	0.000034	1	04/16/23 22:30	04/18/23 19:04	7439-92-1	
Molybdenum	**0.0056**	mg/L	0.0010	0.000048	1	04/16/23 22:30	04/18/23 19:04	7439-98-7	
Selenium	**0.00055J**	mg/L	0.0010	0.00023	1	04/16/23 22:30	04/18/23 19:04	7782-49-2	
Thallium	**0.000057J**	mg/L	0.0010	0.000033	1	04/16/23 22:30	04/18/23 19:04	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/20/23 19:07	04/21/23 07:43	7439-97-6	F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**201**	mg/L	10.0	10.0	1		04/18/23 08:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.8**	Std. Units	0.10	0.10	1		04/26/23 14:25		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-14B-041223 **Lab ID: 50341962002** Collected: 04/12/23 13:25 Received: 04/13/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**108**	mg/L	2.5	0.67	10		04/23/23 04:35	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		04/23/23 04:19	16984-48-8	
Sulfate	**922**	mg/L	25.0	8.5	100		04/25/23 09:19	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**2.4**	mg/L	0.10	0.038	1	04/22/23 16:43	04/24/23 14:11	7440-42-8	
Calcium	**175**	mg/L	1.0	0.16	1	04/22/23 16:43	04/24/23 14:11	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/22/23 16:43	04/24/23 14:11	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000072J**	mg/L	0.0010	0.000036	1	04/16/23 22:30	04/18/23 19:07	7440-36-0	
Arsenic	**0.00040J**	mg/L	0.0010	0.000053	1	04/16/23 22:30	04/18/23 19:07	7440-38-2	
Barium	**0.064**	mg/L	0.0010	0.000051	1	04/16/23 22:30	04/18/23 19:07	7440-39-3	
Beryllium	**0.000038J**	mg/L	0.00020	0.000028	1	04/16/23 22:30	04/18/23 19:07	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/16/23 22:30	04/18/23 19:07	7440-43-9	
Chromium	**0.00090J**	mg/L	0.0020	0.00013	1	04/16/23 22:30	04/18/23 19:07	7440-47-3	
Cobalt	**0.00026J**	mg/L	0.0010	0.000032	1	04/16/23 22:30	04/18/23 19:07	7440-48-4	
Lead	**0.000038J**	mg/L	0.0010	0.000034	1	04/16/23 22:30	04/18/23 19:07	7439-92-1	
Molybdenum	**0.028**	mg/L	0.0010	0.000048	1	04/16/23 22:30	04/18/23 19:07	7439-98-7	
Selenium	**0.00029J**	mg/L	0.0010	0.00023	1	04/16/23 22:30	04/18/23 19:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/16/23 22:30	04/18/23 19:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/20/23 19:07	04/21/23 07:46	7439-97-6	F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 25 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**3420**	mg/L	40.0	40.0	1		04/18/23 08:26		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		04/26/23 14:22		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-01-041323 **Lab ID: 50342144001** Collected: 04/13/23 11:35 Received: 04/14/23 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**14.8**	mg/L	0.25	0.067	1		04/26/23 16:17	16887-00-6	
Fluoride	**0.34**	mg/L	0.050	0.017	1		04/26/23 16:17	16984-48-8	
Sulfate	**152**	mg/L	2.5	0.85	10		04/26/23 16:32	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**1.0**	mg/L	0.10	0.038	1	04/25/23 07:35	04/26/23 10:37	7440-42-8	
Calcium	**97.3**	mg/L	1.0	0.16	1	04/25/23 07:35	04/26/23 10:37	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 07:35	04/26/23 10:37	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00015J**	mg/L	0.0010	0.000036	1	04/16/23 22:30	04/18/23 19:11	7440-36-0	
Arsenic	**0.0066**	mg/L	0.0010	0.000053	1	04/16/23 22:30	04/18/23 19:11	7440-38-2	
Barium	**0.062**	mg/L	0.0010	0.000051	1	04/16/23 22:30	04/18/23 19:11	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/16/23 22:30	04/18/23 19:11	7440-41-7	
Cadmium	**0.000025J**	mg/L	0.00020	0.0000090	1	04/16/23 22:30	04/18/23 19:11	7440-43-9	
Chromium	**0.00044J**	mg/L	0.0020	0.00013	1	04/16/23 22:30	04/18/23 19:11	7440-47-3	
Cobalt	**0.0027**	mg/L	0.0010	0.000032	1	04/16/23 22:30	04/18/23 19:11	7440-48-4	
Lead	ND	mg/L	0.0010	0.000034	1	04/16/23 22:30	04/18/23 19:11	7439-92-1	
Molybdenum	**0.018**	mg/L	0.0010	0.000048	1	04/16/23 22:30	04/18/23 19:11	7439-98-7	
Selenium	**0.011**	mg/L	0.0010	0.00023	1	04/16/23 22:30	04/18/23 19:11	7782-49-2	
Thallium	**0.000096J**	mg/L	0.0010	0.000033	1	04/16/23 22:30	04/18/23 19:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/20/23 19:07	04/21/23 09:21	7439-97-6	F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**471**	mg/L	10.0	10.0	1		04/19/23 08:39		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		04/26/23 13:06		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-01B-041323 **Lab ID: 50342144002** Collected: 04/13/23 12:50 Received: 04/14/23 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**23.9**	mg/L	0.25	0.067	1		04/26/23 17:04	16887-00-6	
Fluoride	**0.17**	mg/L	0.050	0.017	1		04/26/23 17:04	16984-48-8	
Sulfate	**66.1**	mg/L	2.5	0.85	10		04/26/23 17:23	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.34**	mg/L	0.10	0.038	1	04/25/23 07:35	04/26/23 10:42	7440-42-8	
Calcium	**107**	mg/L	1.0	0.16	1	04/25/23 07:35	04/26/23 10:42	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 07:35	04/26/23 10:42	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000080J**	mg/L	0.0010	0.000036	1	04/16/23 22:30	04/18/23 19:20	7440-36-0	
Arsenic	**0.00030J**	mg/L	0.0010	0.000053	1	04/16/23 22:30	04/18/23 19:20	7440-38-2	
Barium	**0.19**	mg/L	0.0020	0.00010	2	04/16/23 22:30	04/19/23 18:11	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/16/23 22:30	04/18/23 19:20	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/16/23 22:30	04/18/23 19:20	7440-43-9	
Chromium	**0.00045J**	mg/L	0.0020	0.00013	1	04/16/23 22:30	04/18/23 19:20	7440-47-3	
Cobalt	**0.00024J**	mg/L	0.0010	0.000032	1	04/16/23 22:30	04/18/23 19:20	7440-48-4	
Lead	**0.000040J**	mg/L	0.0010	0.000034	1	04/16/23 22:30	04/18/23 19:20	7439-92-1	
Molybdenum	**0.0011**	mg/L	0.0010	0.000048	1	04/16/23 22:30	04/18/23 19:20	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	04/16/23 22:30	04/18/23 19:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/16/23 22:30	04/18/23 19:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/20/23 19:07	04/21/23 09:24	7439-97-6	F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**472**	mg/L	10.0	10.0	1		04/19/23 08:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		04/27/23 08:27		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-03-041423 **Lab ID: 50342290001** Collected: 04/14/23 13:05 Received: 04/17/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.8**	mg/L	0.25	0.067	1		04/29/23 00:55	16887-00-6	
Fluoride	**0.22**	mg/L	0.050	0.017	1		04/29/23 00:55	16984-48-8	
Sulfate	**101**	mg/L	2.5	0.85	10		04/29/23 01:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.25**	mg/L	0.10	0.038	1	04/25/23 15:19	04/26/23 12:30	7440-42-8	
Calcium	**95.4**	mg/L	1.0	0.16	1	04/25/23 15:19	04/26/23 12:30	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 15:19	04/26/23 12:30	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00056J**	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 08:22	7440-36-0	
Arsenic	**0.0027**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 08:22	7440-38-2	
Barium	**0.082**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 08:22	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 08:22	7440-41-7	
Cadmium	**0.000070J**	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 08:22	7440-43-9	
Chromium	**0.00039J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 08:22	7440-47-3	
Cobalt	**0.0015**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 08:22	7440-48-4	
Lead	**0.00016J**	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 08:22	7439-92-1	
Molybdenum	**0.010**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 08:22	7439-98-7	
Selenium	**0.00072J**	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 08:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 08:22	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:01	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**403**	mg/L	10.0	10.0	1		04/19/23 16:52		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		04/27/23 08:49		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-03B-041423 **Lab ID: 50342290002** Collected: 04/14/23 14:30 Received: 04/17/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**25.0**	mg/L	2.5	0.67	10		04/29/23 01:53	16887-00-6	
Fluoride	**0.19**	mg/L	0.050	0.017	1		04/29/23 01:34	16984-48-8	
Sulfate	**111**	mg/L	2.5	0.85	10		04/29/23 01:53	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.35**	mg/L	0.10	0.038	1	04/25/23 15:19	04/26/23 12:33	7440-42-8	
Calcium	**102**	mg/L	1.0	0.16	1	04/25/23 15:19	04/26/23 12:33	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 15:19	04/26/23 12:33	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000086J**	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 08:49	7440-36-0	
Arsenic	**0.00043J**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 08:49	7440-38-2	
Barium	**0.11**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 08:49	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 08:49	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 08:49	7440-43-9	
Chromium	**0.00044J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 08:49	7440-47-3	
Cobalt	**0.00041J**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 08:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 08:49	7439-92-1	
Molybdenum	**0.0065**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 08:49	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 08:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 08:49	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:03	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**465**	mg/L	10.0	10.0	1		04/19/23 16:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		04/27/23 08:49		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-12-041423 **Lab ID: 50342290003** Collected: 04/14/23 12:00 Received: 04/17/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**3.7**	mg/L	0.25	0.067	1		04/29/23 02:13	16887-00-6	
Fluoride	**0.19**	mg/L	0.050	0.017	1		04/29/23 02:13	16984-48-8	
Sulfate	**15.6**	mg/L	0.25	0.085	1		04/29/23 02:13	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.062J**	mg/L	0.10	0.038	1	04/25/23 15:19	04/26/23 12:35	7440-42-8	
Calcium	**87.9**	mg/L	1.0	0.16	1	04/25/23 15:19	04/26/23 12:35	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 15:19	04/26/23 12:35	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00010J**	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 08:53	7440-36-0	
Arsenic	**0.010**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 08:53	7440-38-2	
Barium	**0.087**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 08:53	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 08:53	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 08:53	7440-43-9	
Chromium	**0.00043J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 08:53	7440-47-3	
Cobalt	**0.0022**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 08:53	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 08:53	7439-92-1	
Molybdenum	**0.0046**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 08:53	7439-98-7	
Selenium	**0.00038J**	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 08:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 08:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:06	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**345**	mg/L	10.0	10.0	1		04/19/23 16:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		04/27/23 08:48		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-12B-041423 **Lab ID: 50342290004** Collected: 04/14/23 14:30 Received: 04/17/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**23.9**	mg/L	2.5	0.67	10		04/29/23 03:11	16887-00-6	
Fluoride	**0.094J**	mg/L	0.050	0.017	1		04/29/23 02:52	16984-48-8	
Sulfate	**113**	mg/L	2.5	0.85	10		04/29/23 03:11	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.46**	mg/L	0.10	0.038	1	04/25/23 15:19	04/26/23 12:37	7440-42-8	
Calcium	**95.4**	mg/L	1.0	0.16	1	04/25/23 15:19	04/26/23 12:37	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 15:19	04/26/23 12:37	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 08:56	7440-36-0	
Arsenic	**0.00041J**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 08:56	7440-38-2	
Barium	**0.14**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 08:56	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 08:56	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 08:56	7440-43-9	
Chromium	**0.00030J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 08:56	7440-47-3	
Cobalt	**0.00019J**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 08:56	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 08:56	7439-92-1	
Molybdenum	**0.0027**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 08:56	7439-98-7	
Selenium	**0.00022J**	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 08:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 08:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**448**	mg/L	10.0	10.0	1		04/19/23 16:54		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		04/27/23 08:50		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-13-041423 **Lab ID: 50342290005** Collected: 04/14/23 09:45 Received: 04/17/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.4**	mg/L	0.25	0.067	1		04/29/23 04:10	16887-00-6	
Fluoride	**0.23**	mg/L	0.050	0.017	1		04/29/23 04:10	16984-48-8	
Sulfate	**18.0**	mg/L	0.25	0.085	1		04/29/23 04:10	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.054J**	mg/L	0.10	0.038	1	04/25/23 15:19	04/26/23 12:44	7440-42-8	
Calcium	**61.4**	mg/L	1.0	0.16	1	04/25/23 15:19	04/26/23 12:44	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 15:19	04/26/23 12:44	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00075J**	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 09:06	7440-36-0	
Arsenic	**0.0030**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 09:06	7440-38-2	
Barium	**0.066**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 09:06	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 09:06	7440-41-7	
Cadmium	**0.000069J**	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 09:06	7440-43-9	
Chromium	**0.00044J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 09:06	7440-47-3	
Cobalt	**0.00024J**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 09:06	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 09:06	7439-92-1	
Molybdenum	**0.0041**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 09:06	7439-98-7	
Selenium	**0.00039J**	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 09:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 09:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**217**	mg/L	10.0	10.0	1		04/20/23 09:54		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		04/27/23 08:47		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-13B-041423 **Lab ID: 50342290006** Collected: 04/14/23 11:50 Received: 04/17/23 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**27.4**	mg/L	2.5	0.67	10		04/29/23 05:08	16887-00-6	
Fluoride	**0.27**	mg/L	0.050	0.017	1		04/29/23 04:48	16984-48-8	
Sulfate	**116**	mg/L	2.5	0.85	10		04/29/23 05:08	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.62**	mg/L	0.10	0.038	1	04/25/23 15:19	04/26/23 12:46	7440-42-8	
Calcium	**77.0**	mg/L	1.0	0.16	1	04/25/23 15:19	04/26/23 12:46	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 15:19	04/26/23 12:46	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 09:10	7440-36-0	
Arsenic	**0.0016**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 09:10	7440-38-2	
Barium	**0.087**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 09:10	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 09:10	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 09:10	7440-43-9	
Chromium	**0.00047J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 09:10	7440-47-3	
Cobalt	**0.00015J**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 09:10	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 09:10	7439-92-1	
Molybdenum	**0.014**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 09:10	7439-98-7	
Selenium	**0.00021J**	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 09:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 09:10	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**368**	mg/L	10.0	10.0	1		04/20/23 09:55		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.8**	Std. Units	0.10	0.10	1		04/27/23 08:47		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-51-041523 **Lab ID: 50342402001** Collected: 04/15/23 15:45 Received: 04/18/23 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.3**	mg/L	0.25	0.067	1		04/28/23 12:51	16887-00-6	
Fluoride	**0.32**	mg/L	0.050	0.017	1		04/28/23 12:51	16984-48-8	
Sulfate	**173**	mg/L	2.5	0.85	10		04/28/23 13:09	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.42**	mg/L	0.10	0.038	1	04/25/23 16:10	04/26/23 13:21	7440-42-8	
Calcium	**131**	mg/L	1.0	0.16	1	04/25/23 16:10	04/26/23 13:21	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 16:10	04/26/23 13:21	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00013J**	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 09:13	7440-36-0	
Arsenic	**0.0015**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 09:13	7440-38-2	
Barium	**0.089**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 09:13	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 09:13	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 09:13	7440-43-9	
Chromium	**0.00036J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 09:13	7440-47-3	
Cobalt	**0.0042**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 09:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 09:13	7439-92-1	
Molybdenum	**0.0074**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 09:13	7439-98-7	
Selenium	**0.00035J**	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 09:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 09:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**523**	mg/L	10.0	10.0	1		04/20/23 09:55		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		04/27/23 09:47		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-51B-041523 **Lab ID: 50342402002** Collected: 04/15/23 16:50 Received: 04/18/23 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**46.5**	mg/L	2.5	0.67	10		04/28/23 13:46	16887-00-6	
Fluoride	**1.0**	mg/L	0.050	0.017	1		04/28/23 13:27	16984-48-8	
Sulfate	**1230**	mg/L	25.0	8.5	100		04/29/23 21:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**7.1**	mg/L	0.10	0.038	1	04/25/23 16:10	04/26/23 13:24	7440-42-8	
Calcium	**209**	mg/L	2.0	0.33	2	04/25/23 16:10	04/26/23 15:10	7440-70-2	
Lithium	**0.066**	mg/L	0.010	0.0062	1	04/25/23 16:10	04/26/23 13:24	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000087J**	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 09:17	7440-36-0	
Arsenic	**0.0041**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 09:17	7440-38-2	
Barium	**0.056**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 09:17	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 09:17	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 09:17	7440-43-9	
Chromium	**0.00059J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 09:17	7440-47-3	
Cobalt	**0.00032J**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 09:17	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 09:17	7439-92-1	
Molybdenum	**0.13**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 09:17	7439-98-7	
Selenium	**0.00048J**	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 09:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 09:17	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:28	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 25 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1930**	mg/L	40.0	40.0	1		04/20/23 09:56		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		04/27/23 09:50		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-59-041523 **Lab ID: 50342402003** Collected: 04/15/23 18:10 Received: 04/18/23 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.5**	mg/L	0.25	0.067	1		04/28/23 14:04	16887-00-6	
Fluoride	**0.70**	mg/L	0.050	0.017	1		04/28/23 14:04	16984-48-8	
Sulfate	**554**	mg/L	25.0	8.5	100		04/29/23 21:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.61**	mg/L	0.10	0.038	1	04/25/23 16:10	04/26/23 13:26	7440-42-8	
Calcium	**256**	mg/L	2.0	0.33	2	04/25/23 16:10	04/26/23 14:49	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/25/23 16:10	04/26/23 13:26	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000086J**	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 09:20	7440-36-0	
Arsenic	**0.00083J**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 09:20	7440-38-2	
Barium	**0.079**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 09:20	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 09:20	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 09:20	7440-43-9	
Chromium	**0.00029J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 09:20	7440-47-3	
Cobalt	**0.0010**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 09:20	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 09:20	7439-92-1	
Molybdenum	**0.028**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 09:20	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 09:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 09:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:30	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1020**	mg/L	20.0	20.0	1		04/20/23 09:56		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		04/27/23 09:51		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-59B-041523 **Lab ID: 50342402004** Collected: 04/15/23 19:05 Received: 04/18/23 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**66.4**	mg/L	2.5	0.67	10		04/28/23 15:58	16887-00-6	
Fluoride	**0.50**	mg/L	0.050	0.017	1		04/28/23 14:41	16984-48-8	
Sulfate	**858**	mg/L	25.0	8.5	100		04/29/23 22:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**5.7**	mg/L	0.10	0.038	1	04/25/23 16:10	04/26/23 13:28	7440-42-8	
Calcium	**155**	mg/L	1.0	0.16	1	04/25/23 16:10	04/26/23 13:28	7440-70-2	
Lithium	**0.010**	mg/L	0.010	0.0062	1	04/25/23 16:10	04/26/23 13:28	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/23/23 21:30	04/26/23 09:24	7440-36-0	
Arsenic	**0.00090J**	mg/L	0.0010	0.00012	1	04/23/23 21:30	04/26/23 09:24	7440-38-2	
Barium	**0.031**	mg/L	0.0010	0.000065	1	04/23/23 21:30	04/26/23 09:24	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/23/23 21:30	04/26/23 09:24	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/23/23 21:30	04/26/23 09:24	7440-43-9	
Chromium	**0.00060J**	mg/L	0.0020	0.00018	1	04/23/23 21:30	04/26/23 09:24	7440-47-3	
Cobalt	**0.00034J**	mg/L	0.0010	0.000071	1	04/23/23 21:30	04/26/23 09:24	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/23/23 21:30	04/26/23 09:24	7439-92-1	
Molybdenum	**0.080**	mg/L	0.0010	0.000074	1	04/23/23 21:30	04/26/23 09:24	7439-98-7	
Selenium	**0.00030J**	mg/L	0.0010	0.00019	1	04/23/23 21:30	04/26/23 09:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/23/23 21:30	04/26/23 09:24	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	04/26/23 09:40	04/26/23 22:33	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 25 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1670**	mg/L	40.0	40.0	1		04/21/23 08:22		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		04/27/23 09:52		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-09-041923 **Lab ID: 50342608001** Collected: 04/19/23 10:20 Received: 04/20/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**28.5**	mg/L	2.5	0.67	10		04/29/23 17:27	16887-00-6	
Fluoride	**0.25**	mg/L	0.050	0.017	1		04/29/23 17:09	16984-48-8	
Sulfate	**416**	mg/L	2.5	0.85	10		04/29/23 17:27	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**2.3**	mg/L	0.10	0.038	1	04/28/23 07:45	04/29/23 14:27	7440-42-8	
Calcium	**175**	mg/L	1.0	0.16	1	04/28/23 07:45	04/29/23 14:27	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/28/23 07:45	04/29/23 14:27	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00013J**	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 18:19	7440-36-0	
Arsenic	**0.00019J**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 18:19	7440-38-2	
Barium	**0.053**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 18:19	7440-39-3	
Beryllium	**0.00082**	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/27/23 18:19	7440-41-7	
Cadmium	**0.00025**	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 18:19	7440-43-9	
Chromium	**0.00085J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 18:19	7440-47-3	
Cobalt	**0.0015**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 18:19	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 18:19	7439-92-1	
Molybdenum	**0.031**	mg/L	0.0020	0.00015	2	04/25/23 21:44	04/28/23 04:17	7439-98-7	
Selenium	**0.0050**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 18:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 18:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:25	05/02/23 16:21	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**778**	mg/L	10.0	10.0	1		04/25/23 11:31		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/02/23 15:32		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-09B-041923 **Lab ID: 50342608002** Collected: 04/19/23 12:05 Received: 04/20/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**100**	mg/L	2.5	0.67	10		04/29/23 18:23	16887-00-6	
Fluoride	**0.84**	mg/L	0.050	0.017	1		04/29/23 18:04	16984-48-8	
Sulfate	**756**	mg/L	25.0	8.5	100		04/29/23 18:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**7.7**	mg/L	0.10	0.038	1	04/28/23 07:45	04/29/23 14:29	7440-42-8	
Calcium	**249**	mg/L	2.0	0.33	2	04/28/23 07:45	04/29/23 15:01	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/28/23 07:45	04/29/23 14:29	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 18:22	7440-36-0	
Arsenic	**0.0023**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 18:22	7440-38-2	
Barium	**0.045**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 18:22	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/27/23 18:22	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 18:22	7440-43-9	
Chromium	**0.00024J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 18:22	7440-47-3	
Cobalt	**0.00071J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 18:22	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 18:22	7439-92-1	
Molybdenum	**0.015**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 18:22	7439-98-7	
Selenium	**0.00024J**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 18:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 18:22	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:25	05/02/23 16:23	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1370**	mg/L	20.0	20.0	1		04/25/23 11:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/02/23 15:34		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-17-041923 **Lab ID: 50342608003** Collected: 04/19/23 13:40 Received: 04/20/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**125**	mg/L	2.5	0.67	10		04/29/23 20:13	16887-00-6	
Fluoride	**1.2**	mg/L	0.050	0.017	1		04/29/23 19:55	16984-48-8	
Sulfate	**559**	mg/L	25.0	8.5	100		04/29/23 20:32	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**11.2**	mg/L	0.10	0.038	1	04/28/23 07:45	04/29/23 14:31	7440-42-8	
Calcium	**260**	mg/L	2.0	0.33	2	04/28/23 07:45	04/29/23 15:04	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/28/23 07:45	04/29/23 14:31	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00021J**	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 18:26	7440-36-0	
Arsenic	**0.0017**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 18:26	7440-38-2	
Barium	**0.070**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 18:26	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/27/23 18:26	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 18:26	7440-43-9	
Chromium	**0.00039J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 18:26	7440-47-3	
Cobalt	**0.00033J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 18:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 18:26	7439-92-1	
Molybdenum	**0.010**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 18:26	7439-98-7	
Selenium	**0.0016**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 18:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 18:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:25	05/02/23 16:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1160**	mg/L	20.0	20.0	1		04/25/23 11:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		05/02/23 15:35		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-18-041923 **Lab ID: 50342608004** Collected: 04/19/23 13:40 Received: 04/20/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**44.6**	mg/L	2.5	0.67	10		04/29/23 21:08	16887-00-6	
Fluoride	**0.12**	mg/L	0.050	0.017	1		04/29/23 20:50	16984-48-8	
Sulfate	**1230**	mg/L	25.0	8.5	100		04/29/23 21:27	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**3.5**	mg/L	0.10	0.038	1	04/28/23 07:45	04/29/23 14:34	7440-42-8	
Calcium	**480**	mg/L	5.0	0.82	5	04/28/23 07:45	04/29/23 15:06	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/28/23 07:45	04/29/23 14:34	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00012J**	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 18:29	7440-36-0	
Arsenic	**0.00095J**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 18:29	7440-38-2	
Barium	**0.040**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 18:29	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/27/23 18:29	7440-41-7	
Cadmium	**0.000091J**	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 18:29	7440-43-9	
Chromium	**0.00097J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 18:29	7440-47-3	
Cobalt	**0.00096J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 18:29	7440-48-4	
Lead	**0.00068J**	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 18:29	7439-92-1	
Molybdenum	**0.16**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 18:29	7439-98-7	
Selenium	**0.063**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 18:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 18:29	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:25	05/02/23 16:33	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2060**	mg/L	20.0	20.0	1		04/25/23 11:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/02/23 15:37		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: FD-01-041923 **Lab ID: 50342608005** Collected: 04/19/23 12:00 Received: 04/20/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**103**	mg/L	2.5	0.67	10		04/29/23 22:04	16887-00-6	
Fluoride	**0.85**	mg/L	0.050	0.017	1		04/29/23 21:45	16984-48-8	
Sulfate	**734**	mg/L	25.0	8.5	100		04/29/23 22:22	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**7.9**	mg/L	0.10	0.038	1	04/28/23 07:45	04/29/23 14:36	7440-42-8	
Calcium	**252**	mg/L	2.0	0.33	2	04/28/23 07:45	04/29/23 15:08	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/28/23 07:45	04/29/23 14:36	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 18:43	7440-36-0	
Arsenic	**0.0022**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 18:43	7440-38-2	
Barium	**0.044**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 18:43	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/27/23 18:43	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 18:43	7440-43-9	
Chromium	**0.00022J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 18:43	7440-47-3	
Cobalt	**0.00069J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 18:43	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 18:43	7439-92-1	
Molybdenum	**0.015**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 18:43	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 18:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 18:43	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:25	05/02/23 16:35	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1360**	mg/L	20.0	20.0	1		04/25/23 11:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		05/02/23 15:40		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: FB-01-041923 **Lab ID: 50342608006** Collected: 04/19/23 13:45 Received: 04/20/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.086J**	mg/L	0.25	0.067	1		04/29/23 23:17	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		04/29/23 23:17	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		04/29/23 23:17	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.038	1	04/28/23 07:45	04/29/23 14:39	7440-42-8	
Calcium	ND	mg/L	1.0	0.16	1	04/28/23 07:45	04/29/23 14:39	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	04/28/23 07:45	04/29/23 14:39	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 18:46	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 18:46	7440-38-2	
Barium	**0.0011**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 18:46	7440-39-3	C0
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/27/23 18:46	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 18:46	7440-43-9	
Chromium	**0.00028J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 18:46	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 18:46	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 18:46	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 18:46	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 18:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 18:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:25	05/02/23 16:43	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		04/25/23 11:42		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		05/02/23 15:41		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-17B-042023 **Lab ID: 50342776001** Collected: 04/20/23 10:25 Received: 04/21/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**134**	mg/L	2.5	0.67	10		04/30/23 02:40	16887-00-6	
Fluoride	**0.56**	mg/L	0.050	0.017	1		04/30/23 02:22	16984-48-8	
Sulfate	**553**	mg/L	25.0	8.5	100		04/30/23 02:59	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**9.8**	mg/L	0.10	0.038	1	05/02/23 08:33	05/03/23 13:17	7440-42-8	
Calcium	**225**	mg/L	2.0	0.33	2	05/02/23 08:33	05/03/23 14:09	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/02/23 08:33	05/03/23 13:17	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 18:50	7440-36-0	
Arsenic	**0.0031**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 18:50	7440-38-2	
Barium	**0.064**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 18:50	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/27/23 18:50	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 18:50	7440-43-9	
Chromium	**0.00029J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 18:50	7440-47-3	
Cobalt	**0.00028J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 18:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 18:50	7439-92-1	
Molybdenum	**0.013**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 18:50	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 18:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 18:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 08:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1320**	mg/L	20.0	20.0	1		04/26/23 09:02		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/05/23 11:47		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-18B-042023 **Lab ID: 50342776002** Collected: 04/20/23 10:05 Received: 04/21/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**138**	mg/L	2.5	0.67	10		04/30/23 06:03	16887-00-6	
Fluoride	**1.1**	mg/L	0.050	0.017	1		04/30/23 05:44	16984-48-8	
Sulfate	**705**	mg/L	25.0	8.5	100		04/30/23 06:21	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**11.3**	mg/L	0.10	0.038	1	05/02/23 08:33	05/03/23 13:32	7440-42-8	
Calcium	**332**	mg/L	2.0	0.33	2	05/02/23 08:33	05/03/23 14:16	7440-70-2	
Lithium	**0.021**	mg/L	0.010	0.0062	1	05/02/23 08:33	05/03/23 13:32	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:13	7440-36-0	
Arsenic	**0.0021**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:13	7440-38-2	
Barium	**0.030**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:13	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/27/23 19:13	7440-41-7	
Cadmium	**0.000017J**	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:13	7440-43-9	
Chromium	**0.00033J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 19:13	7440-47-3	
Cobalt	**0.00044J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:13	7439-92-1	
Molybdenum	**0.0097**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 19:13	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:00	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1990**	mg/L	20.0	20.0	1		04/26/23 09:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/05/23 11:49		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-60-042023 **Lab ID: 50342776003** Collected: 04/20/23 11:15 Received: 04/21/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**13.9**	mg/L	0.25	0.067	1		04/30/23 07:17	16887-00-6	
Fluoride	**0.50**	mg/L	0.050	0.017	1		04/30/23 07:17	16984-48-8	
Sulfate	**826**	mg/L	25.0	8.5	100		04/30/23 07:53	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**1.2**	mg/L	0.10	0.038	1	05/02/23 08:33	05/03/23 13:35	7440-42-8	
Calcium	**385**	mg/L	3.0	0.49	3	05/02/23 08:33	05/03/23 14:18	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/02/23 08:33	05/03/23 13:35	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00016J**	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:27	7440-36-0	
Arsenic	**0.00035J**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:27	7440-38-2	
Barium	**0.030**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:27	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:09	7440-41-7	
Cadmium	**0.000040J**	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:27	7440-43-9	
Chromium	**0.00036J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/28/23 08:09	7440-47-3	
Cobalt	**0.0015**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:27	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:27	7439-92-1	
Molybdenum	**0.014**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 19:27	7439-98-7	
Selenium	**0.0055**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:27	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:02	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1480**	mg/L	20.0	20.0	1		04/26/23 09:09		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/05/23 11:50		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-60B-042023 **Lab ID: 50342776004** Collected: 04/20/23 12:25 Received: 04/21/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**12.1**	mg/L	0.25	0.067	1		04/30/23 08:12	16887-00-6	
Fluoride	**0.54**	mg/L	0.050	0.017	1		04/30/23 08:12	16984-48-8	
Sulfate	**1050**	mg/L	25.0	8.5	100		04/30/23 08:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**7.1**	mg/L	0.10	0.038	1	05/02/23 08:33	05/03/23 13:37	7440-42-8	
Calcium	**402**	mg/L	3.0	0.49	3	05/02/23 08:33	05/03/23 14:48	7440-70-2	
Lithium	**0.077**	mg/L	0.010	0.0062	1	05/02/23 08:33	05/03/23 13:37	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:31	7440-36-0	
Arsenic	**0.00020J**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:31	7440-38-2	
Barium	**0.066**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:31	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:05	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:31	7440-43-9	
Chromium	**0.00044J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/28/23 08:05	7440-47-3	
Cobalt	**0.00054J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:31	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:31	7439-92-1	
Molybdenum	**0.24**	mg/L	0.0020	0.00015	2	04/25/23 21:44	04/28/23 04:24	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:05	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1880**	mg/L	20.0	20.0	1		04/26/23 09:09		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/05/23 11:51		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-16R-042023 **Lab ID: 50342776005** Collected: 04/20/23 13:55 Received: 04/21/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**41.7**	mg/L	2.5	0.67	10		04/30/23 09:26	16887-00-6	
Fluoride	**0.58**	mg/L	0.050	0.017	1		04/30/23 09:07	16984-48-8	
Sulfate	**549**	mg/L	25.0	8.5	100		04/30/23 09:44	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**2.9**	mg/L	0.10	0.038	1	05/02/23 08:33	05/03/23 13:39	7440-42-8	
Calcium	**256**	mg/L	2.0	0.33	2	05/02/23 08:33	05/03/23 14:50	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/02/23 08:33	05/03/23 13:39	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:34	7440-36-0	
Arsenic	**0.0050**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:34	7440-38-2	
Barium	**0.042**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:34	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:12	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:34	7440-43-9	
Chromium	**0.00024J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/28/23 08:12	7440-47-3	
Cobalt	**0.0026**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:34	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:34	7439-92-1	
Molybdenum	**0.053**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 19:34	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:34	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:07	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1080**	mg/L	20.0	20.0	1		04/26/23 09:10		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/05/23 11:51		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: FD-02-042023 **Lab ID: 50342776006** Collected: 04/20/23 12:00 Received: 04/21/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**13.8**	mg/L	0.25	0.067	1		04/30/23 10:39	16887-00-6	
Fluoride	**0.50**	mg/L	0.050	0.017	1		04/30/23 10:39	16984-48-8	
Sulfate	**859**	mg/L	25.0	8.5	100		04/30/23 11:16	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**1.2**	mg/L	0.10	0.038	1	05/02/23 08:33	05/03/23 13:41	7440-42-8	
Calcium	**389**	mg/L	3.0	0.49	3	05/02/23 08:33	05/03/23 14:53	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/02/23 08:33	05/03/23 13:41	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00015J**	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:37	7440-36-0	
Arsenic	**0.00038J**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:37	7440-38-2	
Barium	**0.030**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:37	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:15	7440-41-7	
Cadmium	**0.000040J**	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:37	7440-43-9	
Chromium	**0.00029J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/28/23 08:15	7440-47-3	
Cobalt	**0.0016**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:37	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:37	7439-92-1	
Molybdenum	**0.014**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 19:37	7439-98-7	
Selenium	**0.0057**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:09	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1490**	mg/L	20.0	20.0	1		04/26/23 09:10		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/05/23 11:53		H3

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: FB-02-042023 **Lab ID: 50342776007** Collected: 04/20/23 12:30 Received: 04/21/23 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.071J**	mg/L	0.25	0.067	1		04/30/23 11:35	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		04/30/23 11:35	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		04/30/23 11:35	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.038	1	05/02/23 08:33	05/03/23 13:44	7440-42-8	
Calcium	ND	mg/L	1.0	0.16	1	05/02/23 08:33	05/03/23 13:44	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/02/23 08:33	05/03/23 13:44	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:48	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:48	7440-38-2	
Barium	**0.00086J**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:48	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:19	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:48	7440-43-9	
Chromium	**0.00029J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/28/23 08:19	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:48	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:48	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 19:48	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:12	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		04/26/23 09:10		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.3**	Std. Units	0.10	0.10	1		05/05/23 11:55		H3

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(317)228-3100

ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-08-042123 **Lab ID: 50342909001** Collected: 04/21/23 09:55 Received: 04/22/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**62.7**	mg/L	2.5	0.67	10		05/04/23 06:55	16887-00-6	
Fluoride	**1.8**	mg/L	0.050	0.017	1		05/04/23 06:38	16984-48-8	
Sulfate	**550**	mg/L	25.0	8.5	100		05/04/23 17:59	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**1.5**	mg/L	0.10	0.061	1	05/03/23 09:40	05/04/23 10:11	7440-42-8	
Calcium	**298**	mg/L	2.0	0.18	2	05/03/23 09:40	05/04/23 11:38	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/03/23 09:40	05/05/23 10:06	7439-93-2	2d
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00064J**	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:51	7440-36-0	
Arsenic	**0.0023**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:51	7440-38-2	
Barium	**0.047**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:51	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:33	7440-41-7	
Cadmium	**0.00011J**	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:51	7440-43-9	
Chromium	**0.00048J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/28/23 08:33	7440-47-3	
Cobalt	**0.0032**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:51	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:51	7439-92-1	
Molybdenum	**0.065**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 19:51	7439-98-7	
Selenium	**0.017**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:51	7782-49-2	
Thallium	**0.000067J**	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:51	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:19	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1480**	mg/L	20.0	20.0	1		04/27/23 09:09		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/08/23 12:59		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-08B-042123 **Lab ID: 50342909002** Collected: 04/21/23 10:50 Received: 04/22/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**187**	mg/L	2.5	0.67	10		05/04/23 18:17	16887-00-6	
Fluoride	**1.3**	mg/L	0.050	0.017	1		05/04/23 07:12	16984-48-8	
Sulfate	**1060**	mg/L	25.0	8.5	100		05/04/23 18:34	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**11.7**	mg/L	0.10	0.061	1	05/03/23 09:40	05/04/23 10:18	7440-42-8	
Calcium	**230**	mg/L	2.0	0.18	2	05/03/23 09:40	05/04/23 11:45	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/03/23 09:40	05/04/23 10:18	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:55	7440-36-0	
Arsenic	**0.00031J**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:55	7440-38-2	
Barium	**0.055**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:55	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:36	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:55	7440-43-9	
Chromium	**0.00023J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/28/23 08:36	7440-47-3	
Cobalt	**0.00038J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:55	7439-92-1	
Molybdenum	**0.011**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 19:55	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:27	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2050**	mg/L	20.0	20.0	1		04/27/23 09:09		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/08/23 13:01		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-16BR-042123 **Lab ID: 50342909003** Collected: 04/21/23 09:40 Received: 04/22/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**392**	mg/L	25.0	6.7	100		05/04/23 19:26	16887-00-6	
Fluoride	**0.63**	mg/L	0.050	0.017	1		05/04/23 07:47	16984-48-8	
Sulfate	**2360**	mg/L	25.0	8.5	100		05/04/23 19:26	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**22.3**	mg/L	0.10	0.061	1	05/03/23 09:40	05/04/23 10:20	7440-42-8	
Calcium	**522**	mg/L	5.0	0.44	5	05/03/23 09:40	05/04/23 11:47	7440-70-2	
Lithium	**0.021**	mg/L	0.010	0.0062	1	05/03/23 09:40	05/05/23 10:08	7439-93-2	2d
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 19:58	7440-36-0	
Arsenic	**0.0016**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 19:58	7440-38-2	
Barium	**0.053**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 19:58	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:40	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 19:58	7440-43-9	
Chromium	**0.00056J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/28/23 08:40	7440-47-3	
Cobalt	**0.00082J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 19:58	7440-48-4	
Lead	**0.000083J**	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 19:58	7439-92-1	
Molybdenum	**0.012**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 19:58	7439-98-7	
Selenium	**0.00073J**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 19:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 19:58	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:29	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 25 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**4420**	mg/L	40.0	40.0	1		04/27/23 09:10		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		05/08/23 13:02		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-56-042123 **Lab ID: 50342912001** Collected: 04/21/23 10:55 Received: 04/22/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**7.5**	mg/L	0.25	0.067	1		05/04/23 08:22	16887-00-6	
Fluoride	**0.47**	mg/L	0.050	0.017	1		05/04/23 08:22	16984-48-8	
Sulfate	**63.9**	mg/L	2.5	0.85	10		05/04/23 08:40	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.29**	mg/L	0.10	0.061	1	05/03/23 09:40	05/04/23 10:23	7440-42-8	
Calcium	**118**	mg/L	1.0	0.088	1	05/03/23 09:40	05/04/23 10:23	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/03/23 09:40	05/04/23 10:23	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00017J**	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 20:12	7440-36-0	
Arsenic	**0.0012**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 20:12	7440-38-2	
Barium	**0.045**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 20:12	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:43	7440-41-7	
Cadmium	**0.000039J**	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 20:12	7440-43-9	
Chromium	**0.00028J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 20:12	7440-47-3	
Cobalt	**0.0082**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 20:12	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 20:12	7439-92-1	
Molybdenum	**0.0077**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 20:12	7439-98-7	
Selenium	**0.0018**	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 20:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 20:12	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**478**	mg/L	10.0	10.0	1		04/27/23 09:10		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/08/23 13:03		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-56B-042123 **Lab ID: 50342912002** Collected: 04/21/23 13:30 Received: 04/22/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**67.9**	mg/L	2.5	0.67	10		05/04/23 09:14	16887-00-6	
Fluoride	**0.46**	mg/L	0.050	0.017	1		05/04/23 08:57	16984-48-8	
Sulfate	**330**	mg/L	2.5	0.85	10		05/04/23 09:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**3.1**	mg/L	0.10	0.061	1	05/03/23 09:40	05/04/23 10:25	7440-42-8	
Calcium	**180**	mg/L	1.0	0.088	1	05/03/23 09:40	05/04/23 10:25	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/03/23 09:40	05/04/23 10:25	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	04/25/23 21:44	04/27/23 20:15	7440-36-0	
Arsenic	**0.0012**	mg/L	0.0010	0.00012	1	04/25/23 21:44	04/27/23 20:15	7440-38-2	
Barium	**0.079**	mg/L	0.0010	0.000065	1	04/25/23 21:44	04/27/23 20:15	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	04/25/23 21:44	04/28/23 08:47	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	04/25/23 21:44	04/27/23 20:15	7440-43-9	
Chromium	**0.00040J**	mg/L	0.0020	0.00018	1	04/25/23 21:44	04/27/23 20:15	7440-47-3	
Cobalt	**0.00026J**	mg/L	0.0010	0.000071	1	04/25/23 21:44	04/27/23 20:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	04/25/23 21:44	04/27/23 20:15	7439-92-1	
Molybdenum	**0.011**	mg/L	0.0010	0.000074	1	04/25/23 21:44	04/27/23 20:15	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	04/25/23 21:44	04/27/23 20:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/25/23 21:44	04/27/23 20:15	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	04/30/23 21:35	05/01/23 09:34	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**903**	mg/L	10.0	10.0	1		04/27/23 09:11		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/08/23 13:04		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-53-042423 **Lab ID: 50343032001** Collected: 04/24/23 11:05 Received: 04/25/23 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.0**	mg/L	0.25	0.067	1		05/06/23 08:14	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		05/06/23 08:14	16984-48-8	
Sulfate	**37.2**	mg/L	0.25	0.085	1		05/06/23 08:14	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.083J**	mg/L	0.10	0.061	1	05/03/23 09:40	05/04/23 11:20	7440-42-8	
Calcium	**28.9**	mg/L	1.0	0.088	1	05/03/23 09:40	05/04/23 11:20	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/03/23 09:40	05/04/23 11:20	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00031J**	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 00:14	7440-36-0	
Arsenic	**0.0011**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 00:14	7440-38-2	
Barium	**0.016**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 00:14	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 00:14	7440-41-7	
Cadmium	**0.000027J**	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 00:14	7440-43-9	
Chromium	**0.0012J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 00:14	7440-47-3	
Cobalt	**0.00038J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 00:14	7440-48-4	
Lead	**0.00063J**	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 00:14	7439-92-1	
Molybdenum	**0.0056**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 00:14	7439-98-7	
Selenium	**0.00075J**	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 00:14	7782-49-2	
Thallium	**0.000042J**	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 00:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 11:04	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**147**	mg/L	10.0	10.0	1		04/28/23 08:32		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.2**	Std. Units	0.10	0.10	1		05/08/23 16:42		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-53B-042423 **Lab ID: 50343032002** Collected: 04/24/23 12:50 Received: 04/25/23 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**130**	mg/L	2.5	0.67	10		05/06/23 09:32	16887-00-6	
Fluoride	**0.44**	mg/L	0.050	0.017	1		05/06/23 09:13	16984-48-8	
Sulfate	**524**	mg/L	25.0	8.5	100		05/06/23 09:52	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**5.8**	mg/L	0.10	0.061	1	05/03/23 09:40	05/04/23 11:23	7440-42-8	
Calcium	**225**	mg/L	2.0	0.18	2	05/03/23 09:40	05/04/23 11:50	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/03/23 09:40	05/04/23 11:23	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 00:17	7440-36-0	
Arsenic	**0.00080J**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 00:17	7440-38-2	
Barium	**0.084**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 00:17	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 00:17	7440-41-7	
Cadmium	**0.000017J**	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 00:17	7440-43-9	
Chromium	**0.00024J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 00:17	7440-47-3	
Cobalt	**0.00018J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 00:17	7440-48-4	
Lead	ND	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 00:17	7439-92-1	
Molybdenum	**0.0077**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 00:17	7439-98-7	
Selenium	**0.00024J**	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 00:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 00:17	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/01/23 21:04	05/02/23 11:14	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1300**	mg/L	20.0	20.0	1		04/28/23 08:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/08/23 16:44		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-52-042523 **Lab ID: 50343172001** Collected: 04/25/23 09:25 Received: 04/26/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**43.0**	mg/L	2.5	0.67	10		05/05/23 04:27	16887-00-6	
Fluoride	**0.41**	mg/L	0.050	0.017	1		05/05/23 04:09	16984-48-8	
Sulfate	**56.4**	mg/L	2.5	0.85	10		05/05/23 04:27	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.062J**	mg/L	0.10	0.061	1	05/04/23 16:45	05/08/23 10:00	7440-42-8	
Calcium	**64.9**	mg/L	1.0	0.088	1	05/04/23 16:45	05/08/23 10:00	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/04/23 16:45	05/08/23 10:00	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00015J**	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 00:20	7440-36-0	
Arsenic	**0.00015J**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 00:20	7440-38-2	
Barium	**0.012**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 00:20	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 00:20	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 00:20	7440-43-9	
Chromium	**0.00027J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 00:20	7440-47-3	
Cobalt	**0.00011J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 00:20	7440-48-4	
Lead	ND	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 00:20	7439-92-1	
Molybdenum	**0.0037**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 00:20	7439-98-7	
Selenium	**0.00069J**	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 00:20	7782-49-2	
Thallium	**0.000059J**	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 00:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:37	05/02/23 17:58	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**279**	mg/L	10.0	10.0	1		04/29/23 08:22		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		05/09/23 14:50		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-52B-042523 **Lab ID: 50343172002** Collected: 04/25/23 11:10 Received: 04/26/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**199**	mg/L	2.5	0.67	10		05/06/23 00:11	16887-00-6	
Fluoride	**0.92**	mg/L	0.050	0.017	1		05/05/23 23:51	16984-48-8	
Sulfate	**62.8**	mg/L	2.5	0.85	10		05/06/23 00:11	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.14**	mg/L	0.10	0.061	1	05/04/23 16:45	05/08/23 10:02	7440-42-8	
Calcium	**92.5**	mg/L	1.0	0.088	1	05/04/23 16:45	05/08/23 10:02	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/04/23 16:45	05/08/23 10:02	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000072J**	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 00:31	7440-36-0	
Arsenic	**0.00050J**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 00:31	7440-38-2	
Barium	**0.11**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 00:31	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 00:31	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 00:31	7440-43-9	
Chromium	**0.00032J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 00:31	7440-47-3	
Cobalt	**0.000077J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 00:31	7440-48-4	
Lead	**0.000036J**	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 00:31	7439-92-1	
Molybdenum	**0.0046**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 00:31	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 00:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 00:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:37	05/02/23 18:01	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**540**	mg/L	10.0	10.0	1		04/29/23 08:22		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.8**	Std. Units	0.10	0.10	1		05/09/23 14:51		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: FD-03-042523 **Lab ID: 50343172003** Collected: 04/25/23 12:00 Received: 04/26/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**42.8**	mg/L	2.5	0.67	10		05/05/23 05:19	16887-00-6	
Fluoride	**0.41**	mg/L	0.050	0.017	1		05/05/23 05:01	16984-48-8	
Sulfate	**59.1**	mg/L	2.5	0.85	10		05/05/23 05:19	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/04/23 16:45	05/08/23 10:13	7440-42-8	
Calcium	**63.6**	mg/L	1.0	0.088	1	05/04/23 16:45	05/08/23 10:13	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/04/23 16:45	05/08/23 10:13	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00015J**	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 00:57	7440-36-0	
Arsenic	**0.00015J**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 00:57	7440-38-2	
Barium	**0.012**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 00:57	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 00:57	7440-41-7	
Cadmium	**0.000011J**	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 00:57	7440-43-9	
Chromium	**0.00025J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 00:57	7440-47-3	
Cobalt	**0.00011J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 00:57	7440-48-4	
Lead	ND	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 00:57	7439-92-1	
Molybdenum	**0.0036**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 00:57	7439-98-7	
Selenium	**0.00086J**	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 00:57	7782-49-2	
Thallium	**0.000058J**	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 00:57	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:37	05/02/23 18:16	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**278**	mg/L	10.0	10.0	1		04/29/23 08:23		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		05/09/23 14:52		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-55B-042623 **Lab ID: 50343254001** Collected: 04/26/23 13:55 Received: 04/27/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**120**	mg/L	2.5	0.67	10		05/07/23 10:27	16887-00-6	
Fluoride	**0.30**	mg/L	0.050	0.017	1		05/07/23 10:07	16984-48-8	
Sulfate	**522**	mg/L	25.0	8.5	100		05/07/23 10:46	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**7.4**	mg/L	0.10	0.061	1	05/04/23 16:45	05/08/23 10:27	7440-42-8	
Calcium	**191**	mg/L	1.0	0.088	1	05/04/23 16:45	05/08/23 10:27	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/04/23 16:45	05/08/23 10:27	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 01:01	7440-36-0	
Arsenic	**0.00023J**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 01:01	7440-38-2	
Barium	**0.055**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 01:01	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 01:01	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 01:01	7440-43-9	
Chromium	**0.00027J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 01:01	7440-47-3	
Cobalt	**0.00017J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 01:01	7440-48-4	
Lead	**0.000036J**	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 01:01	7439-92-1	
Molybdenum	**0.0063**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 01:01	7439-98-7	
Selenium	**0.00023J**	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 01:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 01:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:37	05/02/23 18:20	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1170**	mg/L	10.0	10.0	1		05/01/23 11:02		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		05/09/23 15:37		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: FB-03-042623 **Lab ID: 50343254002** Collected: 04/26/23 11:30 Received: 04/27/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		05/07/23 11:06	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		05/07/23 11:06	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		05/07/23 11:06	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/04/23 16:45	05/08/23 10:30	7440-42-8	
Calcium	ND	mg/L	1.0	0.088	1	05/04/23 16:45	05/08/23 10:30	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/04/23 16:45	05/08/23 10:30	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 01:04	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 01:04	7440-38-2	
Barium	**0.0013**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 01:04	7440-39-3	C0
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 01:04	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 01:04	7440-43-9	
Chromium	**0.00018J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 01:04	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 01:04	7440-48-4	
Lead	ND	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 01:04	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 01:04	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 01:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 01:04	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:37	05/02/23 18:23	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/01/23 11:03		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.0**	Std. Units	0.10	0.10	1		05/09/23 15:39		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-54-042623 **Lab ID: 50343255001** Collected: 04/26/23 10:05 Received: 04/27/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**26.2**	mg/L	2.5	0.67	10		05/07/23 11:45	16887-00-6	
Fluoride	**0.35**	mg/L	0.050	0.017	1		05/07/23 11:25	16984-48-8	
Sulfate	**273**	mg/L	2.5	0.85	10		05/07/23 11:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.58**	mg/L	0.10	0.061	1	05/04/23 16:45	05/08/23 10:32	7440-42-8	
Calcium	**145**	mg/L	1.0	0.088	1	05/04/23 16:45	05/08/23 10:32	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/04/23 16:45	05/08/23 10:32	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00055J**	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 01:07	7440-36-0	
Arsenic	**0.0094**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 01:07	7440-38-2	
Barium	**0.059**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 01:07	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 01:07	7440-41-7	
Cadmium	**0.000028J**	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 01:07	7440-43-9	
Chromium	**0.00060J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 01:07	7440-47-3	
Cobalt	**0.00065J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 01:07	7440-48-4	
Lead	**0.00011J**	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 01:07	7439-92-1	
Molybdenum	**0.016**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 01:07	7439-98-7	
Selenium	**0.0035**	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 01:07	7782-49-2	
Thallium	**0.00011J**	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 01:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:37	05/02/23 18:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**705**	mg/L	10.0	10.0	1		05/01/23 11:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		05/09/23 15:41		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-54B-042623 **Lab ID: 50343255002** Collected: 04/26/23 11:20 Received: 04/27/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**121**	mg/L	2.5	0.67	10		05/07/23 13:22	16887-00-6	
Fluoride	**0.55**	mg/L	0.050	0.017	1		05/07/23 13:03	16984-48-8	
Sulfate	**465**	mg/L	2.5	0.85	10		05/07/23 13:22	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**4.1**	mg/L	0.10	0.061	1	05/04/23 16:45	05/08/23 10:35	7440-42-8	
Calcium	**192**	mg/L	1.0	0.088	1	05/04/23 16:45	05/08/23 10:35	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/04/23 16:45	05/08/23 10:35	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 01:11	7440-36-0	
Arsenic	**0.0036**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 01:11	7440-38-2	
Barium	**0.065**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 01:11	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 01:11	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 01:11	7440-43-9	
Chromium	**0.00028J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 01:11	7440-47-3	
Cobalt	**0.00017J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 01:11	7440-48-4	
Lead	**0.000062J**	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 01:11	7439-92-1	
Molybdenum	**0.023**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 01:11	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 01:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 01:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:37	05/02/23 18:28	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1070**	mg/L	10.0	10.0	1		05/01/23 11:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/09/23 15:46		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-55R-042623 **Lab ID: 50343255003** Collected: 04/26/23 12:35 Received: 04/27/23 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**33.5**	mg/L	2.5	0.67	10		05/07/23 14:21	16887-00-6	
Fluoride	**0.61**	mg/L	0.050	0.017	1		05/07/23 14:01	16984-48-8	
Sulfate	**342**	mg/L	2.5	0.85	10		05/07/23 14:21	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.88**	mg/L	0.10	0.061	1	05/04/23 16:45	05/08/23 10:37	7440-42-8	
Calcium	**169**	mg/L	1.0	0.088	1	05/04/23 16:45	05/08/23 10:37	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/04/23 16:45	05/08/23 10:37	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00012J**	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 01:21	7440-36-0	
Arsenic	**0.00024J**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 01:21	7440-38-2	
Barium	**0.027**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 01:21	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 01:21	7440-41-7	
Cadmium	**0.000021J**	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 01:21	7440-43-9	
Chromium	**0.00031J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 01:21	7440-47-3	
Cobalt	**0.00024J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 01:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 01:21	7439-92-1	
Molybdenum	**0.022**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 01:21	7439-98-7	
Selenium	**0.0068**	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 01:21	7782-49-2	
Thallium	**0.000093J**	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 01:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/02/23 10:37	05/02/23 18:30	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**765**	mg/L	10.0	10.0	1		05/01/23 11:03		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		05/09/23 15:49		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-68-050123 **Lab ID: 50343612001** Collected: 05/01/23 12:25 Received: 05/02/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**19.5**	mg/L	2.5	0.67	10		05/14/23 12:46	16887-00-6	
Fluoride	**0.20**	mg/L	0.050	0.017	1		05/12/23 21:15	16984-48-8	
Sulfate	**64.0**	mg/L	2.5	0.85	10		05/14/23 12:46	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 14:55	7440-42-8	
Calcium	**62.4**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 14:55	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 14:55	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00020J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:26	7440-36-0	
Arsenic	**0.0030**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:26	7440-38-2	
Barium	**0.10**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:26	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:26	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:26	7440-43-9	
Chromium	**0.00029J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:26	7440-47-3	
Cobalt	**0.00065J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:26	7440-48-4	
Lead	**0.00030J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:26	7439-92-1	
Molybdenum	**0.0033**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:26	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/09/23 11:16	05/09/23 18:56	7439-97-6	1d,F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**260**	mg/L	10.0	10.0	1		05/03/23 14:31		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.2**	Std. Units	0.10	0.10	1		05/12/23 10:57		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: GAMW-68B-050123 **Lab ID: 50343612002** Collected: 05/01/23 14:40 Received: 05/02/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**14.6**	mg/L	2.5	0.67	10		05/16/23 13:15	16887-00-6	
Fluoride	**0.17**	mg/L	0.050	0.017	1		05/12/23 22:12	16984-48-8	
Sulfate	**71.0**	mg/L	2.5	0.85	10		05/16/23 13:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:06	7440-42-8	
Calcium	**47.0**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:06	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:06	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000085J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:29	7440-36-0	
Arsenic	**0.00024J**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:29	7440-38-2	
Barium	**0.099**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:29	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:29	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:29	7440-43-9	
Chromium	**0.00034J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:29	7440-47-3	
Cobalt	**0.000044J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:29	7440-48-4	
Lead	**0.000040J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:29	7439-92-1	
Molybdenum	**0.0021**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:29	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:29	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/09/23 11:16	05/09/23 18:58	7439-97-6	1d,F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**229**	mg/L	10.0	10.0	1		05/03/23 14:31		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		05/12/23 11:00		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: FB-04-050123 **Lab ID: 50343612003** Collected: 05/01/23 14:45 Received: 05/02/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.079J**	mg/L	0.25	0.067	1		05/12/23 23:08	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		05/12/23 23:08	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		05/12/23 23:08	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:08	7440-42-8	
Calcium	ND	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:08	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:08	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000060J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:12	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:12	7440-38-2	
Barium	**0.0023**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:12	7440-39-3	C0
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:12	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:12	7440-43-9	
Chromium	**0.00026J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:12	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:12	7440-48-4	
Lead	ND	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:12	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:12	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:12	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/09/23 11:16	05/09/23 19:01	7439-97-6	1d,F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/03/23 14:50		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		05/12/23 11:02		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Sample: FD-04-050123 **Lab ID: 50343612004** Collected: 05/01/23 12:00 Received: 05/02/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**14.4**	mg/L	2.5	0.67	10		05/13/23 00:43	16887-00-6	
Fluoride	**0.18**	mg/L	0.050	0.017	1		05/13/23 00:24	16984-48-8	
Sulfate	**70.8**	mg/L	2.5	0.85	10		05/13/23 00:43	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:11	7440-42-8	
Calcium	**48.4**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:11	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:11	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000074J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:32	7440-36-0	
Arsenic	**0.00023J**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:32	7440-38-2	
Barium	**0.098**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:32	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:32	7440-41-7	
Cadmium	**0.000014J**	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:32	7440-43-9	
Chromium	**0.00028J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:32	7440-47-3	
Cobalt	**0.000043J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:32	7440-48-4	
Lead	**0.000049J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:32	7439-92-1	
Molybdenum	**0.0021**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:32	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:32	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/09/23 11:16	05/09/23 19:03	7439-97-6	1d,F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**202**	mg/L	10.0	10.0	1		05/03/23 14:50		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		05/12/23 11:03		H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 728551
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50341962001, 50341962002

METHOD BLANK: 3343360 Matrix: Water
Associated Lab Samples: 50341962001, 50341962002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/23/23 03:17	
Fluoride	mg/L	ND	0.050	0.017	04/23/23 03:17	
Sulfate	mg/L	ND	0.25	0.085	04/23/23 03:17	

LABORATORY CONTROL SAMPLE: 3343361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.91	91	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3343362 3350095

Parameter	Units	50341968001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.1	2.5	2.5	5.5	5.3	98	90	80-120	4	15	
Fluoride	mg/L		1	1	1.0	1.0	102	103	80-120	1	15	
Sulfate	mg/L	24.0	5	5	29.2	28.5	104	90	80-120	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3343364 3343365

Parameter	Units	50341968009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	40.0	25	25	64.5	68.3	98	113	80-120	6	15	
Fluoride	mg/L		1	1	1.1	1.1	106	106	80-120	0	15	
Sulfate	mg/L	43.7	5	5	47.5	46.2	75	49	80-120	3	15	M0

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729724
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342144001, 50342144002

METHOD BLANK: 3348871 Matrix: Water
Associated Lab Samples: 50342144001, 50342144002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/26/23 11:00	
Fluoride	mg/L	ND	0.050	0.017	04/26/23 11:00	
Sulfate	mg/L	ND	0.25	0.085	04/26/23 11:00	

LABORATORY CONTROL SAMPLE: 3348872

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348873 3348875

Parameter	Units	50342144002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	23.9	2.5	2.5	25.8	25.8	76	76	80-120	0	15	E,M0
Fluoride	mg/L	0.17	1	1	1.2	1.2	104	104	80-120	0	15	
Sulfate	mg/L	66.1	50	50	112	112	92	91	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730038 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006

METHOD BLANK: 3350309 Matrix: Water
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/28/23 20:41	
Fluoride	mg/L	ND	0.050	0.017	04/28/23 20:41	
Sulfate	mg/L	ND	0.25	0.085	04/28/23 20:41	

LABORATORY CONTROL SAMPLE: 3350310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350311 3350312

Parameter	Units	50342799003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	54.9	25	25	80.9	80.1	104	101	80-120	1	15	
Fluoride	mg/L	ND	1	1	1.0	1.0	97	98	80-120	1	15	
Sulfate	mg/L	274	50	50	318	318	89	88	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730064
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342402001, 50342402002, 50342402003, 50342402004

METHOD BLANK: 3350424 Matrix: Water
Associated Lab Samples: 50342402001, 50342402002, 50342402003, 50342402004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/28/23 10:58	
Fluoride	mg/L	ND	0.050	0.017	04/28/23 10:58	
Sulfate	mg/L	ND	0.25	0.085	04/28/23 10:58	

LABORATORY CONTROL SAMPLE: 3350425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.96	96	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350426 3350427

Parameter	Units	50342433005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	11.2	2.5	2.5	13.7	13.7	101	101	80-120	0	15	
Fluoride	mg/L	0.22	1	1	1.2	1.2	98	99	80-120	1	15	
Sulfate	mg/L	437	50	50	501	501	127	128	80-120	0	15	E,M0

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730423
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

METHOD BLANK: 3352317 Matrix: Water
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/29/23 06:05	
Fluoride	mg/L	ND	0.050	0.017	04/29/23 06:05	
Sulfate	mg/L	ND	0.25	0.085	04/29/23 06:05	

LABORATORY CONTROL SAMPLE: 3352318

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	1.0	102	80-120	
Sulfate	mg/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3352319 3352320

Parameter	Units	50342598007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	182	25	25	207	207	98	98	80-120	0	15	
Fluoride	mg/L	7.9	1	1	8.9	8.9	105	107	80-120	0	15	
Sulfate	mg/L	393	50	50	437	438	89	91	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730609
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007

METHOD BLANK: 3353516 Matrix: Water
Associated Lab Samples: 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	04/30/23 00:50	
Fluoride	mg/L	ND	0.050	0.017	04/30/23 00:50	
Sulfate	mg/L	ND	0.25	0.085	04/30/23 00:50	

LABORATORY CONTROL SAMPLE: 3353517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.95	95	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353518 3353519

Parameter	Units	50342776001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	134	25	25	158	158	97	97	80-120	0	15	
Fluoride	mg/L	0.56	1	1	1.6	1.6	104	104	80-120	0	15	
Sulfate	mg/L	553	500	500	1020	1010	93	92	80-120	1	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730834
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

METHOD BLANK: 3354265 Matrix: Water
Associated Lab Samples: 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/03/23 20:45	
Fluoride	mg/L	ND	0.050	0.017	05/03/23 20:45	
Sulfate	mg/L	ND	0.25	0.085	05/03/23 20:45	

LABORATORY CONTROL SAMPLE: 3354266

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.95	95	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354267 3354268

Parameter	Units	50342886008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	30.1	25	25	54.4	54.4	97	97	80-120	0	15	
Fluoride	mg/L	0.26	1	1	1.2	1.2	95	97	80-120	1	15	
Sulfate	mg/L	28.7	5	5	33.6	33.7	99	100	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731451
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343032001, 50343032002

METHOD BLANK: 3356576 Matrix: Water
Associated Lab Samples: 50343032001, 50343032002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/05/23 23:08	
Fluoride	mg/L	ND	0.050	0.017	05/05/23 23:08	
Sulfate	mg/L	ND	0.25	0.085	05/05/23 23:08	

LABORATORY CONTROL SAMPLE: 3356577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.91	91	80-120	
Sulfate	mg/L	5	4.7	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356578 3356579

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	90.6	25	25	114	114	95	94	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.98	0.99	92	93	80-120	1	15	
Sulfate	mg/L	209	50	50	264	262	110	106	80-120	1	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731453
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343172001, 50343172003

METHOD BLANK: 3356592 Matrix: Water
Associated Lab Samples: 50343172001, 50343172003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/04/23 20:36	
Fluoride	mg/L	ND	0.050	0.017	05/04/23 20:36	
Sulfate	mg/L	ND	0.25	0.085	05/04/23 20:36	

LABORATORY CONTROL SAMPLE: 3356593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	94	80-120	
Fluoride	mg/L	1	1.0	104	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356594 3356595

Parameter	Units	50343595002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	32.7	25	25	55.6	55.5	91	91	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	107	107	80-120	0	15	
Sulfate	mg/L	24.4	5	5	29.1	29.1	94	93	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731616
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343172002

METHOD BLANK: 3357480 Matrix: Water
Associated Lab Samples: 50343172002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/05/23 23:12	
Fluoride	mg/L	ND	0.050	0.017	05/05/23 23:12	
Sulfate	mg/L	ND	0.25	0.085	05/05/23 23:12	

LABORATORY CONTROL SAMPLE: 3357481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	98	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357482 3357483

Parameter	Units	50343172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	199	25	25	223	223	95	95	80-120	0	15	
Fluoride	mg/L	0.92	1	1	1.9	1.9	100	101	80-120	0	15	
Sulfate	mg/L	62.8	50	50	110	109	94	93	80-120	1	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731633 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

METHOD BLANK: 3357542 Matrix: Water
Associated Lab Samples: 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/07/23 05:15	
Fluoride	mg/L	ND	0.050	0.017	05/07/23 05:15	
Sulfate	mg/L	ND	0.25	0.085	05/07/23 05:15	

LABORATORY CONTROL SAMPLE: 3357543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.94	94	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3357544 3357545

Parameter	Units	50343240003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	113	25	25	144	139	122	105	80-120	3	15	E,M0
Fluoride	mg/L	0.36	1	1	1.3	1.5	97	112	80-120	11	15	
Sulfate	mg/L	50.5	50	50	93.0	90.7	85	80	80-120	3	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 732630 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

METHOD BLANK: 3362311 Matrix: Water
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/12/23 23:27	
Fluoride	mg/L	ND	0.050	0.017	05/12/23 23:27	
Sulfate	mg/L	ND	0.25	0.085	05/12/23 23:27	

LABORATORY CONTROL SAMPLE: 3362312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	100	80-120	
Fluoride	mg/L	1	1.1	107	80-120	
Sulfate	mg/L	5	5.3	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362313 3362314

Parameter	Units	50344228001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.1	25	25	39.1	39.4	100	101	80-120	1	15	
Fluoride	mg/L	ND	1	1	1.3	1.3	122	122	80-120	0	15	M0
Sulfate	mg/L	226	50	50	272	270	91	88	80-120	1	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 728756
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50341962001, 50341962002

METHOD BLANK: 3344165 Matrix: Water
Associated Lab Samples: 50341962001, 50341962002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	04/21/23 07:09	

LABORATORY CONTROL SAMPLE: 3344166

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344167 3344168

Parameter	Units	50341956002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.0020 mg/L	5	5	5.1	5.3	100	104	75-125	4	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 728758
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342144001, 50342144002

METHOD BLANK: 3344174 Matrix: Water
Associated Lab Samples: 50342144001, 50342144002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	04/21/23 08:18	

LABORATORY CONTROL SAMPLE: 3344175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.5	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344176 3344177

Parameter	Units	50342354003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.3	5.4	104	107	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3344178 3344179

Parameter	Units	50342144002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.2	100	102	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729845
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006, 50342402001, 50342402002, 50342402003, 50342402004

METHOD BLANK: 3349523 Matrix: Water
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006, 50342402001, 50342402002, 50342402003, 50342402004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	04/26/23 21:56	

LABORATORY CONTROL SAMPLE: 3349524

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3349525 3349526

Parameter	Units	50342290006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.3	5.2	106	103	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729970 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

METHOD BLANK: 3350029 Matrix: Water
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/02/23 16:13	

LABORATORY CONTROL SAMPLE: 3350030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3350031 3350032

Parameter	Units	50342608003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.2	103	104	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730372 — Analysis Method: EPA 7470
QC Batch Method: EPA 7470 — Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007, 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

METHOD BLANK: 3351877 — Matrix: Water
Associated Lab Samples: 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007, 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/01/23 08:35	

LABORATORY CONTROL SAMPLE: 3351878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3351879 3351880

Parameter	Units	50342776001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	100	99	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730914
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343032001, 50343032002

METHOD BLANK: 3354537 Matrix: Water
Associated Lab Samples: 50343032001, 50343032002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/02/23 10:54	

LABORATORY CONTROL SAMPLE: 3354538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354539 3354540

Parameter	Units	50343477002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.4	5.3	108	107	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730947 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343172001, 50343172002, 50343172003, 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

METHOD BLANK: 3354730 Matrix: Water
Associated Lab Samples: 50343172001, 50343172002, 50343172003, 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/02/23 17:24	

LABORATORY CONTROL SAMPLE: 3354731

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3354732 3354733

Parameter	Units	50343172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.1	103	102	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731914
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

METHOD BLANK: 3359151 Matrix: Water
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/09/23 18:24	

LABORATORY CONTROL SAMPLE: 3359152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359153 3359154

Parameter	Units	50343791004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.1	104	101	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729319
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50341962001, 50341962002

METHOD BLANK: 3347267 Matrix: Water
Associated Lab Samples: 50341962001, 50341962002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.038	04/24/23 13:47	
Calcium	mg/L	ND	1.0	0.16	04/24/23 13:47	
Lithium	mg/L	ND	0.010	0.0062	04/24/23 13:47	

LABORATORY CONTROL SAMPLE: 3347268

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.98	98	80-120	
Calcium	mg/L	10	10.1	101	80-120	
Lithium	mg/L	1	1.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347269 3347270

Parameter	Units	50341419003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	2780 ug/L	1	1	3.8	3.9	99	111	75-125	3	20	
Calcium	mg/L	137000 ug/L	10	10	146	151	95	139	75-125	3	20	P6
Lithium	mg/L	28.5 ug/L	1	1	1.1	1.1	106	109	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729377
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342144001, 50342144002

METHOD BLANK: 3347609 Matrix: Water
Associated Lab Samples: 50342144001, 50342144002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.038	04/26/23 10:40	
Calcium	mg/L	ND	1.0	0.16	04/26/23 10:40	
Lithium	mg/L	ND	0.010	0.0062	04/26/23 10:40	

LABORATORY CONTROL SAMPLE: 3347610

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.92	92	80-120	
Calcium	mg/L	10	9.6	96	80-120	
Lithium	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347611 3347612

Parameter	Units	50342144002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.34	1	1	1.3	1.3	95	93	75-125	1	20	
Calcium	mg/L	107	10	10	116	115	95	82	75-125	1	20	
Lithium	mg/L	ND	1	1	1.0	1.0	103	102	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729382
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006

METHOD BLANK: 3347633 Matrix: Water
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.038	04/26/23 11:59	
Calcium	mg/L	ND	1.0	0.16	04/26/23 11:59	
Lithium	mg/L	ND	0.010	0.0062	04/26/23 11:59	

LABORATORY CONTROL SAMPLE: 3347634

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.97	97	80-120	
Calcium	mg/L	10	10.2	102	80-120	
Lithium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347635 3347636

Parameter	Units	50342287001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.27	1	1	1.2	1.2	96	95	75-125	1	20	
Calcium	mg/L	98.8	10	10	107	104	83	55	75-125	3	20	P6
Lithium	mg/L	ND	1	1	1.1	1.1	106	106	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729386
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342402001, 50342402002, 50342402003, 50342402004

METHOD BLANK: 3347668 Matrix: Water
Associated Lab Samples: 50342402001, 50342402002, 50342402003, 50342402004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.038	04/26/23 13:12	
Calcium	mg/L	ND	1.0	0.16	04/26/23 13:12	
Lithium	mg/L	ND	0.010	0.0062	04/26/23 13:12	

LABORATORY CONTROL SAMPLE: 3347669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.93	93	80-120	
Calcium	mg/L	10	10	100	80-120	
Lithium	mg/L	1	0.99	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347670 3347671

Parameter	Units	50342433005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	4.0	1	1	5.1	4.9	106	90	75-125	3	20	
Calcium	mg/L	212	10	10	227	225	142	124	75-125	1	20	P6
Lithium	mg/L	ND	1	1	1.1	1.1	113	109	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729393 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

METHOD BLANK: 3347696 Matrix: Water
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.038	04/29/23 13:45	
Calcium	mg/L	ND	1.0	0.16	04/29/23 13:45	
Lithium	mg/L	ND	0.010	0.0062	04/29/23 13:45	

LABORATORY CONTROL SAMPLE: 3347697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.96	96	80-120	
Calcium	mg/L	10	9.7	97	80-120	
Lithium	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347698 3347699

Parameter	Units	50342606001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	2.5	1	1	3.5	3.4	98	85	75-125	4	20	
Calcium	mg/L	186	10	10	191	184	56	-20	75-125	4	20	P6
Lithium	mg/L	ND	1	1	1.0	0.98	100	97	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730692
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007

METHOD BLANK: 3353961 Matrix: Water
Associated Lab Samples: 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.038	05/03/23 13:13	
Calcium	mg/L	ND	1.0	0.16	05/03/23 13:13	
Lithium	mg/L	ND	0.010	0.0062	05/03/23 13:13	

LABORATORY CONTROL SAMPLE: 3353962

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.96	96	80-120	
Calcium	mg/L	10	9.7	97	80-120	
Lithium	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353963 3353964

Parameter	Units	50342776001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	9.8	1	1	10.9	11.2	110	133	75-125	2	20	P6
Calcium	mg/L	225	10	10	235	240	100	152	75-125	2	20	P6
Lithium	mg/L	ND	1	1	1.1	1.1	105	106	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731076
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342909001, 50342909002, 50342909003, 50342912001, 50342912002, 50343032001, 50343032002

METHOD BLANK: 3355114 Matrix: Water
Associated Lab Samples: 50342909001, 50342909002, 50342909003, 50342912001, 50342912002, 50343032001, 50343032002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.061	05/04/23 09:52	
Calcium	mg/L	ND	1.0	0.088	05/04/23 09:52	
Lithium	mg/L	ND	0.010	0.0062	05/05/23 10:03	2d

LABORATORY CONTROL SAMPLE: 3355115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.97	97	80-120	
Calcium	mg/L	10	10.2	102	80-120	
Lithium	mg/L	1	1.0	102	80-120	2d

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3355116 3355117

Parameter	Units	50343015001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.10	1	1	1.1	1.1	96	99	75-125	2	20	
Calcium	mg/L	29.2	10	10	38.4	39.8	92	106	75-125	4	20	
Lithium	mg/L	ND	1	1	1.0	1.0	99	103	75-125	4	20	F5

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731406
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343172001, 50343172002, 50343172003, 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

METHOD BLANK: 3356404 Matrix: Water
Associated Lab Samples: 50343172001, 50343172002, 50343172003, 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.061	05/08/23 09:57	
Calcium	mg/L	ND	1.0	0.088	05/08/23 09:57	
Lithium	mg/L	ND	0.010	0.0062	05/08/23 09:57	

LABORATORY CONTROL SAMPLE: 3356405

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.90	90	80-120	
Calcium	mg/L	10	9.7	97	80-120	
Lithium	mg/L	1	0.96	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356406 3356407

Parameter	Units	50343172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.14	1	1	1.1	1.1	94	95	75-125	1	20	
Calcium	mg/L	92.5	10	10	102	102	100	99	75-125	0	20	
Lithium	mg/L	ND	1	1	0.97	0.99	97	99	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 732537
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

METHOD BLANK: 3361877 Matrix: Water
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.061	05/12/23 14:48	
Calcium	mg/L	ND	1.0	0.088	05/12/23 14:48	
Lithium	mg/L	ND	0.010	0.0062	05/12/23 14:48	

LABORATORY CONTROL SAMPLE: 3361878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	102	80-120	
Calcium	mg/L	5	5.2	104	80-120	
Lithium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361879 3361880

Parameter	Units	50343612001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	ND	1	1	1.0	1.0	100	100	75-125	0	20	
Calcium	mg/L	62.4	5	5	64.5	63.7	43	27	75-125	1	20	P6
Lithium	mg/L	ND	1	1	1.1	1.1	105	105	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 728110
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50341962001, 50341962002, 50342144001, 50342144002

METHOD BLANK: 3341813 Matrix: Water
Associated Lab Samples: 50341962001, 50341962002, 50342144001, 50342144002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000036	04/18/23 18:57	
Arsenic	mg/L	ND	0.0010	0.000053	04/18/23 18:57	
Barium	mg/L	ND	0.0010	0.000051	04/18/23 18:57	
Beryllium	mg/L	ND	0.00020	0.000028	04/18/23 18:57	
Cadmium	mg/L	ND	0.00020	0.0000090	04/18/23 18:57	
Chromium	mg/L	ND	0.0020	0.00013	04/18/23 18:57	
Cobalt	mg/L	ND	0.0010	0.000032	04/18/23 18:57	
Lead	mg/L	ND	0.0010	0.000034	04/18/23 18:57	
Molybdenum	mg/L	ND	0.0010	0.000048	04/18/23 18:57	
Selenium	mg/L	ND	0.0010	0.00023	04/18/23 18:57	
Thallium	mg/L	ND	0.0010	0.000033	04/18/23 18:57	

LABORATORY CONTROL SAMPLE: 3341814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	103	80-120	
Arsenic	mg/L	0.04	0.038	96	80-120	
Barium	mg/L	0.04	0.039	99	80-120	
Beryllium	mg/L	0.04	0.042	104	80-120	
Cadmium	mg/L	0.04	0.039	97	80-120	
Chromium	mg/L	0.04	0.041	102	80-120	
Cobalt	mg/L	0.04	0.041	101	80-120	
Lead	mg/L	0.04	0.041	102	80-120	
Molybdenum	mg/L	0.04	0.041	102	80-120	
Selenium	mg/L	0.04	0.040	101	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3341815 3341816

Parameter	Units	50342144002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.000080J	0.04	0.04	0.042	0.041	105	103	75-125	2	20	
Arsenic	mg/L	0.00030J	0.04	0.04	0.038	0.038	94	94	75-125	1	20	
Barium	mg/L	0.19	0.04	0.04	0.23	0.23	103	106	75-125	1	20	
Beryllium	mg/L	ND	0.04	0.04	0.041	0.042	104	104	75-125	0	20	
Cadmium	mg/L	ND	0.04	0.04	0.038	0.039	96	96	75-125	0	20	
Chromium	mg/L	0.00045J	0.04	0.04	0.040	0.040	99	100	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3341815 3341816

Parameter	Units	50342144002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.00024J	0.04	0.04	0.040	0.039	99	98	75-125	1	20	
Lead	mg/L	0.000040J	0.04	0.04	0.041	0.041	103	103	75-125	0	20	
Molybdenum	mg/L	0.0011	0.04	0.04	0.043	0.042	105	103	75-125	1	20	
Selenium	mg/L	ND	0.04	0.04	0.039	0.039	97	96	75-125	1	20	
Thallium	mg/L	ND	0.04	0.04	0.042	0.042	106	106	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729332
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006, 50342402001, 50342402002, 50342402003, 50342402004

METHOD BLANK: 3347320 Matrix: Water
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006, 50342402001, 50342402002, 50342402003, 50342402004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000080	04/26/23 08:16	
Arsenic	mg/L	ND	0.0010	0.00012	04/26/23 08:16	
Barium	mg/L	ND	0.0010	0.000065	04/26/23 08:16	
Beryllium	mg/L	ND	0.00020	0.000026	04/26/23 08:16	
Cadmium	mg/L	ND	0.00020	0.000016	04/26/23 08:16	
Chromium	mg/L	ND	0.0020	0.00018	04/26/23 08:16	
Cobalt	mg/L	ND	0.0010	0.000071	04/26/23 08:16	
Lead	mg/L	ND	0.0010	0.000068	04/26/23 08:16	
Molybdenum	mg/L	ND	0.0010	0.000074	04/26/23 08:16	
Selenium	mg/L	ND	0.0010	0.00019	04/26/23 08:16	
Thallium	mg/L	ND	0.0010	0.000060	04/26/23 08:16	

LABORATORY CONTROL SAMPLE: 3347321

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.042	104	80-120	
Arsenic	mg/L	0.04	0.039	97	80-120	
Barium	mg/L	0.04	0.040	100	80-120	
Beryllium	mg/L	0.04	0.039	97	80-120	
Cadmium	mg/L	0.04	0.039	98	80-120	
Chromium	mg/L	0.04	0.042	105	80-120	
Cobalt	mg/L	0.04	0.041	102	80-120	
Lead	mg/L	0.04	0.042	104	80-120	
Molybdenum	mg/L	0.04	0.041	104	80-120	
Selenium	mg/L	0.04	0.040	100	80-120	
Thallium	mg/L	0.04	0.043	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347322 3347323

Parameter	Units	50342290001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00056J	0.04	0.04	0.042	0.043	104	106	75-125	2	20	
Arsenic	mg/L	0.0027	0.04	0.04	0.041	0.041	96	96	75-125	0	20	
Barium	mg/L	0.082	0.04	0.04	0.12	0.12	96	96	75-125	0	20	
Beryllium	mg/L	ND	0.04	0.04	0.038	0.039	96	98	75-125	2	20	
Cadmium	mg/L	0.000070J	0.04	0.04	0.038	0.038	95	96	75-125	1	20	

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347322 3347323

Parameter	Units	50342290001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00039J	0.04	0.04	0.042	0.042	103	103	75-125	0	20	
Cobalt	mg/L	0.0015	0.04	0.04	0.040	0.040	96	96	75-125	0	20	
Lead	mg/L	0.00016J	0.04	0.04	0.041	0.041	102	103	75-125	1	20	
Molybdenum	mg/L	0.010	0.04	0.04	0.052	0.052	104	105	75-125	1	20	
Selenium	mg/L	0.00072J	0.04	0.04	0.040	0.039	99	97	75-125	2	20	
Thallium	mg/L	ND	0.04	0.04	0.042	0.042	105	106	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729632
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006, 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007, 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

METHOD BLANK: 3348381 Matrix: Water
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006, 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007, 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000080	04/27/23 18:12	
Arsenic	mg/L	ND	0.0010	0.00012	04/27/23 18:12	
Barium	mg/L	ND	0.0010	0.000065	04/27/23 18:12	
Beryllium	mg/L	ND	0.00020	0.000026	04/27/23 18:12	
Cadmium	mg/L	ND	0.00020	0.000016	04/27/23 18:12	
Chromium	mg/L	ND	0.0020	0.00018	04/27/23 18:12	
Cobalt	mg/L	ND	0.0010	0.000071	04/27/23 18:12	
Lead	mg/L	ND	0.0010	0.000068	04/27/23 18:12	
Molybdenum	mg/L	ND	0.0010	0.000074	04/27/23 18:12	
Selenium	mg/L	ND	0.0010	0.00019	04/27/23 18:12	
Thallium	mg/L	ND	0.0010	0.000060	04/27/23 18:12	

LABORATORY CONTROL SAMPLE: 3348382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.040	100	80-120	
Arsenic	mg/L	0.04	0.037	93	80-120	
Barium	mg/L	0.04	0.038	96	80-120	
Beryllium	mg/L	0.04	0.038	94	80-120	
Cadmium	mg/L	0.04	0.038	94	80-120	
Chromium	mg/L	0.04	0.040	100	80-120	
Cobalt	mg/L	0.04	0.040	100	80-120	
Lead	mg/L	0.04	0.040	100	80-120	
Molybdenum	mg/L	0.04	0.041	101	80-120	
Selenium	mg/L	0.04	0.039	98	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348383 3348384

Parameter	Units	50342776001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.040	0.041	101	103	75-125	2	20	
Arsenic	mg/L	0.0031	0.04	0.04	0.039	0.038	89	88	75-125	1	20	
Barium	mg/L	0.064	0.04	0.04	0.10	0.10	101	101	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3348383 3348384

Parameter	Units	50342776001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.04	0.04	0.036	0.036	91	91	75-125	0	20	
Cadmium	mg/L	ND	0.04	0.04	0.036	0.036	90	91	75-125	1	20	
Chromium	mg/L	0.00029J	0.04	0.04	0.040	0.040	100	100	75-125	0	20	
Cobalt	mg/L	0.00028J	0.04	0.04	0.039	0.039	97	96	75-125	0	20	
Lead	mg/L	ND	0.04	0.04	0.040	0.040	100	100	75-125	1	20	
Molybdenum	mg/L	0.013	0.04	0.04	0.055	0.055	105	104	75-125	0	20	
Selenium	mg/L	ND	0.04	0.04	0.038	0.038	95	95	75-125	0	20	
Thallium	mg/L	ND	0.04	0.04	0.041	0.041	102	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730633
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343032001, 50343032002, 50343172001, 50343172002, 50343172003, 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

METHOD BLANK: 3353694 Matrix: Water
Associated Lab Samples: 50343032001, 50343032002, 50343172001, 50343172002, 50343172003, 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000036	05/03/23 00:07	
Arsenic	mg/L	ND	0.0010	0.000053	05/03/23 00:07	
Barium	mg/L	ND	0.0010	0.000051	05/03/23 00:07	
Beryllium	mg/L	ND	0.00020	0.000028	05/03/23 00:07	
Cadmium	mg/L	ND	0.00020	0.0000090	05/03/23 00:07	
Chromium	mg/L	ND	0.0020	0.00013	05/03/23 00:07	
Cobalt	mg/L	ND	0.0010	0.000032	05/03/23 00:07	
Lead	mg/L	ND	0.0010	0.000034	05/03/23 00:07	
Molybdenum	mg/L	ND	0.0010	0.000048	05/03/23 00:07	
Selenium	mg/L	ND	0.0010	0.00023	05/03/23 00:07	
Thallium	mg/L	ND	0.0010	0.000033	05/03/23 00:07	

LABORATORY CONTROL SAMPLE: 3353695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	102	80-120	
Arsenic	mg/L	0.04	0.037	94	80-120	
Barium	mg/L	0.04	0.039	98	80-120	
Beryllium	mg/L	0.04	0.039	97	80-120	
Cadmium	mg/L	0.04	0.039	98	80-120	
Chromium	mg/L	0.04	0.040	101	80-120	
Cobalt	mg/L	0.04	0.041	102	80-120	
Lead	mg/L	0.04	0.040	101	80-120	
Molybdenum	mg/L	0.04	0.042	104	80-120	
Selenium	mg/L	0.04	0.040	99	80-120	
Thallium	mg/L	0.04	0.041	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353696 3353697

Parameter	Units	50343172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.000072J	0.04	0.04	0.041	0.042	103	105	75-125	2	20	
Arsenic	mg/L	0.00050J	0.04	0.04	0.038	0.039	93	95	75-125	2	20	
Barium	mg/L	0.11	0.04	0.04	0.14	0.15	94	101	75-125	2	20	
Beryllium	mg/L	ND	0.04	0.04	0.040	0.040	99	101	75-125	2	20	
Cadmium	mg/L	ND	0.04	0.04	0.038	0.039	95	97	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353696 3353697

Parameter	Units	50343172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00032J	0.04	0.04	0.040	0.040	98	100	75-125	2	20	
Cobalt	mg/L	0.000077J	0.04	0.04	0.039	0.040	97	100	75-125	3	20	
Lead	mg/L	0.000036J	0.04	0.04	0.040	0.041	101	102	75-125	1	20	
Molybdenum	mg/L	0.0046	0.04	0.04	0.046	0.047	103	105	75-125	1	20	
Selenium	mg/L	ND	0.04	0.04	0.039	0.041	98	101	75-125	3	20	
Thallium	mg/L	ND	0.04	0.04	0.041	0.042	103	105	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 732043
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

METHOD BLANK: 3359829 Matrix: Water
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000036	05/10/23 17:06	
Arsenic	mg/L	ND	0.0010	0.000053	05/10/23 17:06	
Barium	mg/L	ND	0.0010	0.000051	05/10/23 17:06	
Beryllium	mg/L	ND	0.00020	0.000028	05/10/23 17:06	
Cadmium	mg/L	ND	0.00020	0.0000090	05/10/23 17:06	
Chromium	mg/L	ND	0.0020	0.00013	05/10/23 17:06	
Cobalt	mg/L	ND	0.0010	0.000032	05/10/23 17:06	
Lead	mg/L	ND	0.0010	0.000034	05/10/23 17:06	
Molybdenum	mg/L	ND	0.0010	0.000048	05/10/23 17:06	
Selenium	mg/L	ND	0.0010	0.00023	05/10/23 17:06	
Thallium	mg/L	ND	0.0010	0.000033	05/10/23 17:06	

LABORATORY CONTROL SAMPLE: 3359830

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.042	104	80-120	
Arsenic	mg/L	0.04	0.040	99	80-120	
Barium	mg/L	0.04	0.040	99	80-120	
Beryllium	mg/L	0.04	0.041	103	80-120	
Cadmium	mg/L	0.04	0.039	98	80-120	
Chromium	mg/L	0.04	0.041	103	80-120	
Cobalt	mg/L	0.04	0.041	103	80-120	
Lead	mg/L	0.04	0.041	102	80-120	
Molybdenum	mg/L	0.04	0.041	102	80-120	
Selenium	mg/L	0.04	0.040	100	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359831 3359832

Parameter	Units	50343920002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00027J	0.04	0.04	0.042	0.042	105	105	75-125	0	20	
Arsenic	mg/L	0.0023	0.04	0.04	0.042	0.042	100	99	75-125	1	20	
Barium	mg/L	0.015	0.04	0.04	0.054	0.055	100	101	75-125	1	20	
Beryllium	mg/L	ND	0.04	0.04	0.042	0.041	104	103	75-125	1	20	
Cadmium	mg/L	0.000013J	0.04	0.04	0.040	0.040	99	100	75-125	1	20	
Chromium	mg/L	0.00074J	0.04	0.04	0.042	0.042	103	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359831 3359832

Parameter	Units	50343920002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.00068J	0.04	0.04	0.041	0.041	101	100	75-125	0	20	
Lead	mg/L	0.00025J	0.04	0.04	0.041	0.041	102	102	75-125	0	20	
Molybdenum	mg/L	0.0031	0.04	0.04	0.045	0.044	104	103	75-125	1	20	
Selenium	mg/L	0.00028J	0.04	0.04	0.040	0.040	98	99	75-125	0	20	
Thallium	mg/L	ND	0.04	0.04	0.042	0.042	104	105	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 728407
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50341962001, 50341962002

METHOD BLANK: 3342778 Matrix: Water
Associated Lab Samples: 50341962001, 50341962002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/18/23 08:25	

LABORATORY CONTROL SAMPLE: 3342779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	271	90	80-120	

SAMPLE DUPLICATE: 3342780

Parameter	Units	50341972001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	328	323	2	10	

SAMPLE DUPLICATE: 3342781

Parameter	Units	50341972006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	586	594	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 728660
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342144001, 50342144002

METHOD BLANK: 3343815 Matrix: Water
Associated Lab Samples: 50342144001, 50342144002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/19/23 08:35	

LABORATORY CONTROL SAMPLE: 3343816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	276	92	80-120	

SAMPLE DUPLICATE: 3343817

Parameter	Units	50342111003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	98	103	5	10	

SAMPLE DUPLICATE: 3343818

Parameter	Units	50342144002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	472	463	2	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 728738
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004

METHOD BLANK: 3344096 Matrix: Water
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/19/23 16:54	

LABORATORY CONTROL SAMPLE: 3344097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	274	91	80-120	

SAMPLE DUPLICATE: 3344098

Parameter	Units	50342278009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	7750	7660	1	10	

SAMPLE DUPLICATE: 3344099

Parameter	Units	50342283003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1140	1150	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 728921 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342290005, 50342290006, 50342402001, 50342402002, 50342402003

METHOD BLANK: 3344856 Matrix: Water
Associated Lab Samples: 50342290005, 50342290006, 50342402001, 50342402002, 50342402003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/20/23 09:54	

LABORATORY CONTROL SAMPLE: 3344857

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	278	93	80-120	

SAMPLE DUPLICATE: 3344858

Parameter	Units	50342290005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	217	218	0	10	

SAMPLE DUPLICATE: 3344859

Parameter	Units	50342535001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1530	1490	3	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729143
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342402004

METHOD BLANK: 3346184 Matrix: Water
Associated Lab Samples: 50342402004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/21/23 08:22	

LABORATORY CONTROL SAMPLE: 3346185

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	273	91	80-120	

SAMPLE DUPLICATE: 3346186

Parameter	Units	50342354003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	374	375	0	10	

SAMPLE DUPLICATE: 3346187

Parameter	Units	50342433005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1200	1190	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729681
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342608001

METHOD BLANK: 3348524 Matrix: Water
Associated Lab Samples: 50342608001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/25/23 11:24	

LABORATORY CONTROL SAMPLE: 3348525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3348527

Parameter	Units	50342601002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	480	493	3	10	

SAMPLE DUPLICATE: 3348610

Parameter	Units	50342604001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	4400	4340	2	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729698 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

METHOD BLANK: 3348652 Matrix: Water
Associated Lab Samples: 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/25/23 11:40	

LABORATORY CONTROL SAMPLE: 3348653

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	280	93	80-120	

SAMPLE DUPLICATE: 3348654

Parameter	Units	50342608002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1370	1330	3	10	

SAMPLE DUPLICATE: 3348655

Parameter	Units	50342694003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2850	2890	2	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729886
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342776001, 50342776002

METHOD BLANK: 3349670 Matrix: Water
Associated Lab Samples: 50342776001, 50342776002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/26/23 08:55	

LABORATORY CONTROL SAMPLE: 3349671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	276	92	80-120	

SAMPLE DUPLICATE: 3349672

Parameter	Units	50342752003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	626000 ug/L	614	2	10	

SAMPLE DUPLICATE: 3349673

Parameter	Units	50342776001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1320	1310	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729888 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342776003, 50342776004, 50342776005, 50342776006, 50342776007

METHOD BLANK: 3349684 Matrix: Water
Associated Lab Samples: 50342776003, 50342776004, 50342776005, 50342776006, 50342776007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/26/23 09:08	

LABORATORY CONTROL SAMPLE: 3349685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	282	94	80-120	

SAMPLE DUPLICATE: 3349686

Parameter	Units	50342799003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	738	750	2	10	

SAMPLE DUPLICATE: 3349687

Parameter	Units	50342896007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3100	3100	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730185 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

METHOD BLANK: 3350998 Matrix: Water
Associated Lab Samples: 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/27/23 09:07	

LABORATORY CONTROL SAMPLE: 3350999

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	293	98	80-120	

SAMPLE DUPLICATE: 3351000

Parameter	Units	50342805002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	707000 ug/L	712	1	10	

SAMPLE DUPLICATE: 3351001

Parameter	Units	50342909002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2050	2050	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730413
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343032001, 50343032002

METHOD BLANK: 3352198 Matrix: Water
Associated Lab Samples: 50343032001, 50343032002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/28/23 08:26	

LABORATORY CONTROL SAMPLE: 3352199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3352200

Parameter	Units	50342943001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	325	321	1	10	

SAMPLE DUPLICATE: 3352201

Parameter	Units	50342943002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	475	473	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730630 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343172001, 50343172002, 50343172003

METHOD BLANK: 3353686 Matrix: Water
Associated Lab Samples: 50343172001, 50343172002, 50343172003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	04/29/23 08:16	

LABORATORY CONTROL SAMPLE: 3353687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	274	91	80-120	

SAMPLE DUPLICATE: 3353688

Parameter	Units	50343144005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1140	1110	2	10	

SAMPLE DUPLICATE: 3353689

Parameter	Units	50343172002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	540	532	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730811 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

METHOD BLANK: 3354210 Matrix: Water
Associated Lab Samples: 50343254001, 50343254002, 50343255001, 50343255002, 50343255003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/01/23 11:01	

LABORATORY CONTROL SAMPLE: 3354211

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3354212

Parameter	Units	50343254001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1170	1170	1	10	

SAMPLE DUPLICATE: 3354213

Parameter	Units	50343274003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	209	202	3	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731387
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343612001, 50343612002

METHOD BLANK: 3356343 Matrix: Water
Associated Lab Samples: 50343612001, 50343612002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/03/23 14:23	

LABORATORY CONTROL SAMPLE: 3356344

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3356345

Parameter	Units	50343644001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1230	1240	1	10	

SAMPLE DUPLICATE: 3356346

Parameter	Units	50343595002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	371	375	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731396
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343612003, 50343612004

METHOD BLANK: 3356369 Matrix: Water
Associated Lab Samples: 50343612003, 50343612004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/03/23 14:50	

LABORATORY CONTROL SAMPLE: 3356370

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3356371

Parameter	Units	50343615001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	884	869	2	10	

SAMPLE DUPLICATE: 3356372

Parameter	Units	50343616003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1920	1910	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 729956
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342144001

SAMPLE DUPLICATE: 3350025

Parameter	Units	50342799003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730031
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50341962001, 50341962002

SAMPLE DUPLICATE: 3350303

Parameter	Units	50341967001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.3	8.3	0	2	H3

SAMPLE DUPLICATE: 3350304

Parameter	Units	50341962002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.5	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730168
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50342144002

SAMPLE DUPLICATE: 3350928

Parameter	Units	50342144002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730170
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342290001, 50342290002, 50342290003, 50342290004, 50342290005, 50342290006

SAMPLE DUPLICATE: 3350934

Parameter	Units	50342601002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	8.0	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 730199
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342402001, 50342402002, 50342402003, 50342402004

SAMPLE DUPLICATE: 3351044

Parameter	Units	50342402001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.2	0	2	H3

SAMPLE DUPLICATE: 3351045

Parameter	Units	50342354003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731127
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342608001, 50342608002, 50342608003, 50342608004, 50342608005, 50342608006

SAMPLE DUPLICATE: 3355315

Parameter	Units	10650316001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	1	2	H3

SAMPLE DUPLICATE: 3355316

Parameter	Units	50343519001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	5.7	5.7	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 731310
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342776001, 50342776002, 50342776003, 50342776004, 50342776005, 50342776006, 50342776007

SAMPLE DUPLICATE: 3356110

Parameter	Units	50342776001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	1	2	H3

SAMPLE DUPLICATE: 3356111

Parameter	Units	50342776002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 732145
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50342909001, 50342909002, 50342909003, 50342912001, 50342912002

SAMPLE DUPLICATE: 3360327

Parameter	Units	50342909001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	0	2	H3

SAMPLE DUPLICATE: 3360328

Parameter	Units	50343477002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 732299
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343032001, 50343032002

SAMPLE DUPLICATE: 3360756

Parameter	Units	50341682001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	2	H3

SAMPLE DUPLICATE: 3360757

Parameter	Units	50343589002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.6	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 732452
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343172001, 50343172002, 50343172003

SAMPLE DUPLICATE: 3361532

Parameter	Units	50343172002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 732455
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343254001, 50343254002, 50343255001

SAMPLE DUPLICATE: 3361538

Parameter	Units	50343740001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.5	0	2	H3

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REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 732456
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50343255002, 50343255003

SAMPLE DUPLICATE: 3361540

Parameter	Units	50343255002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

QC Batch: 733176
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343612001, 50343612002, 50343612003, 50343612004

SAMPLE DUPLICATE: 3365024

Parameter	Units	50343583002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.1	1	2	H3

SAMPLE DUPLICATE: 3365025

Parameter	Units	50343616010 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.3	8.4	1	2	H3

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QUALIFIERS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	Closing CRDL 132%. Sample negative for Hg.
2d	Closing CRDL @ 39% recovery ELK 05/08/23
C0	Result confirmed by second analysis.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
F5	The recovery of the analyte in the CRDL standard (also known as the reporting limit verification) did not meet the acceptance criteria.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50341962001	**GAMW-14-041223**	EPA 9056	728551		
50341962002	**GAMW-14B-041223**	EPA 9056	728551		
50342144001	**GAMW-01-041323**	EPA 9056	729724		
50342144002	**GAMW-01B-041323**	EPA 9056	729724		
50342290001	**GAMW-03-041423**	EPA 9056	730038		
50342290002	**GAMW-03B-041423**	EPA 9056	730038		
50342290003	**GAMW-12-041423**	EPA 9056	730038		
50342290004	**GAMW-12B-041423**	EPA 9056	730038		
50342290005	**GAMW-13-041423**	EPA 9056	730038		
50342290006	**GAMW-13B-041423**	EPA 9056	730038		
50342402001	**GAMW-51-041523**	EPA 9056	730064		
50342402002	**GAMW-51B-041523**	EPA 9056	730064		
50342402003	**GAMW-59-041523**	EPA 9056	730064		
50342402004	**GAMW-59B-041523**	EPA 9056	730064		
50342608001	**GAMW-09-041923**	EPA 9056	730423		
50342608002	**GAMW-09B-041923**	EPA 9056	730423		
50342608003	**GAMW-17-041923**	EPA 9056	730423		
50342608004	**GAMW-18-041923**	EPA 9056	730423		
50342608005	**FD-01-041923**	EPA 9056	730423		
50342608006	**FB-01-041923**	EPA 9056	730423		
50342776001	**GAMW-17B-042023**	EPA 9056	730609		
50342776002	**GAMW-18B-042023**	EPA 9056	730609		
50342776003	**GAMW-60-042023**	EPA 9056	730609		
50342776004	**GAMW-60B-042023**	EPA 9056	730609		
50342776005	**GAMW-16R-042023**	EPA 9056	730609		
50342776006	**FD-02-042023**	EPA 9056	730609		
50342776007	**FB-02-042023**	EPA 9056	730609		
50342909001	**GAMW-08-042123**	EPA 9056	730834		
50342909002	**GAMW-08B-042123**	EPA 9056	730834		
50342909003	**GAMW-16BR-042123**	EPA 9056	730834		
50342912001	**GAMW-56-042123**	EPA 9056	730834		
50342912002	**GAMW-56B-042123**	EPA 9056	730834		
50343032001	**GAMW-53-042423**	EPA 9056	731451		
50343032002	**GAMW-53B-042423**	EPA 9056	731451		
50343172001	**GAMW-52-042523**	EPA 9056	731453		
50343172002	**GAMW-52B-042523**	EPA 9056	731616		
50343172003	**FD-03-042523**	EPA 9056	731453		
50343254001	**GAMW-55B-042623**	EPA 9056	731633		
50343254002	**FB-03-042623**	EPA 9056	731633		
50343255001	**GAMW-54-042623**	EPA 9056	731633		
50343255002	**GAMW-54B-042623**	EPA 9056	731633		
50343255003	**GAMW-55R-042623**	EPA 9056	731633		
50343612001	**GAMW-68-050123**	EPA 9056	732630		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343612002	**GAMW-68B-050123**	EPA 9056	732630		
50343612003	**FB-04-050123**	EPA 9056	732630		
50343612004	**FD-04-050123**	EPA 9056	732630		
50341962001	**GAMW-14-041223**	EPA 3010	729319	EPA 6010	729496
50341962002	**GAMW-14B-041223**	EPA 3010	729319	EPA 6010	729496
50342144001	**GAMW-01-041323**	EPA 3010	729377	EPA 6010	729963
50342144002	**GAMW-01B-041323**	EPA 3010	729377	EPA 6010	729963
50342290001	**GAMW-03-041423**	EPA 3010	729382	EPA 6010	729983
50342290002	**GAMW-03B-041423**	EPA 3010	729382	EPA 6010	729983
50342290003	**GAMW-12-041423**	EPA 3010	729382	EPA 6010	729983
50342290004	**GAMW-12B-041423**	EPA 3010	729382	EPA 6010	729983
50342290005	**GAMW-13-041423**	EPA 3010	729382	EPA 6010	729983
50342290006	**GAMW-13B-041423**	EPA 3010	729382	EPA 6010	729983
50342402001	**GAMW-51-041523**	EPA 3010	729386	EPA 6010	729995
50342402002	**GAMW-51B-041523**	EPA 3010	729386	EPA 6010	729995
50342402003	**GAMW-59-041523**	EPA 3010	729386	EPA 6010	729995
50342402004	**GAMW-59B-041523**	EPA 3010	729386	EPA 6010	729995
50342608001	**GAMW-09-041923**	EPA 3010	729393	EPA 6010	730670
50342608002	**GAMW-09B-041923**	EPA 3010	729393	EPA 6010	730670
50342608003	**GAMW-17-041923**	EPA 3010	729393	EPA 6010	730670
50342608004	**GAMW-18-041923**	EPA 3010	729393	EPA 6010	730670
50342608005	**FD-01-041923**	EPA 3010	729393	EPA 6010	730670
50342608006	**FB-01-041923**	EPA 3010	729393	EPA 6010	730670
50342776001	**GAMW-17B-042023**	EPA 3010	730692	EPA 6010	731352
50342776002	**GAMW-18B-042023**	EPA 3010	730692	EPA 6010	731352
50342776003	**GAMW-60-042023**	EPA 3010	730692	EPA 6010	731352
50342776004	**GAMW-60B-042023**	EPA 3010	730692	EPA 6010	731352
50342776005	**GAMW-16R-042023**	EPA 3010	730692	EPA 6010	731352
50342776006	**FD-02-042023**	EPA 3010	730692	EPA 6010	731352
50342776007	**FB-02-042023**	EPA 3010	730692	EPA 6010	731352
50342909001	**GAMW-08-042123**	EPA 3010	731076	EPA 6010	731554
50342909002	**GAMW-08B-042123**	EPA 3010	731076	EPA 6010	731554
50342909003	**GAMW-16BR-042123**	EPA 3010	731076	EPA 6010	731554
50342912001	**GAMW-56-042123**	EPA 3010	731076	EPA 6010	731554
50342912002	**GAMW-56B-042123**	EPA 3010	731076	EPA 6010	731554
50343032001	**GAMW-53-042423**	EPA 3010	731076	EPA 6010	731554
50343032002	**GAMW-53B-042423**	EPA 3010	731076	EPA 6010	731554
50343172001	**GAMW-52-042523**	EPA 3010	731406	EPA 6010	732157
50343172002	**GAMW-52B-042523**	EPA 3010	731406	EPA 6010	732157
50343172003	**FD-03-042523**	EPA 3010	731406	EPA 6010	732157
50343254001	**GAMW-55B-042623**	EPA 3010	731406	EPA 6010	732157
50343254002	**FB-03-042623**	EPA 3010	731406	EPA 6010	732157
50343255001	**GAMW-54-042623**	EPA 3010	731406	EPA 6010	732157
50343255002	**GAMW-54B-042623**	EPA 3010	731406	EPA 6010	732157
50343255003	**GAMW-55R-042623**	EPA 3010	731406	EPA 6010	732157

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343612001	**GAMW-68-050123**	EPA 3010	732537	EPA 6010	733200
50343612002	**GAMW-68B-050123**	EPA 3010	732537	EPA 6010	733200
50343612003	**FB-04-050123**	EPA 3010	732537	EPA 6010	733200
50343612004	**FD-04-050123**	EPA 3010	732537	EPA 6010	733200
50341962001	**GAMW-14-041223**	EPA 200.2	728110	EPA 6020	728323
50341962002	**GAMW-14B-041223**	EPA 200.2	728110	EPA 6020	728323
50342144001	**GAMW-01-041323**	EPA 200.2	728110	EPA 6020	728323
50342144002	**GAMW-01B-041323**	EPA 200.2	728110	EPA 6020	728323
50342290001	**GAMW-03-041423**	EPA 200.2	729332	EPA 6020	729468
50342290002	**GAMW-03B-041423**	EPA 200.2	729332	EPA 6020	729468
50342290003	**GAMW-12-041423**	EPA 200.2	729332	EPA 6020	729468
50342290004	**GAMW-12B-041423**	EPA 200.2	729332	EPA 6020	729468
50342290005	**GAMW-13-041423**	EPA 200.2	729332	EPA 6020	729468
50342290006	**GAMW-13B-041423**	EPA 200.2	729332	EPA 6020	729468
50342402001	**GAMW-51-041523**	EPA 200.2	729332	EPA 6020	729468
50342402002	**GAMW-51B-041523**	EPA 200.2	729332	EPA 6020	729468
50342402003	**GAMW-59-041523**	EPA 200.2	729332	EPA 6020	729468
50342402004	**GAMW-59B-041523**	EPA 200.2	729332	EPA 6020	729468
50342608001	**GAMW-09-041923**	EPA 200.2	729632	EPA 6020	729926
50342608002	**GAMW-09B-041923**	EPA 200.2	729632	EPA 6020	729926
50342608003	**GAMW-17-041923**	EPA 200.2	729632	EPA 6020	729926
50342608004	**GAMW-18-041923**	EPA 200.2	729632	EPA 6020	729926
50342608005	**FD-01-041923**	EPA 200.2	729632	EPA 6020	729926
50342608006	**FB-01-041923**	EPA 200.2	729632	EPA 6020	729926
50342776001	**GAMW-17B-042023**	EPA 200.2	729632	EPA 6020	729926
50342776002	**GAMW-18B-042023**	EPA 200.2	729632	EPA 6020	729926
50342776003	**GAMW-60-042023**	EPA 200.2	729632	EPA 6020	729926
50342776004	**GAMW-60B-042023**	EPA 200.2	729632	EPA 6020	729926
50342776005	**GAMW-16R-042023**	EPA 200.2	729632	EPA 6020	729926
50342776006	**FD-02-042023**	EPA 200.2	729632	EPA 6020	729926
50342776007	**FB-02-042023**	EPA 200.2	729632	EPA 6020	729926
50342909001	**GAMW-08-042123**	EPA 200.2	729632	EPA 6020	729926
50342909002	**GAMW-08B-042123**	EPA 200.2	729632	EPA 6020	729926
50342909003	**GAMW-16BR-042123**	EPA 200.2	729632	EPA 6020	729926
50342912001	**GAMW-56-042123**	EPA 200.2	729632	EPA 6020	729926
50342912002	**GAMW-56B-042123**	EPA 200.2	729632	EPA 6020	729926
50343032001	**GAMW-53-042423**	EPA 200.2	730633	EPA 6020	730839
50343032002	**GAMW-53B-042423**	EPA 200.2	730633	EPA 6020	730839
50343172001	**GAMW-52-042523**	EPA 200.2	730633	EPA 6020	730839
50343172002	**GAMW-52B-042523**	EPA 200.2	730633	EPA 6020	730839
50343172003	**FD-03-042523**	EPA 200.2	730633	EPA 6020	730839
50343254001	**GAMW-55B-042623**	EPA 200.2	730633	EPA 6020	730839
50343254002	**FB-03-042623**	EPA 200.2	730633	EPA 6020	730839
50343255001	**GAMW-54-042623**	EPA 200.2	730633	EPA 6020	730839
50343255002	**GAMW-54B-042623**	EPA 200.2	730633	EPA 6020	730839
50343255003	**GAMW-55R-042623**	EPA 200.2	730633	EPA 6020	730839

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343612001	**GAMW-68-050123**	EPA 200.2	732043	EPA 6020	732222
50343612002	**GAMW-68B-050123**	EPA 200.2	732043	EPA 6020	732222
50343612003	**FB-04-050123**	EPA 200.2	732043	EPA 6020	732222
50343612004	**FD-04-050123**	EPA 200.2	732043	EPA 6020	732222
50341962001	**GAMW-14-041223**	EPA 7470	728756	EPA 7470	729128
50341962002	**GAMW-14B-041223**	EPA 7470	728756	EPA 7470	729128
50342144001	**GAMW-01-041323**	EPA 7470	728758	EPA 7470	729129
50342144002	**GAMW-01B-041323**	EPA 7470	728758	EPA 7470	729129
50342290001	**GAMW-03-041423**	EPA 7470	729845	EPA 7470	730077
50342290002	**GAMW-03B-041423**	EPA 7470	729845	EPA 7470	730077
50342290003	**GAMW-12-041423**	EPA 7470	729845	EPA 7470	730077
50342290004	**GAMW-12B-041423**	EPA 7470	729845	EPA 7470	730077
50342290005	**GAMW-13-041423**	EPA 7470	729845	EPA 7470	730077
50342290006	**GAMW-13B-041423**	EPA 7470	729845	EPA 7470	730077
50342402001	**GAMW-51-041523**	EPA 7470	729845	EPA 7470	730077
50342402002	**GAMW-51B-041523**	EPA 7470	729845	EPA 7470	730077
50342402003	**GAMW-59-041523**	EPA 7470	729845	EPA 7470	730077
50342402004	**GAMW-59B-041523**	EPA 7470	729845	EPA 7470	730077
50342608001	**GAMW-09-041923**	EPA 7470	729970	EPA 7470	731148
50342608002	**GAMW-09B-041923**	EPA 7470	729970	EPA 7470	731148
50342608003	**GAMW-17-041923**	EPA 7470	729970	EPA 7470	731148
50342608004	**GAMW-18-041923**	EPA 7470	729970	EPA 7470	731148
50342608005	**FD-01-041923**	EPA 7470	729970	EPA 7470	731148
50342608006	**FB-01-041923**	EPA 7470	729970	EPA 7470	731148
50342776001	**GAMW-17B-042023**	EPA 7470	730372	EPA 7470	730751
50342776002	**GAMW-18B-042023**	EPA 7470	730372	EPA 7470	730751
50342776003	**GAMW-60-042023**	EPA 7470	730372	EPA 7470	730751
50342776004	**GAMW-60B-042023**	EPA 7470	730372	EPA 7470	730751
50342776005	**GAMW-16R-042023**	EPA 7470	730372	EPA 7470	730751
50342776006	**FD-02-042023**	EPA 7470	730372	EPA 7470	730751
50342776007	**FB-02-042023**	EPA 7470	730372	EPA 7470	730751
50342909001	**GAMW-08-042123**	EPA 7470	730372	EPA 7470	730751
50342909002	**GAMW-08B-042123**	EPA 7470	730372	EPA 7470	730751
50342909003	**GAMW-16BR-042123**	EPA 7470	730372	EPA 7470	730751
50342912001	**GAMW-56-042123**	EPA 7470	730372	EPA 7470	730751
50342912002	**GAMW-56B-042123**	EPA 7470	730372	EPA 7470	730751
50343032001	**GAMW-53-042423**	EPA 7470	730914	EPA 7470	730968
50343032002	**GAMW-53B-042423**	EPA 7470	730914	EPA 7470	730968
50343172001	**GAMW-52-042523**	EPA 7470	730947	EPA 7470	731149
50343172002	**GAMW-52B-042523**	EPA 7470	730947	EPA 7470	731149
50343172003	**FD-03-042523**	EPA 7470	730947	EPA 7470	731149
50343254001	**GAMW-55B-042623**	EPA 7470	730947	EPA 7470	731149
50343254002	**FB-03-042623**	EPA 7470	730947	EPA 7470	731149
50343255001	**GAMW-54-042623**	EPA 7470	730947	EPA 7470	731149
50343255002	**GAMW-54B-042623**	EPA 7470	730947	EPA 7470	731149

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343255003	**GAMW-55R-042623**	EPA 7470	730947	EPA 7470	731149
50343612001	**GAMW-68-050123**	EPA 7470	731914	EPA 7470	732527
50343612002	**GAMW-68B-050123**	EPA 7470	731914	EPA 7470	732527
50343612003	**FB-04-050123**	EPA 7470	731914	EPA 7470	732527
50343612004	**FD-04-050123**	EPA 7470	731914	EPA 7470	732527
50341962001	**GAMW-14-041223**	SM 2540C	728407		
50341962002	**GAMW-14B-041223**	SM 2540C	728407		
50342144001	**GAMW-01-041323**	SM 2540C	728660		
50342144002	**GAMW-01B-041323**	SM 2540C	728660		
50342290001	**GAMW-03-041423**	SM 2540C	728738		
50342290002	**GAMW-03B-041423**	SM 2540C	728738		
50342290003	**GAMW-12-041423**	SM 2540C	728738		
50342290004	**GAMW-12B-041423**	SM 2540C	728738		
50342290005	**GAMW-13-041423**	SM 2540C	728921		
50342290006	**GAMW-13B-041423**	SM 2540C	728921		
50342402001	**GAMW-51-041523**	SM 2540C	728921		
50342402002	**GAMW-51B-041523**	SM 2540C	728921		
50342402003	**GAMW-59-041523**	SM 2540C	728921		
50342402004	**GAMW-59B-041523**	SM 2540C	729143		
50342608001	**GAMW-09-041923**	SM 2540C	729681		
50342608002	**GAMW-09B-041923**	SM 2540C	729698		
50342608003	**GAMW-17-041923**	SM 2540C	729698		
50342608004	**GAMW-18-041923**	SM 2540C	729698		
50342608005	**FD-01-041923**	SM 2540C	729698		
50342608006	**FB-01-041923**	SM 2540C	729698		
50342776001	**GAMW-17B-042023**	SM 2540C	729886		
50342776002	**GAMW-18B-042023**	SM 2540C	729886		
50342776003	**GAMW-60-042023**	SM 2540C	729888		
50342776004	**GAMW-60B-042023**	SM 2540C	729888		
50342776005	**GAMW-16R-042023**	SM 2540C	729888		
50342776006	**FD-02-042023**	SM 2540C	729888		
50342776007	**FB-02-042023**	SM 2540C	729888		
50342909001	**GAMW-08-042123**	SM 2540C	730185		
50342909002	**GAMW-08B-042123**	SM 2540C	730185		
50342909003	**GAMW-16BR-042123**	SM 2540C	730185		
50342912001	**GAMW-56-042123**	SM 2540C	730185		
50342912002	**GAMW-56B-042123**	SM 2540C	730185		
50343032001	**GAMW-53-042423**	SM 2540C	730413		
50343032002	**GAMW-53B-042423**	SM 2540C	730413		
50343172001	**GAMW-52-042523**	SM 2540C	730630		
50343172002	**GAMW-52B-042523**	SM 2540C	730630		
50343172003	**FD-03-042523**	SM 2540C	730630		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343254001	**GAMW-55B-042623**	SM 2540C	730811		
50343254002	**FB-03-042623**	SM 2540C	730811		
50343255001	**GAMW-54-042623**	SM 2540C	730811		
50343255002	**GAMW-54B-042623**	SM 2540C	730811		
50343255003	**GAMW-55R-042623**	SM 2540C	730811		
50343612001	**GAMW-68-050123**	SM 2540C	731387		
50343612002	**GAMW-68B-050123**	SM 2540C	731387		
50343612003	**FB-04-050123**	SM 2540C	731396		
50343612004	**FD-04-050123**	SM 2540C	731396		
50341962001	**GAMW-14-041223**	SM 4500-H+B	730031		
50341962002	**GAMW-14B-041223**	SM 4500-H+B	730031		
50342144001	**GAMW-01-041323**	SM 4500-H+B	729956		
50342144002	**GAMW-01B-041323**	SM 4500-H+B	730168		
50342290001	**GAMW-03-041423**	SM 4500-H+B	730170		
50342290002	**GAMW-03B-041423**	SM 4500-H+B	730170		
50342290003	**GAMW-12-041423**	SM 4500-H+B	730170		
50342290004	**GAMW-12B-041423**	SM 4500-H+B	730170		
50342290005	**GAMW-13-041423**	SM 4500-H+B	730170		
50342290006	**GAMW-13B-041423**	SM 4500-H+B	730170		
50342402001	**GAMW-51-041523**	SM 4500-H+B	730199		
50342402002	**GAMW-51B-041523**	SM 4500-H+B	730199		
50342402003	**GAMW-59-041523**	SM 4500-H+B	730199		
50342402004	**GAMW-59B-041523**	SM 4500-H+B	730199		
50342608001	**GAMW-09-041923**	SM 4500-H+B	731127		
50342608002	**GAMW-09B-041923**	SM 4500-H+B	731127		
50342608003	**GAMW-17-041923**	SM 4500-H+B	731127		
50342608004	**GAMW-18-041923**	SM 4500-H+B	731127		
50342608005	**FD-01-041923**	SM 4500-H+B	731127		
50342608006	**FB-01-041923**	SM 4500-H+B	731127		
50342776001	**GAMW-17B-042023**	SM 4500-H+B	731310		
50342776002	**GAMW-18B-042023**	SM 4500-H+B	731310		
50342776003	**GAMW-60-042023**	SM 4500-H+B	731310		
50342776004	**GAMW-60B-042023**	SM 4500-H+B	731310		
50342776005	**GAMW-16R-042023**	SM 4500-H+B	731310		
50342776006	**FD-02-042023**	SM 4500-H+B	731310		
50342776007	**FB-02-042023**	SM 4500-H+B	731310		
50342909001	**GAMW-08-042123**	SM 4500-H+B	732145		
50342909002	**GAMW-08B-042123**	SM 4500-H+B	732145		
50342909003	**GAMW-16BR-042123**	SM 4500-H+B	732145		
50342912001	**GAMW-56-042123**	SM 4500-H+B	732145		
50342912002	**GAMW-56B-042123**	SM 4500-H+B	732145		
50343032001	**GAMW-53-042423**	SM 4500-H+B	732299		
50343032002	**GAMW-53B-042423**	SM 4500-H+B	732299		

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343172001	**GAMW-52-042523**	SM 4500-H+B	732452		
50343172002	**GAMW-52B-042523**	SM 4500-H+B	732452		
50343172003	**FD-03-042523**	SM 4500-H+B	732452		
50343254001	**GAMW-55B-042623**	SM 4500-H+B	732455		
50343254002	**FB-03-042623**	SM 4500-H+B	732455		
50343255001	**GAMW-54-042623**	SM 4500-H+B	732455		
50343255002	**GAMW-54B-042623**	SM 4500-H+B	732456		
50343255003	**GAMW-55R-042623**	SM 4500-H+B	732456		
50343612001	**GAMW-68-050123**	SM 4500-H+B	733176		
50343612002	**GAMW-68B-050123**	SM 4500-H+B	733176		
50343612003	**FB-04-050123**	SM 4500-H+B	733176		
50343612004	**FD-04-050123**	SM 4500-H+B	733176		

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CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields m

WO# : 50341962

50341962

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	
	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
1	GAMW-01	WT																X	X	X	X	
2	GAMW-01B	WT																X	X	X	X	
3	GAMW-68	WT																X	X	X	X	
4	GAMW-68B	WT																X	X	X	X	
5	GAMW-03	WT																X	X	X	X	
6	GAMW-03B	WT																X	X	X	X	
7	GAMW-12	WT																X	X	X	X	
8	GAMW-12B	WT																X	X	X	X	
9	GAMW-13	WT																X	X	X	X	
10	GAMW-13B	WT																X	X	X	X	
11	GAMW-14 – 041223	WT	G			4/12/23	1340		3	2		1						X	X	X	X	001
12	GAMW-14B – 041223	WT	G			4/12/23	1325		3	2		1						X	X	X	X	002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	FE WSP	4/12/23	1600	FE Danielle Sylvia/Pace	4/13/23	0855	25	Y	Y	Y

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	DATE Signed:	4/12/23				

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 4/13/23 1222

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 (A) B C D E F
4. **Cooler Temperature(s):** 2.7°/2.5°C
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☑ Other Plastic
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only) / SBS / DI	VIALS					AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
																													Red	Yellow	Green	Black
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																	1	1	1									WT	✓			
12																	1	1	1									WT	✓			

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50342144

50342144

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:			
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177	Regulatory Agency	
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO		
Merrillville, IN 46410			Sarah Gilles	Address:			
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:			
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,	State / Location	
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1	IN	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-01 – 041323	WT				4/13/23	1135											X	X	X	X			QU1
2	GAMW-01B – 041323	WT				4/13/23	1250											X	X	X	X			MS/MSD 002
3	GAMW-68	WT																X	X	X	X			
4	GAMW-68B	WT																X	X	X	X			
5	GAMW-03	WT																X	X	X	X			
6	GAMW-03B	WT																X	X	X	X			
7	GAMW-12	WT																X	X	X	X			
8	GAMW-12B	WT																X	X	X	X			
9	GAMW-13	WT																X	X	X	X			
10	GAMW-13B	WT																X	X	X	X			
11	GAMW-14	WT																X	X	X	X			
12	GAMW-14B	WT																X	X	X	X			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	WSP	4/13/23	1600	FedEx						
	FedEx	4.14.23	0900	Nick Shields / PACE	4.14.23	0900	0.7	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GUZMAN

SIGNATURE of SAMPLER: [signature]

DATE Signed: 4/13/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 4·14·2023 1129

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B (C) D E F

4. **Cooler Temperature(s):** 0.7/0.7 | | | |
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Plasti Bag

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2)** **H2SO4 (<2)** **NaOH (>10)** **NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1	1									WT	✓			
2																	3	3	3									WT	✓			
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mus

WO# : 50342290

50342290

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	[redacted]	WT																	x	x	x	x		
2	[redacted]	WT																	x	x	x	x		
3	[redacted]	WT																	x	x	x	x		
4	[redacted]	WT																	x	x	x	x		
5	GAMW-03 — 041423	WT	G			4/14/23	1305		4	3		1						x	x	x	x		001
6	GAMW-03B — 041423	WT	G			4/14/23	1430		4	3		1						x	x	x	x		002
7	GAMW-12 — 041423	WT	G			4/14/23	1200		4	3		1						x	x	x	x		003
8	GAMW-12B — 041423	WT	G			4/14/23	1430		4	3		1						x	x	x	x		004
9	GAMW-13 — 041423	WT	G			4/14/23	0945		4	3		1						x	x	x	x		005
10	GAMW-13B — 041423	WT	G			4/14/23	1150		4	3		1						x	x	x	x		006
11	[redacted]	WT																	x	x	x	x		
12	[redacted]	WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	[signature] WSP	4/14/23	1700	FedEx						
	Fedex	4/17/23	0800	[signature]	4/17/23	0800	4.8	N	Y	Y

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	[signature]					
SIGNATURE of SAMPLER:	[signature]	DATE Signed: 4/14/23				

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 4/15/23 1352 -MW / MCS 4/17/23 0910

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No (leave blank if no seals were present)

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

.6/.6	4.8/4.8		

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Ziploc

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK; AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form MCS 4/17	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC										OTHER							
		MeOH (only)																													
		SBS																													
		DI																													
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																															
2																															
3																															
4																															
5																	1	1	1									5T	✓			
6																	↓	↓	↓									↓	↓			
7																															
8																															
9																															
10																	↓	↓	↓									↓	↓			
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

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WO# : 50342402

50342402

al Request Document

ll relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Inform	
Company: NiSource_WSP	Report To: Tom Has	e U126177
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO
Merrillville, IN 46410	Sarah Gilles	Address:
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:
Phone: (603)782-2433 Fax	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,
Requested Due Date: 10 day TAT	Project #: 314047789.011	Pace Profile #: 9045-1

Regulatory Agency	
State / Location	
	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
13	[redacted]	WT																X	X	X	X		
14	[redacted]	WT																X	X	X	X		
15	[redacted]	WT																X	X	X	X		
16	GAMW-43	WT																X	X	X	X		
17	[redacted]	WT																X	X	X	X		
18	[redacted]	WT																X	X	X	X		
19	[redacted]	WT																X	X	X	X		
20	GAMW-51 -041523	WT	G			4/15/23	1545		4	3		1						X	X	X	X		
21	GAMW-51B -041523	WT	G			4/15/23	1650		4	3		1						X	X	X	X		
22	[redacted]	WT																X	X	X	X		
23	[redacted]	WT																X	X	X	X		
24	[redacted]	WT																X	X	X	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	[signature] WSP	4/17/23	1630	Fedex						
	Fedex			Maureen Winlock	4/18/23	0900	2+4	Y	Y	Y
							15	Y	Y	Y

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	[signature]			TEMP in C	Received on Ice (Y/N)
SIGNATURE of SAMPLER:		DATE Signed: 4/17/23			Custody Sealed Cooler (Y/N)
					Samples Intact (Y/N)

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency: | State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
25	[redacted]	WT																	X	X	X	X	
26	GAMW-59 – 041523	WT	G			4/15/23	1810		4	3		1							X	X	X	X	
27	GAMW-59B – 041523	WT	G			4/15/23	1905		4	3		1							X	X	X	X	
28	[redacted]	WT																	X	X	X	X	
29	[redacted]	WT																	X	X	X	X	
30	[redacted]	WT																	X	X	X	X	
31	[redacted]	WT																	X	X	X	X	
32	[redacted]	WT																	X	X	X	X	
33	[redacted]	WT																	X	X	X	X	
34	[redacted]	WT																	X	X	X	X	
35	[redacted]	WT																	X	X	X	X	
36	[redacted]	WT																	X	X	X	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	[redacted] WSP	4/17/23	1630	Fedex						
	Fedex			Marcus Winkler	4/18/23	0900	2.4	Y	Y	Y
							1.0			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [redacted]

SIGNATURE of SAMPLER: [redacted] DATE Signed: 4/17/23

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 4/18/23 1246 - MW

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B (C) D E F
4. **Cooler Temperature(s):** 2.4/2.4 | 1.5/1.5 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:**		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC? Except TCs, which only require sample ID		✓	Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS: ~~MW~~ GAMW-59B-041523 not labelled with time on containers - mw 4/18/23

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	VIALS: MeOH (only) / SBS / DI / R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																	1	1	1									WT	✓			
9																	↓	↓	↓									↓	↓			
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 **of** 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VIALS: VOA VIAL HS (>6mm)	VIALS: VG9U	VIALS: DG9U	VIALS: VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																	1	1	1									SW	✓			
3																	↓	↓	↓									↓	↓			
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request Do

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WO# : 50342608

50342608

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140489.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
25	GAMW-58B	WT																	x	x	x	x		
26	GAMW-59	WT																	x	x	x	x		
27	GAMW-59B	WT																	x	x	x	x		
28	GAMW-60	WT																	x	x	x	x		
29	GAMW-60B	WT																	x	x	x	x		
30	GAMW-08	WT																	x	x	x	x		
31	GAMW-08B	WT																	x	x	x	x		
32	GAMW-09 – 041923	WT	G			4/19/23	1020		3	2		1							x	x	x	x		001
33	GAMW-09B – 041923	WT	G			4/19/23	1205		3	2		1							x	x	x	x		002
34	GAMW-16R	WT																	x	x	x	x		
35	GAMW-16BR	WT																	x	x	x	x		
36	GAMW-17 – 041923	WT	G			4/19/23	1340		3	2		1							x	x	x	x		003

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	FEDEX	4/19/23		FEDEX						
	FEDEX	4/20/23	0910		4/20/23	0910	2.3	Y	Y	Y
							2.8			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. BUZZMAN

SIGNATURE of SAMPLER:

DATE Signed: 4/19/23

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Page : 2 of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency: —
State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N)	Analyses Test	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS																	Y/N							
37	[redacted]	WT																		x	x	x	x		
38	GAMW-18 - 041923	WT	G			4/19/23	1340		3	2		1								x	x	x	x		004
39	[redacted]	WT																		x	x	x	x		
40	[redacted]	WT																		x	x	x	x		
41	GAMW-46B	WT																		x	x	x	x		
42	GAMW-52	WT																		x	x	x	x		
43	[redacted]	WT																		x	x	x	x		
44	[redacted]	WT																		x	x	x	x		
45	GAMW-53B	WT																		x	x	x	x		
46	[redacted]	WT																		x	x	x	x		
47	[redacted]	WT																		x	x	x	x		
48	GAMW-55R	WT																		x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	[redacted] TWSP	4/19/23		TWSP						
	TWSP	4/20/23	0910		4/20/23	0910	2.3	Y	Y	Y
							2.8			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. SUZMAN

SIGNATURE of SAMPLER: [redacted]

DATE Signed: 4/19/23

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page : 3 Of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
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Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																								
49	GAMW-55R	WT																	x	x	x	x		
50	GAMW-56	WT																	x	x	x	x		
51	GAMW-56R	WT																	x	x	x	x		
52	FD-01 – 041923	WT	G			4/19/23	1200		3	2		1							x	x	x	x		005
53	FD-02	WT																	x	x	x	x		
54	FD-03	WT																	x	x	x	x		
55	FD-04	WT																	x	x	x	x		
56	FD-05	WT																	x	x	x	x		
57	FB-01 – 041923	WT	G			4/19/23	1345		3	2		1							x	x	x	x		004
58	FB-02	WT																	x	x	x	x		
59	FB-03	WT																	x	x	x	x		
60	FB-04	WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	WSP	4/19/23		FedEx						
	FedEx	4/20/23	0900		4/20/23	0900	2.3	7	7	7
							2.8			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. Guzman

SIGNATURE of SAMPLER: DATE Signed: 4/19/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: [illegible] 4/25/23 1145

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 2.3/2.3 | 2.2/2.8 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** ~~HNO3~~ (<2) **H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS:

COC PAGE 1 **of** 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																	1	1	1									5	✓			
9																	1	1	1									5	✓			
10																																
11																																
12																	1	1	1									5	✓			

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS						AMBER GLASS							PLASTIC										OTHER						
		MeOH (only)																													
		SBS																													
		DI																													
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																															
2																	I	I	I									KS	✓			
3																															
4																															
5																															
6																															
7																															
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Container Codes

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DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
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JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
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BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

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BP4U	125mL unpreserved plastic
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COC PAGE 3 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS						AMBER GLASS							PLASTIC										OTHER								
		MeOH (only)																															
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COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																	
2																																	
3																																	
4																	1	1	1									MS	✓				
5																																	
6																																	
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DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
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CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
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BP4U	125mL unpreserved plastic
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CHAIN-OF-CUSTODY / Analytical Request D

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WO# : 50342776

50342776

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
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Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

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SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
37	GAMW-17B – 042023	WT	G			4/20/23	1025		3		2	1							x	x	x	x		MS3/MSD3 (U)
38	[redacted]	WT																	x	x	x	x		-
39	GAMW-18B – 042023	WT	G			4/20/23	1005		3		2	1							x	x	x	x		U2
40	[redacted]	WT																	x	x	x	x		
41	[redacted]	WT																	x	x	x	x		
42	[redacted]	WT																	x	x	x	x		
43	[redacted]	WT																	x	x	x	x		
44	[redacted]	WT																	x	x	x	x		
45	[redacted]	WT																	x	x	x	x		
46	[redacted]	WT																	x	x	x	x		
47	[redacted]	WT																	x	x	x	x		
48	[redacted]	WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	WSP	4/20/23	1630							
	Fedex	4/21/23	0910		4/21/23	0910	Gw	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:
DATE Signed: 4/20/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency: | State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
25	[redacted]	WT																	X	X	X	X		
26	[redacted]	WT																	X	X	X	X		
27	[redacted]	WT																	X	X	X	X		
28	GAMW-60 – 042023	WT	G			4/20/23	1115		3	2		1						X	X	X	X		003
29	GAMW-60B – 042023	WT	G			4/20/23	1225		3	2		1						X	X	X	X		004
30	[redacted]	WT																	X	X	X	X		
31	[redacted]	WT																	X	X	X	X		
32	[redacted]	WT																	X	X	X	X		
33	[redacted]	WT																	X	X	X	X		
34	GAMW-16R – 042023	WT	G			4/20/23	1355		3	2		1						X	X	X	X		005
35	[redacted]	WT																	X	X	X	X		
36	[redacted]	WT																	X	X	X	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	WSP	4/20/23	1630							
	Fedex	4/21/23	0910		4/21/23	0910	SOC Cur	4	4	4

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/20/23

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CHAIN-OF-CUSTODY / Analytical Request Document

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Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140478 9.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N)	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
49	[redacted]	WT																		x	x	x	x	
50	[redacted]SAMW-56	WT																		x	x	x	x	
51	[redacted]	WT																		x	x	x	x	
52	[redacted]FB-01	WT																		x	x	x	x	
53	FD-02 – 042023	WT	G			4/20/23	1200		3	2		1								x	x	x	x	UCL
54	[redacted]	WT																		x	x	x	x	
55	[redacted]FB-04	WT																		x	x	x	x	
56	[redacted]FD-05	WT																		x	x	x	x	
57	[redacted]	WT																		x	x	x	x	
58	FB-02 – 042023	WT	G			4/20/23	1230		3	[redacted]		1								x	x	x	x	007
59	[redacted]	WT																		x	x	x	x	
60	[redacted]FB-04	WT																		x	x	x	x	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	WSP	4/20/23	1630							
	Fedex	4/21/23	0910		4/21/23	0910	See Env	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GUZMAN

SIGNATURE of SAMPLER: [signature] DATE Signed: 4/20/23

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MCS 4/21/23 1033

1. Courier: ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. Thermometer: 1 2 3 4 5 6 A B C D E F

4. Cooler Temperature(s): (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.1/1.2	1.1/1.2	1.4/1.5	

5. Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. If temp. is over 6°C or under 0°C, was the PM notified?: ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	3	3	3													
2																																
3																	1	1	1										✓			
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	
~~CG3H~~	~~250mL clear glass HCl~~	~~AG3S~~	~~250mL H2SO4 amber glass~~	
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	

Plastic

BP1B	1L NaOH plastic		
BP1N	1L HNO3 plastic		
BP1S	1L H2SO4 plastic		
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
~~BP3F~~	~~250mL HNO3 plastic-field filtered~~		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
~~SL~~	~~Solid Solid~~
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER							
		MeOH (only) / SBS / DI																												
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																														
2																														
3																														
4																	1	1	1									SW	✓		
5																	1	1	1									SW	✓		
6																														
7																														
8																														
9																														
10																	1	1	1									SW	✓		
11																														
12																														

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid-Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 3 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER								
		MeOH (only)																													
		SBS																													
		DI																													
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																															
2																															
3																															
4																															
5																	1	1	1									NT ✓			
6																															
7																															
8																															
9																															
10																	1	1	1									NT ✓			
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
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JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	~~250mL HNO3 plastic field filtered~~
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
~~SL~~	~~Solid-Solid~~
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50342909

50342909

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N-OF-CUSTODY / Analytical Request Document

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Page : Of

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Merrillville, IN 46410	Sarah Gilles	Address:
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-1

Regulatory Agency:

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N)	Analyses Test: Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y/N						
25	[redacted]	WT																	x	x	x	x		
26	[redacted]	WT																	x	x	x	x		
27	[redacted]	WT																	x	x	x	x		
28	[redacted]	WT																	x	x	x	x		
29	[redacted]	WT																	x	x	x	x		
30	GAMW-08 — 042123	WT	G			4/21/23	0955		3	2		1							x	x	x	x		001
31	GAMW-08B — 042123	WT	G			4/21/23	1050		3	2		1							x	x	x	x		002
32	[redacted]	WT																	x	x	x	x		
33	[redacted]	WT																	x	x	x	x		
34	[redacted]	WT																	x	x	x	x		
35	GAMW-16BR — 042123	WT	G			4/21/23	0940		3	2		1							x	x	x	x		003
36	[redacted]	WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	WSP	4/21/23	1630	FedEx						
	FedEx	4.22.23	0915	Nicole Shields / PACE	4.22.23	0915	0.4 / 0.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [redacted]

SIGNATURE of SAMPLER: [redacted] DATE Signed: 4/21/23

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 4.22.2023 0940

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C (D) E F

4. **Cooler Temperature(s):** 0.4/0.4 | 0.3/0.3 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Plastic Bag

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis: ~~Nitrates by 353.2~~ NMS 4.22.23	X	X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VIALS: VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																																
3																																
4																																
5																																
6																	1	1	1									WT	✓			
7																	1	1	1									WT	✓			
8																																
9																																
10																																
11																	1	1	1									WT	✓			
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50342912

50342912

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO
Merrillville, IN 46410	Sarah Gilles	Address:
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,
Requested Due Date: 10 day TAT	Project #: 3140 4789.011	Pace Profile #: 9045-1

Regulatory Agency

State / Location: IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
49	GAMW-56B	WT																	x	x	x	x		
50	GAMW-56 – 042123	WT	G			4/21/23	1055		3	2		1							x	x	x	x		001
51	GAMW-56B – 042123	WT	G			4/21/23	1330		3	2		1							x	x	x	x		002
52	FB-01	WT																	x	x	x	x		
53	FB-02	WT																	x	x	x	x		
54	FB-03	WT																	x	x	x	x		
55	FD-04	WT																	x	x	x	x		
56	FD-05	WT																	x	x	x	x		
57	FB-01	WT																	x	x	x	x		
58	FB-02	WT																	x	x	x	x		
59	FB-03	WT																	x	x	x	x		
60	FB-04	WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	WSP	4/21/23	1630	FedEx						
	FedEx	4-22-23	0915	Nicole Shields / PACE	4-22-23	0915	0.4; 0.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. BRANDT

SIGNATURE of SAMPLER: DATE Signed: 4/21/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 4.22.2023 0940

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C (D) E F

4. **Cooler Temperature(s):** (Initial/Corrected)

0.4/0.4	0.3/0.3		

RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Plastic Bag

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrates by 353.2 NMS 4.22.23	X	X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																	1	1	1									WT	✓			
3																	1	1	1									WT	✓			
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical
WWW.PACELABS.COM

WO# : 50343032

50343032

Request Document

evant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:			
Company:	NiSource_WSP	Report To:	Tom Haskins	Jeff Loewe U126177	
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, [illegible] Sylvia	Company Name:	NIPSCO
Merrillville, IN 46410		Sarah Gilles		Address:	Regulatory Agency
Email:	Thomas.Haskins@wsp.com	Purchase Order #	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com, State / Location
Requested Due Date:	10 day TAT	Project #:	31404783.011/04	Pace Profile #:	9045-1 IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
37	[redacted]	WT																	X	X	X	X	
38	[redacted]	WT																	X	X	X	X	
39	[redacted]	WT																	X	X	X	X	
40	[redacted]	WT																	X	X	X	X	
41	[redacted]	WT																	X	X	X	X	
42	[redacted]	WT																	X	X	X	X	
43	[redacted]	WT																	X	X	X	X	
44	GAMW-53 - 042423	WT	G			4/24/23	1105		3	2		1							X	X	X	X	
45	GAMW-53B - 042423	WT	G			4/24/23	1250		3	2		1							X	X	X	X	
46	[redacted]	WT																	X	X	X	X	
47	[redacted]	WT																	X	X	X	X	
48	[redacted]	WT																	X	X	X	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	WSP	4/24/23	1600	FDEX						
	FDEX	4/25/23	0800		4/25/23	0800	1.1	>	>	>

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/24/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 4/25/23 1145

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 (A) B C D E F

4. **Cooler Temperature(s):** 13/11 _____ _____ _____
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containe that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER							
			SBS																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ Zn
			DI																											Red	Yellow	Green	Blue
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH Ac Zn
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																	1	1	1									SW	✓			
9																	1	1	1									SW	✓			
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
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DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
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WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
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CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50343172

50343172

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	Regulatory Agency
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Locaties
Requested Due Date: 10 day TAT	Project #: 31404789.011/04	Pace Profile #: 9045-1	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
37	[redacted]	WT																	X	X	X	X	
38	[redacted]	WT																	X	X	X	X	
39	[redacted]	WT																	X	X	X	X	
40	[redacted]	WT																	X	X	X	X	
41	[redacted]	WT							(6)										X	X	X	X	
42	GAMW-52 – 042523	WT	G			4/25/23	0925		3	2		1							X	X	X	X	
43	GAMW-52B – 042523	WT	G			4/25/23	1110		3	2		1							X	X	X	X	
44	[redacted]	WT																	X	X	X	X	
45	[redacted]	WT																	X	X	X	X	
46	GAMW-54	WT																	X	X	X	X	
47	GAMW-54B	WT																	X	X	X	X	
48	[redacted]	WT																	X	X	X	X	

Residual Chlorine (Y/N): 001; MS2/MSD2 002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**48 HOUR HOLD- Nitrate 353.2	[signature] / WSP	4/25/23	1300	[signature]			
	[signature]	4/26	0745	[signature]	4/26	0745	0.7 / 0.3

SAMPLER NAME AND SIGNATURE			SAMPLE CONDITIONS			
PRINT Name of SAMPLER: [signature]			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER: [signature]	DATE Signed: 4/25/23		0.7 / 0.3	Y	Y	Y

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011/04	Pace Profile #:	9045-1

Regulatory Agency:

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
48	[redacted]	WT																	x	x	x	x		
50	GAMW-56	WT																	x	x	x	x		
51	GAMW-56B	WT																	x	x	x	x		
52	[redacted]	WT																	x	x	x	x		
53	[redacted]	WT																	x	x	x	x		
54	FD-03 – 042523	WT	G			4/25/23	1200		3	2		1							x	x	x	x		003
55	[redacted]	WT																	x	x	x	x		
56	[redacted]	WT																	x	x	x	x		
57	[redacted]	WT																	x	x	x	x		
58	[redacted]	WT																	x	x	x	x		
59	[redacted]	WT																	x	x	x	x		
60	FB-04	WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	[signature] WSP	4/25/23	1300	[signature]						
	[signature]	4/26	0809	[signature]	4/26	0905	0.7	Y	Y	Y
							0.5			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [signature]

SIGNATURE of SAMPLER: [signature]

DATE Signed: 4/25/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 04/26/23 1325 SMK

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D (E) F

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

0.7/0.7	0.5/0.5		

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS					AMBER GLASS							PLASTIC									OTHER				Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
		MeOH (only) SBS DI																													
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit						
1																															
2																															
3																															
4																															
5																															
6																	1/3	1/3	1/3								4	✓			
7																											1	✓			
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER					
		SBS																											
		DI																											
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																														
2																														
3																														
4																														
5																														
6																	1	1	1									4	✓			
7																														
8																														
9																														
10																														
11																														
12																														

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50343254

50343254

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency:

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
49	GAMW-55B -042623	WT	G			4/24/23	1355		3	2		1						X	X	X	X		001
50	[redacted]	WT																X	X	X	X		
51	[redacted]GAMW-56B	WT																X	X	X	X		
52	[redacted]	WT																X	X	X	X		
53	FD-02	WT																X	X	X	X		
54	[redacted]	WT																X	X	X	X		
55	[redacted]	WT																X	X	X	X		
56	[redacted]	WT																X	X	X	X		
57	[redacted]	WT																X	X	X	X		
58	[redacted]	WT																X	X	X	X		
59	FB-03 -042623	WT	G			4/24/23	1130		3	2		1						X	X	X	X		
60	[redacted]	WT																X	X	X	X		002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	WSP	4/24/23	1600							
	FG	4/27/23	0855	FG	4/27/23	0855	SEC	4	4	4

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/24/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DD 4/27/23 1127

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 (A) B C D E F
4. **Cooler Temperature(s):** 1.9/1.7 | 2.0/1.8 | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrate	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS						AMBER GLASS							PLASTIC									OTHER						
		MeOH (only)																												
		SBS																												
		DI																												
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	/	/	/								WT	✓			
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																	/	/	/								WT	✓			
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b

WO# : 50343255

50343255

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
37	[redacted]	WT																	x	x	x	x		
38	[redacted]	WT																	x	x	x	x		
39	[redacted]	WT																	x	x	x	x		
40	[redacted]	WT																	x	x	x	x		
41	[redacted]	WT																	x	x	x	x		
42	[redacted]	WT																	x	x	x	x		
43	[redacted]	WT																	x	x	x	x		
44	[redacted]	WT																	x	x	x	x		
45	[redacted]	WT																	x	x	x	x		
46	GAMW-54 – 042623	WT	G			4/26/23	1005		3	2		1						x	x	x	x		UU1
47	GAMW-54B – 042623	WT	G			4/26/23	1120		3	2		1						x	x	x	x		UU2
48	GAMW-55R – 042623	WT	G			4/26/23	1235		3	2		1						x	x	x	x		UU3

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	WSP	4/26/23	1600	FED EX						
	FED EX	4/27/23	0857		4/27/23	0805	4	4	4	

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:			
SIGNATURE of SAMPLER:		DATE Signed:	4/26/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DD 4/27/23 1127

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 (A) B C D E F

4. **Cooler Temperature(s):** 1.9/1.7 | 2.0/1.8 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** Nitrate	✓					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
			Headspace in VOA Vials (>6mm):	Present	Absent	No VOA Vials Sent
Containers Intact?:	✓		See Containter Count form for details			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS						AMBER GLASS							PLASTIC										OTHER							
		MeOH (only)																														
		SBS																														
		DI																														
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																	I	I	I													
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields m

WO# : 50343612

50343612

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
1	[redacted]	WT																	x	x	x	x	
2	[redacted]	WT																	x	x	x	x	
3	GAMW-68 — 050123	WT	G			5/1/23			3	2		1							x	x	x	x	
4	GAMW-68B — 050123	WT	G			5/1/23			3	2		1							x	x	x	x	
5	[redacted]	WT																	x	x	x	x	
6	[redacted]	WT																	x	x	x	x	
7	[redacted]	WT																	x	x	x	x	
8	[redacted]	WT																	x	x	x	x	
9	[redacted]	WT																	x	x	x	x	
10	[redacted]	WT																	x	x	x	x	
11	GAMW-14	WT																	x	x	x	x	
12	GAMW-14B	WT																	x	x	x	x	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	WSP	5/1/23	1700							
		5/2	0920		5/2	0920	0.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 5/1/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	21404789.011	Pace Profile #:	9045-1

Regulatory Agency:

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
61	[redacted] FB-04 - 050123	WT	G			5/1/23	1445		3	2		1							x	x	x	x		Q3
62	[redacted]																								
63	[redacted]																								
64	[redacted]																								
65	[redacted]																								
66	[redacted]																								
67	[redacted]																								
68	[redacted]																								
69	[redacted]																								
70	[redacted]																								
71	[redacted]																								
72	[redacted]																								

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	[signature] WSP	5/1/23	1700	[signature]						
	[signature]	5/2	0420	[signature]	5/2	0420	0.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [signature]

SIGNATURE of SAMPLER: [signature]

DATE Signed: 5/1/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 05/02/23 1240 SmK

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 6.9/10.9 _____ _____ _____
   (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS: Rcvd another FD-04-050123 @ 1200 not on COC-SmK

Analyze FD-04-050123 per D. Sylvia email. 05/02/23tms

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																																
3																	1	1	1									W	V			
4																	1	1	1									W	V			
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ontainer Codes

Glass

G9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
G9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
G9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
G9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
G9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
G9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
G9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
G9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
GKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
GFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
FU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
G3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
G3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1	1								SW	✓			
2																	↓	↓	↓	FD-04_050123							↓	✓			
3																							5/1/23	@	1200						
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
GFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
G3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
G3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
G1H	1L HCl clear glass	AG3U	250mL unpres amber glass
G1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

June 19, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory between April 13, 2023 and May 02, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
- Pace Analytical Services - Greensburg

Revised report replaces report dated 05/25/23. Samples moved per client request. 06/19/23tms

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

This report shall not be reproduced, except in full,
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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50341961001	GAMW-14-041223	Water	04/12/23 13:40	04/13/23 08:55
50341961002	GAMW-14B-041223	Water	04/12/23 13:25	04/13/23 08:55
50342143001	GAMW-01-041323	Water	04/13/23 11:35	04/14/23 09:00
50342143002	GAMW-01B-041323	Water	04/13/23 12:50	04/14/23 09:00
50342143003	GAMW-01B-041323 MS	Water	04/13/23 12:50	04/14/23 09:00
50342143004	GAMW-01B-041323 MSD	Water	04/13/23 12:50	04/14/23 09:00
50342291001	GAMW-03-041423	Water	04/14/23 13:05	04/17/23 08:00
50342291002	GAMW-03B-041423	Water	04/14/23 14:30	04/17/23 08:00
50342291003	GAMW-12-041423	Water	04/14/23 12:00	04/17/23 08:00
50342291004	GAMW-12B-041423	Water	04/14/23 14:30	04/17/23 08:00
50342291005	GAMW-13-041423	Water	04/14/23 09:45	04/17/23 08:00
50342291006	GAMW-13B-041423	Water	04/14/23 11:50	04/17/23 08:00
50342385001	GAMW-51-041523	Water	04/15/23 15:45	04/18/23 09:00
50342385002	GAMW-51B-041523	Water	04/15/23 16:50	04/18/23 09:00
50342385003	GAMW-59-041523	Water	04/15/23 18:10	04/18/23 09:00
50342385004	GAMW-59B-041523	Water	04/15/23 19:05	04/18/23 09:00
50342609001	GAMW-09-041923	Water	04/19/23 10:20	04/20/23 09:10
50342609002	GAMW-09B-041923	Water	04/19/23 12:05	04/20/23 09:10
50342609003	GAMW-17-041923	Water	04/19/23 13:40	04/20/23 09:10
50342609004	GAMW-18-041923	Water	04/19/23 13:40	04/20/23 09:10
50342609005	FD-01-041923	Water	04/19/23 12:00	04/20/23 09:10
50342609006	FB-01-041923	Water	04/19/23 13:45	04/20/23 09:10
50342779001	GAMW-17B-042023	Water	04/20/23 10:25	04/21/23 09:10
50342779002	GAMW-18B-042023	Water	04/20/23 10:05	04/21/23 09:10
50342779003	GAMW-60-042023	Water	04/20/23 11:15	04/21/23 09:10
50342779004	GAMW-60B-042023	Water	04/20/23 12:25	04/21/23 09:10
50342779005	GAMW-16R-042023	Water	04/20/23 13:55	04/21/23 09:10
50342779006	FD-02-042023	Water	04/20/23 12:00	04/21/23 09:10
50342779007	FB-02-042023	Water	04/20/23 12:30	04/21/23 09:10
50342779008	GAMW-17B-042023 MS	Water	04/20/23 10:25	04/21/23 09:10
50342779009	GAMW-17B-042023 MSD	Water	04/20/23 10:25	04/21/23 09:10
50342910001	GAMW-56-042123	Water	04/21/23 10:55	04/22/23 09:15
50342910002	GAMW-56B-042123	Water	04/21/23 13:30	04/22/23 09:15
50342911003	GAMW-16BR-042123	Water	04/21/23 09:40	04/22/23 09:15
50342911001	GAMW-08-042123	Water	04/21/23 09:55	04/22/23 09:15
50342911002	GAMW-08B-042123	Water	04/21/23 10:50	04/22/23 09:15
50343023001	GAMW-53-042423	Water	04/24/23 11:05	04/25/23 09:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343023002	**GAMW-53B-042423**	Water	04/24/23 12:50	04/25/23 09:00
50343169001	**GAMW-52-042523**	Water	04/25/23 09:25	04/26/23 09:05
50343169002	**GAMW-52B-042523**	Water	04/25/23 11:10	04/26/23 09:05
50343169003	**GAMW-52B-042523 MS**	Water	04/25/23 11:10	04/26/23 09:05
50343169004	**GAMW-52B-042523 MSD**	Water	04/25/23 11:10	04/26/23 09:05
50343169005	**FD-03-042523**	Water	04/25/23 12:00	04/26/23 09:05
50343609001	**GAMW-68-050123**	Water	05/01/23 12:25	05/02/23 09:20
50343609002	**GAMW-68B-050123**	Water	05/01/23 14:40	05/02/23 09:20
50343609003	**FB-04-050123**	Water	05/01/23 14:45	05/02/23 09:20
50343609004	**FD-04-050123**	Water	05/01/23 12:00	05/02/23 09:20
50343265001	**GAMW-54-042623**	Water	04/26/23 10:05	04/27/23 08:55
50343265002	**GAMW-54B-042623**	Water	04/26/23 11:20	04/27/23 08:55
50343265003	**GAMW-55R-042623**	Water	04/26/23 12:35	04/27/23 08:55
50343266001	**GAMW-55B-042623**	Water	04/26/23 13:55	04/27/23 08:55
50343266002	**FB-03-042623**	Water	04/26/23 11:30	04/27/23 08:55

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50341961001	GAMW-14-041223	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50341961002	GAMW-14B-041223	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342143001	GAMW-01-041323	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342143002	GAMW-01B-041323	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342143003	GAMW-01B-041323 MS	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50342143004	GAMW-01B-041323 MSD	EPA 903.1	JDZ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
50342291001	GAMW-03-041423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342291002	GAMW-03B-041423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342291003	GAMW-12-041423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342291004	GAMW-12B-041423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342291005	GAMW-13-041423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342291006	GAMW-13B-041423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342385001	GAMW-51-041523	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50342385002	GAMW-51B-041523	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342385003	GAMW-59-041523	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342385004	GAMW-59B-041523	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342609001	GAMW-09-041923	EPA 903.1	JAL	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342609002	GAMW-09B-041923	EPA 903.1	JAL	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342609003	GAMW-17-041923	EPA 903.1	JAL	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342609004	GAMW-18-041923	EPA 903.1	JAL	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342609005	FD-01-041923	EPA 903.1	JAL	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342609006	FB-01-041923	EPA 903.1	JAL	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342779001	GAMW-17B-042023	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342779002	GAMW-18B-042023	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342779003	GAMW-60-042023	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342779004	GAMW-60B-042023	EPA 903.1	CLM	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342779005	**GAMW-16R-042023**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342779006	**FD-02-042023**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342779007	**FB-02-042023**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342779008	**GAMW-17B-042023 MS**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50342779009	**GAMW-17B-042023 MSD**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50342910001	**GAMW-56-042123**	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342910002	**GAMW-56B-042123**	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342911003	**GAMW-16BR-042123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342911001	**GAMW-08-042123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50342911002	**GAMW-08B-042123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343023001	**GAMW-53-042423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343023002	**GAMW-53B-042423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343169001	**GAMW-52-042523**	EPA 903.1	CLM	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50343169002	**GAMW-52B-042523**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50343169003	**GAMW-52B-042523 MS**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50343169004	**GAMW-52B-042523 MSD**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
50343169005	**FD-03-042523**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50343609001	**GAMW-68-050123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343609002	**GAMW-68B-050123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343609003	**FB-04-050123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343609004	**FD-04-050123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343265001	**GAMW-54-042623**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343265002	**GAMW-54B-042623**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343265003	**GAMW-55R-042623**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343266001	**GAMW-55B-042623**	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343266002	**FB-03-042623**	EPA 903.1	JLJ	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50341961001	**GAMW-14-041223**					
EPA 903.1	Radium-226	-0.219 ± 0.380 (0.957) C:NA T:97%	pCi/L		04/27/23 15:16	
EPA 904.0	Radium-228	0.135 ± 0.408 (0.914) C:72% T:87%	pCi/L		04/25/23 15:10	
Total Radium Calculation	Total Radium	0.135 ± 0.788 (1.87)	pCi/L		04/27/23 17:48	
50341961002	**GAMW-14B-041223**					
EPA 903.1	Radium-226	1.25 ± 0.685 (0.790) C:NA T:91%	pCi/L		04/27/23 15:16	
EPA 904.0	Radium-228	1.52 ± 0.582 (0.917) C:73% T:86%	pCi/L		04/25/23 15:10	
Total Radium Calculation	Total Radium	2.77 ± 1.27 (1.71)	pCi/L		04/27/23 17:48	
50342143001	**GAMW-01-041323**					
EPA 903.1	Radium-226	0.400 ± 0.369 (0.538) C:NA T:83%	pCi/L		05/04/23 15:54	
EPA 904.0	Radium-228	0.218 ± 0.368 (0.802) C:80% T:83%	pCi/L		04/26/23 14:57	
Total Radium Calculation	Total Radium	0.618 ± 0.737 (1.34)	pCi/L		05/05/23 10:30	
50342143002	**GAMW-01B-041323**					
EPA 903.1	Radium-226	1.08 ± 0.530 (0.609) C:NA T:87%	pCi/L		05/04/23 15:54	
EPA 904.0	Radium-228	1.11 ± 0.429 (0.643) C:83% T:87%	pCi/L		04/26/23 14:58	
Total Radium Calculation	Total Radium	2.19 ± 0.959 (1.25)	pCi/L		05/05/23 10:30	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342143003	**GAMW-01B-041323 MS**					
EPA 903.1	Radium-226	67.24 %REC ± NA (NA) C:NA T:NA	pCi/L		05/04/23 15:54	1d
EPA 904.0	Radium-228	66.09 %REC ± NA (NA) C:NA T:NA	pCi/L		04/26/23 14:58	
50342143004	**GAMW-01B-041323 MSD**					
EPA 903.1	Radium-226	78.17 %REC 15.03RPD ± NA (NA) C:NA T:NA	pCi/L		05/04/23 16:06	
EPA 904.0	Radium-228	65.17 %REC 1.39RPD ± NA (NA) C:NA T:NA	pCi/L		04/26/23 14:58	
50342291001	**GAMW-03-041423**					
EPA 903.1	Radium-226	0.122 ± 0.379 (0.734) C:NA T:85%	pCi/L		05/01/23 16:03	
EPA 904.0	Radium-228	0.443 ± 0.399 (0.808) C:77% T:83%	pCi/L		04/27/23 15:49	
Total Radium Calculation	Total Radium	0.565 ± 0.778 (1.54)	pCi/L		05/03/23 12:51	
50342291002	**GAMW-03B-041423**					
EPA 903.1	Radium-226	0.175 ± 0.442 (0.821) C:NA T:87%	pCi/L		05/01/23 16:03	
EPA 904.0	Radium-228	0.227 ± 0.351 (0.758) C:78% T:85%	pCi/L		04/27/23 15:54	
Total Radium Calculation	Total Radium	0.402 ± 0.793 (1.58)	pCi/L		05/03/23 12:51	
50342291003	**GAMW-12-041423**					
EPA 903.1	Radium-226	0.761 ± 0.796 (1.25) C:NA T:88%	pCi/L		05/05/23 12:46	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342291003	**GAMW-12-041423**					
EPA 904.0	Radium-228	0.380 ± 0.365 (0.745) C:80% T:84%	pCi/L		04/27/23 15:54	
Total Radium Calculation	Total Radium	1.14 ± 1.16 (2.00)	pCi/L		05/05/23 15:39	
50342291004	**GAMW-12B-041423**					
EPA 903.1	Radium-226	0.266 ± 0.452 (0.798) C:NA T:94%	pCi/L		05/01/23 16:03	
EPA 904.0	Radium-228	0.528 ± 0.407 (0.789) C:74% T:81%	pCi/L		04/27/23 15:54	
Total Radium Calculation	Total Radium	0.794 ± 0.859 (1.59)	pCi/L		05/03/23 12:51	
50342291005	**GAMW-13-041423**					
EPA 903.1	Radium-226	0.203 ± 0.479 (0.887) C:NA T:84%	pCi/L		05/01/23 16:03	
EPA 904.0	Radium-228	0.286 ± 0.375 (0.799) C:76% T:83%	pCi/L		04/27/23 15:54	
Total Radium Calculation	Total Radium	0.489 ± 0.854 (1.69)	pCi/L		05/03/23 12:51	
50342291006	**GAMW-13B-041423**					
EPA 903.1	Radium-226	0.194 ± 0.492 (0.913) C:NA T:89%	pCi/L		05/01/23 16:19	
EPA 904.0	Radium-228	0.448 ± 0.374 (0.743) C:77% T:85%	pCi/L		04/27/23 15:57	
Total Radium Calculation	Total Radium	0.642 ± 0.866 (1.66)	pCi/L		05/03/23 12:51	
50342385001	**GAMW-51-041523**					
EPA 903.1	Radium-226	0.289 ± 0.469 (0.816) C:NA T:94%	pCi/L		05/03/23 14:13	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342385001	**GAMW-51-041523**					
EPA 904.0	Radium-228	0.442 ± 0.401 (0.814) C:76% T:83%	pCi/L		05/01/23 15:04	
Total Radium Calculation	Total Radium	0.731 ± 0.870 (1.63)	pCi/L		05/05/23 10:39	
50342385002	**GAMW-51B-041523**					
EPA 903.1	Radium-226	1.53 ± 0.698 (0.709) C:NA T:90%	pCi/L		05/03/23 14:13	
EPA 904.0	Radium-228	1.42 ± 0.496 (0.656) C:79% T:82%	pCi/L		05/01/23 15:04	
Total Radium Calculation	Total Radium	2.95 ± 1.19 (1.37)	pCi/L		05/05/23 10:39	
50342385003	**GAMW-59-041523**					
EPA 903.1	Radium-226	-0.0547 ± 0.355 (0.771) C:NA T:98%	pCi/L		05/03/23 14:13	
EPA 904.0	Radium-228	0.609 ± 0.371 (0.680) C:81% T:86%	pCi/L		05/01/23 15:04	
Total Radium Calculation	Total Radium	0.609 ± 0.726 (1.45)	pCi/L		05/05/23 10:39	
50342385004	**GAMW-59B-041523**					
EPA 903.1	Radium-226	0.545 ± 0.588 (0.949) C:NA T:94%	pCi/L		05/03/23 14:13	
EPA 904.0	Radium-228	1.25 ± 0.497 (0.767) C:80% T:82%	pCi/L		05/01/23 15:04	
Total Radium Calculation	Total Radium	1.80 ± 1.09 (1.72)	pCi/L		05/05/23 10:39	
50342609001	**GAMW-09-041923**					
EPA 903.1	Radium-226	0.724 ± 0.568 (0.790) C:NA T:93%	pCi/L		05/11/23 13:30	

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50342609001	**GAMW-09-041923**					
EPA 904.0	Radium-228	0.350 ± 0.419 (0.885) C:78% T:76%	pCi/L		05/04/23 15:16	
Total Radium Calculation	Total Radium	1.07 ± 0.987 (1.68)	pCi/L		05/12/23 15:41	
50342609002	**GAMW-09B-041923**					
EPA 903.1	Radium-226	0.363 ± 0.338 (0.445) C:NA T:94%	pCi/L		05/11/23 13:43	
EPA 904.0	Radium-228	0.655 ± 0.453 (0.888) C:79% T:86%	pCi/L		05/04/23 15:16	
Total Radium Calculation	Total Radium	1.02 ± 0.791 (1.33)	pCi/L		05/12/23 15:41	
50342609003	**GAMW-17-041923**					
EPA 903.1	Radium-226	0.207 ± 0.316 (0.508) C:NA T:88%	pCi/L		05/11/23 13:43	
EPA 904.0	Radium-228	0.380 ± 0.395 (0.823) C:76% T:90%	pCi/L		05/04/23 15:16	
Total Radium Calculation	Total Radium	0.587 ± 0.711 (1.33)	pCi/L		05/12/23 15:41	
50342609004	**GAMW-18-041923**					
EPA 903.1	Radium-226	0.261 ± 0.363 (0.607) C:NA T:88%	pCi/L		05/11/23 13:43	
EPA 904.0	Radium-228	0.543 ± 0.412 (0.815) C:76% T:86%	pCi/L		05/04/23 15:16	
Total Radium Calculation	Total Radium	0.804 ± 0.775 (1.42)	pCi/L		05/12/23 15:41	
50342609005	**FD-01-041923**					
EPA 903.1	Radium-226	0.203 ± 0.352 (0.629) C:NA T:91%	pCi/L		05/11/23 13:43	

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Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342609005	**FD-01-041923**					
EPA 904.0	Radium-228	1.21 ± 0.726 (1.35) C:78% T:73%	pCi/L		05/04/23 18:37	
Total Radium Calculation	Total Radium	1.41 ± 1.08 (1.98)	pCi/L		05/12/23 15:41	
50342609006	**FB-01-041923**					
EPA 903.1	Radium-226	0.0668 ± 0.507 (1.00) C:NA T:97%	pCi/L		05/11/23 13:43	
EPA 904.0	Radium-228	1.12 ± 0.577 (1.02) C:81% T:88%	pCi/L		05/04/23 18:37	
Total Radium Calculation	Total Radium	1.19 ± 1.08 (2.02)	pCi/L		05/12/23 15:41	
50342779001	**GAMW-17B-042023**					
EPA 903.1	Radium-226	0.563 ± 0.521 (0.758) C:NA T:85%	pCi/L		05/12/23 13:04	
EPA 904.0	Radium-228	0.849 ± 0.482 (0.903) C:77% T:87%	pCi/L		05/08/23 12:06	
Total Radium Calculation	Total Radium	1.41 ± 1.00 (1.66)	pCi/L		05/12/23 18:04	
50342779002	**GAMW-18B-042023**					
EPA 903.1	Radium-226	1.12 ± 0.666 (0.634) C:NA T:87%	pCi/L		05/12/23 13:04	
EPA 904.0	Radium-228	1.19 ± 0.460 (0.724) C:79% T:93%	pCi/L		05/08/23 12:06	
Total Radium Calculation	Total Radium	2.31 ± 1.13 (1.36)	pCi/L		05/12/23 18:04	
50342779003	**GAMW-60-042023**					
EPA 903.1	Radium-226	0.510 ± 0.709 (1.20) C:NA T:85%	pCi/L		05/12/23 13:04	

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Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342779003	**GAMW-60-042023**					
EPA 904.0	Radium-228	0.959 ± 0.446 (0.765) C:79% T:87%	pCi/L		05/08/23 12:06	
Total Radium Calculation	Total Radium	1.47 ± 1.16 (1.97)	pCi/L		05/12/23 18:04	
50342779004	**GAMW-60B-042023**					
EPA 903.1	Radium-226	1.57 ± 0.852 (0.860) C:NA T:79%	pCi/L		05/12/23 13:04	
EPA 904.0	Radium-228	2.09 ± 0.641 (0.835) C:75% T:86%	pCi/L		05/08/23 12:06	
Total Radium Calculation	Total Radium	3.66 ± 1.49 (1.70)	pCi/L		05/12/23 18:04	
50342779005	**GAMW-16R-042023**					
EPA 903.1	Radium-226	0.176 ± 0.488 (0.947) C:NA T:88%	pCi/L		05/12/23 13:04	
EPA 904.0	Radium-228	0.752 ± 0.417 (0.766) C:75% T:92%	pCi/L		05/08/23 12:00	
Total Radium Calculation	Total Radium	0.928 ± 0.905 (1.71)	pCi/L		05/12/23 18:04	
50342779006	**FD-02-042023**					
EPA 903.1	Radium-226	0.416 ± 0.492 (0.773) C:NA T:93%	pCi/L		05/12/23 13:04	
EPA 904.0	Radium-228	0.564 ± 0.397 (0.773) C:74% T:88%	pCi/L		05/08/23 12:00	
Total Radium Calculation	Total Radium	0.980 ± 0.889 (1.55)	pCi/L		05/12/23 18:04	
50342779007	**FB-02-042023**					
EPA 903.1	Radium-226	0.152 ± 0.596 (1.14) C:NA T:94%	pCi/L		05/12/23 13:04	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
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Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342779007	**FB-02-042023**					
EPA 904.0	Radium-228	0.884 ± 0.496 (0.913) C:71% T:79%	pCi/L		05/08/23 12:00	
Total Radium Calculation	Total Radium	1.04 ± 1.09 (2.05)	pCi/L		05/12/23 18:04	
50342779008	**GAMW-17B-042023 MS**					
EPA 903.1	Radium-226	92.65 %REC ± NA (NA) C:NA T:NA	pCi/L		05/12/23 13:18	
EPA 904.0	Radium-228	71.60 %REC ± NA (NA) C:NA T:NA	pCi/L		05/08/23 15:24	
50342779009	**GAMW-17B-042023 MSD**					
EPA 903.1	Radium-226	104.42 %REC 11.95RPD ± NA (NA) C:NA T:NA	pCi/L		05/12/23 13:18	
EPA 904.0	Radium-228	97.99 %REC 31.12RPD ± NA (NA) C:NA T:NA	pCi/L		05/08/23 15:24	
50342910001	**GAMW-56-042123**					
EPA 903.1	Radium-226	0.178 ± 0.495 (0.960) C:NA T:95%	pCi/L		05/12/23 13:59	
EPA 904.0	Radium-228	0.467 ± 0.386 (0.776) C:82% T:87%	pCi/L		05/05/23 15:31	
Total Radium Calculation	Total Radium	0.645 ± 0.881 (1.74)	pCi/L		05/12/23 15:46	
50342910002	**GAMW-56B-042123**					
EPA 903.1	Radium-226	0.000 ± 0.558 (1.18) C:NA T:94%	pCi/L		05/12/23 13:59	
EPA 904.0	Radium-228	-0.00489 ± 0.382 (0.886) C:75% T:81%	pCi/L		05/05/23 15:31	

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Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50342910002	**GAMW-56B-042123**					
Total Radium Calculation	Total Radium	0.000 ± 0.940 (2.07)	pCi/L		05/12/23 15:46	
50342911003	**GAMW-16BR-042123**					
EPA 903.1	Radium-226	1.61 ± 0.944 (1.20) C:NA T:88%	pCi/L		05/09/23 13:23	
EPA 904.0	Radium-228	0.583 ± 0.378 (0.714) C:75% T:95%	pCi/L		05/05/23 14:52	
Total Radium Calculation	Total Radium	2.19 ± 1.32 (1.91)	pCi/L		05/15/23 16:39	
50342911001	**GAMW-08-042123**					
EPA 903.1	Radium-226	0.156 ± 0.530 (1.02) C:NA T:84%	pCi/L		05/09/23 13:23	
EPA 904.0	Radium-228	0.294 ± 0.312 (0.644) C:73% T:94%	pCi/L		05/05/23 14:52	
Total Radium Calculation	Total Radium	0.450 ± 0.842 (1.66)	pCi/L		05/15/23 16:39	
50342911002	**GAMW-08B-042123**					
EPA 903.1	Radium-226	0.453 ± 0.584 (0.972) C:NA T:99%	pCi/L		05/09/23 13:23	
EPA 904.0	Radium-228	0.549 ± 0.390 (0.753) C:76% T:86%	pCi/L		05/05/23 14:52	
Total Radium Calculation	Total Radium	1.00 ± 0.974 (1.73)	pCi/L		05/15/23 16:39	
50343023001	**GAMW-53-042423**					
EPA 903.1	Radium-226	-0.216 ± 0.424 (1.02) C:NA T:95%	pCi/L		05/09/23 15:38	
EPA 904.0	Radium-228	0.461 ± 0.392 (0.789) C:82% T:82%	pCi/L		05/08/23 15:20	

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SUMMARY OF DETECTION

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Pace Project No.: 50341961

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343023001	**GAMW-53-042423**					
Total Radium Calculation	Total Radium	0.461 ± 0.816 (1.81)	pCi/L		05/15/23 17:00	
50343023002	**GAMW-53B-042423**					
EPA 903.1	Radium-226	0.652 ± 0.794 (1.31) C:NA T:97%	pCi/L		05/09/23 15:38	
EPA 904.0	Radium-228	1.09 ± 0.500 (0.852) C:81% T:79%	pCi/L		05/08/23 15:20	
Total Radium Calculation	Total Radium	1.74 ± 1.29 (2.16)	pCi/L		05/15/23 17:00	
50343169001	**GAMW-52-042523**					
EPA 903.1	Radium-226	0.0620 ± 0.471 (0.930) C:NA T:96%	pCi/L		05/16/23 14:16	
EPA 904.0	Radium-228	0.279 ± 0.422 (0.911) C:71% T:85%	pCi/L		05/10/23 15:34	
Total Radium Calculation	Total Radium	0.341 ± 0.893 (1.84)	pCi/L		05/18/23 12:42	
50343169002	**GAMW-52B-042523**					
EPA 903.1	Radium-226	0.559 ± 0.392 (0.516) C:NA T:94%	pCi/L		05/16/23 14:31	
EPA 904.0	Radium-228	0.997 ± 0.509 (0.899) C:71% T:82%	pCi/L		05/10/23 15:34	
Total Radium Calculation	Total Radium	1.56 ± 0.901 (1.42)	pCi/L		05/18/23 12:42	
50343169003	**GAMW-52B-042523 MS**					
EPA 903.1	Radium-226	95.59 %REC ± NA (NA) C:NA T:NA	pCi/L		05/16/23 14:31	
EPA 904.0	Radium-228	93.39 %REC ± NA (NA) C:NA T:NA	pCi/L		05/10/23 15:34	

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50343169004	**GAMW-52B-042523 MSD**					
EPA 903.1	Radium-226	115.83 %REC 19.16RPD± NA (NA) C:NA T:NA	pCi/L		05/16/23 14:31	
EPA 904.0	Radium-228	75.33 %REC 21.40RPD ± NA (NA) C:NA T:NA	pCi/L		05/10/23 15:34	
50343169005	**FD-03-042523**					
EPA 903.1	Radium-226	-0.163 ± 0.441 (0.949) C:NA T:101%	pCi/L		05/16/23 14:31	
EPA 904.0	Radium-228	0.164 ± 0.368 (0.815) C:78% T:87%	pCi/L		05/10/23 15:34	
Total Radium Calculation	Total Radium	0.164 ± 0.809 (1.76)	pCi/L		05/18/23 12:42	
50343609001	**GAMW-68-050123**					
EPA 903.1	Radium-226	0.146 ± 0.394 (0.732) C:NA T:92%	pCi/L		05/23/23 16:01	
EPA 904.0	Radium-228	0.501 ± 0.380 (0.755) C:85% T:92%	pCi/L		05/16/23 11:29	
Total Radium Calculation	Total Radium	0.647 ± 0.774 (1.49)	pCi/L		05/25/23 07:43	
50343609002	**GAMW-68B-050123**					
EPA 903.1	Radium-226	0.439 ± 0.376 (0.510) C:NA T:85%	pCi/L		05/23/23 16:01	
EPA 904.0	Radium-228	0.627 ± 0.388 (0.731) C:85% T:85%	pCi/L		05/16/23 11:26	
Total Radium Calculation	Total Radium	1.07 ± 0.764 (1.24)	pCi/L		05/25/23 07:43	

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50343609003	**FB-04-050123**					
EPA 903.1	Radium-226	0.375 ± 0.484 (0.805) C:NA T:89%	pCi/L		05/23/23 16:01	
EPA 904.0	Radium-228	0.374 ± 0.298 (0.587) C:85% T:89%	pCi/L		05/16/23 11:26	
Total Radium Calculation	Total Radium	0.749 ± 0.782 (1.39)	pCi/L		05/25/23 07:43	
50343609004	**FD-04-050123**					
EPA 903.1	Radium-226	0.358 ± 0.306 (0.415) C:NA T:90%	pCi/L		05/23/23 16:01	
EPA 904.0	Radium-228	0.776 ± 0.366 (0.606) C:82% T:90%	pCi/L		05/16/23 11:27	
Total Radium Calculation	Total Radium	1.13 ± 0.672 (1.02)	pCi/L		05/25/23 07:43	
50343265001	**GAMW-54-042623**					
EPA 903.1	Radium-226	0.0562 ± 0.454 (0.892) C:NA T:92%	pCi/L		05/18/23 12:24	
EPA 904.0	Radium-228	0.655 ± 0.300 (0.469) C:84% T:86%	pCi/L		05/11/23 12:59	
Total Radium Calculation	Total Radium	0.711 ± 0.754 (1.36)	pCi/L		05/19/23 15:30	
50343265002	**GAMW-54B-042623**					
EPA 903.1	Radium-226	0.415 ± 0.535 (0.890) C:NA T:88%	pCi/L		05/18/23 12:24	
EPA 904.0	Radium-228	1.03 ± 0.387 (0.552) C:82% T:85%	pCi/L		05/11/23 12:59	
Total Radium Calculation	Total Radium	1.45 ± 0.922 (1.44)	pCi/L		05/19/23 15:30	

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Project: RMSGS Assessment Apr23
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Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343265003	**GAMW-55R-042623**					
EPA 903.1	Radium-226	0.000 ± 0.502 (1.00) C:NA T:87%	pCi/L		05/18/23 12:24	
EPA 904.0	Radium-228	0.623 ± 0.332 (0.587) C:83% T:89%	pCi/L		05/11/23 12:59	
Total Radium Calculation	Total Radium	0.623 ± 0.834 (1.59)	pCi/L		05/19/23 15:30	
50343266001	**GAMW-55B-042623**					
EPA 903.1	Radium-226	1.23 ± 0.720 (0.827) C:NA T:75%	pCi/L		05/17/23 16:14	
EPA 904.0	Radium-228	0.975 ± 0.401 (0.591) C:78% T:79%	pCi/L		05/12/23 15:31	
Total Radium Calculation	Total Radium	2.21 ± 1.12 (1.42)	pCi/L		05/19/23 14:52	
50343266002	**FB-03-042623**					
EPA 903.1	Radium-226	0.307 ± 0.362 (0.569) C:NA T:95%	pCi/L		05/17/23 16:14	
EPA 904.0	Radium-228	0.137 ± 0.248 (0.543) C:81% T:86%	pCi/L		05/12/23 15:31	
Total Radium Calculation	Total Radium	0.444 ± 0.610 (1.11)	pCi/L		05/19/23 14:52	

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: NiSource_WSP Golder
Date: June 19, 2023

General Information:
52 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 581968

1d: Matrix spike recovery fails low and outside of default acceptance criteria for MS recovery. Results reported based on acceptable RPD for the RQS set.

- GAMW-01B-041323 MS (Lab ID: 50342143003)
  - Radium-226

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: NiSource_WSP Golder
Date: June 19, 2023

General Information:
52 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: NiSource_WSP Golder
Date: June 19, 2023

General Information:
46 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-14-041223 **Lab ID: 50341961001** Collected: 04/12/23 13:40 Received: 04/13/23 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.219 ± 0.380 (0.957) C:NA T:97%**	pCi/L	04/27/23 15:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.135 ± 0.408 (0.914) C:72% T:87%**	pCi/L	04/25/23 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.135 ± 0.788 (1.87)**	pCi/L	04/27/23 17:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-14B-041223 **Lab ID: 50341961002** Collected: 04/12/23 13:25 Received: 04/13/23 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.25 ± 0.685 (0.790) C:NA T:91%**	pCi/L	04/27/23 15:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.52 ± 0.582 (0.917) C:73% T:86%**	pCi/L	04/25/23 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.77 ± 1.27 (1.71)**	pCi/L	04/27/23 17:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-01-041323 **Lab ID: 50342143001** Collected: 04/13/23 11:35 Received: 04/14/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.400 ± 0.369 (0.538) C:NA T:83%**	pCi/L	05/04/23 15:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.218 ± 0.368 (0.802) C:80% T:83%**	pCi/L	04/26/23 14:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.618 ± 0.737 (1.34)**	pCi/L	05/05/23 10:30	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-01B-041323 **Lab ID: 50342143002** Collected: 04/13/23 12:50 Received: 04/14/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.08 ± 0.530 (0.609) C:NA T:87%**	pCi/L	05/04/23 15:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.11 ± 0.429 (0.643) C:83% T:87%**	pCi/L	04/26/23 14:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.19 ± 0.959 (1.25)**	pCi/L	05/05/23 10:30	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-01B-041323 MS **Lab ID: 50342143003** Collected: 04/13/23 12:50 Received: 04/14/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**67.24 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/04/23 15:54	13982-63-3	1d
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**66.09 %REC ± NA (NA) C:NA T:NA**	pCi/L	04/26/23 14:58	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-01B-041323 MSD **Lab ID: 50342143004** Collected: 04/13/23 12:50 Received: 04/14/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**78.17 %REC 15.03RPD ± NA (NA) C:NA T:NA**	pCi/L	05/04/23 16:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**65.17 %REC 1.39RPD ± NA (NA) C:NA T:NA**	pCi/L	04/26/23 14:58	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-03-041423 **Lab ID: 50342291001** Collected: 04/14/23 13:05 Received: 04/17/23 08:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.122 ± 0.379 (0.734) C:NA T:85%**	pCi/L	05/01/23 16:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.443 ± 0.399 (0.808) C:77% T:83%**	pCi/L	04/27/23 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.565 ± 0.778 (1.54)**	pCi/L	05/03/23 12:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-03B-041423 **Lab ID: 50342291002** Collected: 04/14/23 14:30 Received: 04/17/23 08:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.175 ± 0.442 (0.821) C:NA T:87%**	pCi/L	05/01/23 16:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.227 ± 0.351 (0.758) C:78% T:85%**	pCi/L	04/27/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.402 ± 0.793 (1.58)**	pCi/L	05/03/23 12:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-12-041423 **Lab ID: 50342291003** Collected: 04/14/23 12:00 Received: 04/17/23 08:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.761 ± 0.796 (1.25) C:NA T:88%**	pCi/L	05/05/23 12:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.380 ± 0.365 (0.745) C:80% T:84%**	pCi/L	04/27/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.14 ± 1.16 (2.00)**	pCi/L	05/05/23 15:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-12B-041423 **Lab ID: 50342291004** Collected: 04/14/23 14:30 Received: 04/17/23 08:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.266 ± 0.452 (0.798) C:NA T:94%**	pCi/L	05/01/23 16:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.528 ± 0.407 (0.789) C:74% T:81%**	pCi/L	04/27/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.794 ± 0.859 (1.59)**	pCi/L	05/03/23 12:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-13-041423 **Lab ID: 50342291005** Collected: 04/14/23 09:45 Received: 04/17/23 08:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.203 ± 0.479 (0.887) C:NA T:84%**	pCi/L	05/01/23 16:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.286 ± 0.375 (0.799) C:76% T:83%**	pCi/L	04/27/23 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.489 ± 0.854 (1.69)**	pCi/L	05/03/23 12:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-13B-041423 **Lab ID: 50342291006** Collected: 04/14/23 11:50 Received: 04/17/23 08:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.194 ± 0.492 (0.913) C:NA T:89%**	pCi/L	05/01/23 16:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.448 ± 0.374 (0.743) C:77% T:85%**	pCi/L	04/27/23 15:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.642 ± 0.866 (1.66)**	pCi/L	05/03/23 12:51	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-51-041523 **Lab ID: 50342385001** Collected: 04/15/23 15:45 Received: 04/18/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.289 ± 0.469 (0.816) C:NA T:94%**	pCi/L	05/03/23 14:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.442 ± 0.401 (0.814) C:76% T:83%**	pCi/L	05/01/23 15:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.731 ± 0.870 (1.63)**	pCi/L	05/05/23 10:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-51B-041523 **Lab ID: 50342385002** Collected: 04/15/23 16:50 Received: 04/18/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.53 ± 0.698 (0.709) C:NA T:90%**	pCi/L	05/03/23 14:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.42 ± 0.496 (0.656) C:79% T:82%**	pCi/L	05/01/23 15:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.95 ± 1.19 (1.37)**	pCi/L	05/05/23 10:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-59-041523 **Lab ID: 50342385003** Collected: 04/15/23 18:10 Received: 04/18/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0547 ± 0.355 (0.771) C:NA T:98%**	pCi/L	05/03/23 14:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.609 ± 0.371 (0.680) C:81% T:86%**	pCi/L	05/01/23 15:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.609 ± 0.726 (1.45)**	pCi/L	05/05/23 10:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-59B-041523 **Lab ID: 50342385004** Collected: 04/15/23 19:05 Received: 04/18/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.545 ± 0.588 (0.949) C:NA T:94%**	pCi/L	05/03/23 14:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.25 ± 0.497 (0.767) C:80% T:82%**	pCi/L	05/01/23 15:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.80 ± 1.09 (1.72)**	pCi/L	05/05/23 10:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-09-041923 **Lab ID: 50342609001** Collected: 04/19/23 10:20 Received: 04/20/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.724 ± 0.568 (0.790) C:NA T:93%**	pCi/L	05/11/23 13:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.350 ± 0.419 (0.885) C:78% T:76%**	pCi/L	05/04/23 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.07 ± 0.987 (1.68)**	pCi/L	05/12/23 15:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-09B-041923 **Lab ID: 50342609002** Collected: 04/19/23 12:05 Received: 04/20/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.363 ± 0.338 (0.445) C:NA T:94%**	pCi/L	05/11/23 13:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.655 ± 0.453 (0.888) C:79% T:86%**	pCi/L	05/04/23 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.02 ± 0.791 (1.33)**	pCi/L	05/12/23 15:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-17-041923 **Lab ID: 50342609003** Collected: 04/19/23 13:40 Received: 04/20/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.207 ± 0.316 (0.508) C:NA T:88%**	pCi/L	05/11/23 13:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.380 ± 0.395 (0.823) C:76% T:90%**	pCi/L	05/04/23 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.587 ± 0.711 (1.33)**	pCi/L	05/12/23 15:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-18-041923 **Lab ID: 50342609004** Collected: 04/19/23 13:40 Received: 04/20/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.261 ± 0.363 (0.607) C:NA T:88%**	pCi/L	05/11/23 13:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.543 ± 0.412 (0.815) C:76% T:86%**	pCi/L	05/04/23 15:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.804 ± 0.775 (1.42)**	pCi/L	05/12/23 15:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: FD-01-041923 **Lab ID: 50342609005** Collected: 04/19/23 12:00 Received: 04/20/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.203 ± 0.352 (0.629) C:NA T:91%**	pCi/L	05/11/23 13:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.21 ± 0.726 (1.35) C:78% T:73%**	pCi/L	05/04/23 18:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.41 ± 1.08 (1.98)**	pCi/L	05/12/23 15:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: FB-01-041923 **Lab ID: 50342609006** Collected: 04/19/23 13:45 Received: 04/20/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0668 ± 0.507 (1.00) C:NA T:97%**	pCi/L	05/11/23 13:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.12 ± 0.577 (1.02) C:81% T:88%**	pCi/L	05/04/23 18:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.19 ± 1.08 (2.02)**	pCi/L	05/12/23 15:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-17B-042023 **Lab ID: 50342779001** Collected: 04/20/23 10:25 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.563 ± 0.521 (0.758) C:NA T:85%**	pCi/L	05/12/23 13:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.849 ± 0.482 (0.903) C:77% T:87%**	pCi/L	05/08/23 12:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.41 ± 1.00 (1.66)**	pCi/L	05/12/23 18:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-18B-042023 **Lab ID: 50342779002** Collected: 04/20/23 10:05 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.12 ± 0.666 (0.634) C:NA T:87%**	pCi/L	05/12/23 13:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.19 ± 0.460 (0.724) C:79% T:93%**	pCi/L	05/08/23 12:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.31 ± 1.13 (1.36)**	pCi/L	05/12/23 18:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-60-042023 **Lab ID: 50342779003** Collected: 04/20/23 11:15 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.510 ± 0.709 (1.20) C:NA T:85%**	pCi/L	05/12/23 13:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.959 ± 0.446 (0.765) C:79% T:87%**	pCi/L	05/08/23 12:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.47 ± 1.16 (1.97)**	pCi/L	05/12/23 18:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-60B-042023 **Lab ID: 50342779004** Collected: 04/20/23 12:25 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.57 ± 0.852 (0.860) C:NA T:79%**	pCi/L	05/12/23 13:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.09 ± 0.641 (0.835) C:75% T:86%**	pCi/L	05/08/23 12:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**3.66 ± 1.49 (1.70)**	pCi/L	05/12/23 18:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-16R-042023 **Lab ID: 50342779005** Collected: 04/20/23 13:55 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.176 ± 0.488 (0.947) C:NA T:88%**	pCi/L	05/12/23 13:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.752 ± 0.417 (0.766) C:75% T:92%**	pCi/L	05/08/23 12:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.928 ± 0.905 (1.71)**	pCi/L	05/12/23 18:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: FD-02-042023 **Lab ID: 50342779006** Collected: 04/20/23 12:00 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.416 ± 0.492 (0.773) C:NA T:93%**	pCi/L	05/12/23 13:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.564 ± 0.397 (0.773) C:74% T:88%**	pCi/L	05/08/23 12:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.980 ± 0.889 (1.55)**	pCi/L	05/12/23 18:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: FB-02-042023 **Lab ID: 50342779007** Collected: 04/20/23 12:30 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.152 ± 0.596 (1.14) C:NA T:94%**	pCi/L	05/12/23 13:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.884 ± 0.496 (0.913) C:71% T:79%**	pCi/L	05/08/23 12:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.04 ± 1.09 (2.05)**	pCi/L	05/12/23 18:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-17B-042023 MS **Lab ID: 50342779008** Collected: 04/20/23 10:25 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**92.65 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/12/23 13:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**71.60 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/08/23 15:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-17B-042023 MSD **Lab ID: 50342779009** Collected: 04/20/23 10:25 Received: 04/21/23 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**104.42 %REC 11.95RPD ± NA (NA) C:NA T:NA**	pCi/L	05/12/23 13:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**97.99 %REC 31.12RPD ± NA (NA) C:NA T:NA**	pCi/L	05/08/23 15:24	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-56-042123 **Lab ID: 50342910001** Collected: 04/21/23 10:55 Received: 04/22/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.178 ± 0.495 (0.960) C:NA T:95%**	pCi/L	05/12/23 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.467 ± 0.386 (0.776) C:82% T:87%**	pCi/L	05/05/23 15:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.645 ± 0.881 (1.74)**	pCi/L	05/12/23 15:46	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-56B-042123 **Lab ID: 50342910002** Collected: 04/21/23 13:30 Received: 04/22/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.558 (1.18) C:NA T:94%**	pCi/L	05/12/23 13:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.00489 ± 0.382 (0.886) C:75% T:81%**	pCi/L	05/05/23 15:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.000 ± 0.940 (2.07)**	pCi/L	05/12/23 15:46	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-16BR-042123 **Lab ID: 50342911003** Collected: 04/21/23 09:40 Received: 04/22/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.61 ± 0.944 (1.20) C:NA T:88%**	pCi/L	05/09/23 13:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.583 ± 0.378 (0.714) C:75% T:95%**	pCi/L	05/05/23 14:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.19 ± 1.32 (1.91)**	pCi/L	05/15/23 16:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-08-042123 **Lab ID: 50342911001** Collected: 04/21/23 09:55 Received: 04/22/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.156 ± 0.530 (1.02) C:NA T:84%**	pCi/L	05/09/23 13:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.294 ± 0.312 (0.644) C:73% T:94%**	pCi/L	05/05/23 14:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.450 ± 0.842 (1.66)**	pCi/L	05/15/23 16:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-08B-042123 **Lab ID: 50342911002** Collected: 04/21/23 10:50 Received: 04/22/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.453 ± 0.584 (0.972) C:NA T:99%**	pCi/L	05/09/23 13:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.549 ± 0.390 (0.753) C:76% T:86%**	pCi/L	05/05/23 14:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.00 ± 0.974 (1.73)**	pCi/L	05/15/23 16:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-53-042423 **Lab ID: 50343023001** Collected: 04/24/23 11:05 Received: 04/25/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.216 ± 0.424 (1.02) C:NA T:95%**	pCi/L	05/09/23 15:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.461 ± 0.392 (0.789) C:82% T:82%**	pCi/L	05/08/23 15:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.461 ± 0.816 (1.81)**	pCi/L	05/15/23 17:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-53B-042423 **Lab ID: 50343023002** Collected: 04/24/23 12:50 Received: 04/25/23 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.652 ± 0.794 (1.31) C:NA T:97%**	pCi/L	05/09/23 15:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.09 ± 0.500 (0.852) C:81% T:79%**	pCi/L	05/08/23 15:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.74 ± 1.29 (2.16)**	pCi/L	05/15/23 17:00	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-52-042523 **Lab ID: 50343169001** Collected: 04/25/23 09:25 Received: 04/26/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0620 ± 0.471 (0.930) C:NA T:96%**	pCi/L	05/16/23 14:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.279 ± 0.422 (0.911) C:71% T:85%**	pCi/L	05/10/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.341 ± 0.893 (1.84)**	pCi/L	05/18/23 12:42	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-52B-042523 **Lab ID: 50343169002** Collected: 04/25/23 11:10 Received: 04/26/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.559 ± 0.392 (0.516) C:NA T:94%**	pCi/L	05/16/23 14:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.997 ± 0.509 (0.899) C:71% T:82%**	pCi/L	05/10/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.56 ± 0.901 (1.42)**	pCi/L	05/18/23 12:42	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-52B-042523 MS **Lab ID: 50343169003** Collected: 04/25/23 11:10 Received: 04/26/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**95.59 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/16/23 14:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**93.39 %REC ± NA (NA) C:NA T:NA**	pCi/L	05/10/23 15:34	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-52B-042523 MSD **Lab ID: 50343169004** Collected: 04/25/23 11:10 Received: 04/26/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**115.83 %REC 19.16RPD± NA (NA) C:NA T:NA**	pCi/L	05/16/23 14:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**75.33 %REC 21.40RPD ± NA (NA) C:NA T:NA**	pCi/L	05/10/23 15:34	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: FD-03-042523 **Lab ID: 50343169005** Collected: 04/25/23 12:00 Received: 04/26/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.163 ± 0.441 (0.949) C:NA T:101%**	pCi/L	05/16/23 14:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.164 ± 0.368 (0.815) C:78% T:87%**	pCi/L	05/10/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.164 ± 0.809 (1.76)**	pCi/L	05/18/23 12:42	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-68-050123 **Lab ID: 50343609001** Collected: 05/01/23 12:25 Received: 05/02/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.146 ± 0.394 (0.732) C:NA T:92%**	pCi/L	05/23/23 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.501 ± 0.380 (0.755) C:85% T:92%**	pCi/L	05/16/23 11:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.647 ± 0.774 (1.49)**	pCi/L	05/25/23 07:43	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-68B-050123 **Lab ID: 50343609002** Collected: 05/01/23 14:40 Received: 05/02/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.439 ± 0.376 (0.510) C:NA T:85%**	pCi/L	05/23/23 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.627 ± 0.388 (0.731) C:85% T:85%**	pCi/L	05/16/23 11:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.07 ± 0.764 (1.24)**	pCi/L	05/25/23 07:43	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: FB-04-050123 **Lab ID: 50343609003** Collected: 05/01/23 14:45 Received: 05/02/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.375 ± 0.484 (0.805) C:NA T:89%**	pCi/L	05/23/23 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.374 ± 0.298 (0.587) C:85% T:89%**	pCi/L	05/16/23 11:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.749 ± 0.782 (1.39)**	pCi/L	05/25/23 07:43	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: FD-04-050123 **Lab ID: 50343609004** Collected: 05/01/23 12:00 Received: 05/02/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.358 ± 0.306 (0.415) C:NA T:90%**	pCi/L	05/23/23 16:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.776 ± 0.366 (0.606) C:82% T:90%**	pCi/L	05/16/23 11:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.13 ± 0.672 (1.02)**	pCi/L	05/25/23 07:43	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-54-042623 **Lab ID: 50343265001** Collected: 04/26/23 10:05 Received: 04/27/23 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0562 ± 0.454 (0.892) C:NA T:92%**	pCi/L	05/18/23 12:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.655 ± 0.300 (0.469) C:84% T:86%**	pCi/L	05/11/23 12:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.711 ± 0.754 (1.36)**	pCi/L	05/19/23 15:30	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-54B-042623 **Lab ID: 50343265002** Collected: 04/26/23 11:20 Received: 04/27/23 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.415 ± 0.535 (0.890) C:NA T:88%**	pCi/L	05/18/23 12:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.03 ± 0.387 (0.552) C:82% T:85%**	pCi/L	05/11/23 12:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.45 ± 0.922 (1.44)**	pCi/L	05/19/23 15:30	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-55R-042623 **Lab ID: 50343265003** Collected: 04/26/23 12:35 Received: 04/27/23 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.502 (1.00) C:NA T:87%**	pCi/L	05/18/23 12:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.623 ± 0.332 (0.587) C:83% T:89%**	pCi/L	05/11/23 12:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.623 ± 0.834 (1.59)**	pCi/L	05/19/23 15:30	7440-14-4	

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Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: GAMW-55B-042623 **Lab ID: 50343266001** Collected: 04/26/23 13:55 Received: 04/27/23 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.23 ± 0.720 (0.827) C:NA T:75%**	pCi/L	05/17/23 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.975 ± 0.401 (0.591) C:78% T:79%**	pCi/L	05/12/23 15:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.21 ± 1.12 (1.42)**	pCi/L	05/19/23 14:52	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Sample: FB-03-042623 **Lab ID: 50343266002** Collected: 04/26/23 11:30 Received: 04/27/23 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.307 ± 0.362 (0.569) C:NA T:95%**	pCi/L	05/17/23 16:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.137 ± 0.248 (0.543) C:81% T:86%**	pCi/L	05/12/23 15:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.444 ± 0.610 (1.11)**	pCi/L	05/19/23 14:52	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585904
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343609001, 50343609002, 50343609003, 50343609004

METHOD BLANK: 2845862 Matrix: Water
Associated Lab Samples: 50343609001, 50343609002, 50343609003, 50343609004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.914 ± 0.407 (0.635) C:83% T:72%	pCi/L	05/16/23 11:17	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 582468
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342385001, 50342385002, 50342385003, 50342385004

METHOD BLANK: 2828839 Matrix: Water
Associated Lab Samples: 50342385001, 50342385002, 50342385003, 50342385004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.264 ± 0.245 (0.323) C:NA T:97%	pCi/L	05/03/23 13:51	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 581398
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50341961001, 50341961002

METHOD BLANK: 2823677
Matrix: Water
Associated Lab Samples: 50341961001, 50341961002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.700 ± 0.413 (0.739) C:68% T:82%	pCi/L	04/25/23 15:08	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 581396
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50341961001, 50341961002

METHOD BLANK: 2823675
Matrix: Water
Associated Lab Samples: 50341961001, 50341961002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0451 ± 0.206 (0.122) C:NA T:103%	pCi/L	04/27/23 15:00	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585492
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343266001, 50343266002

METHOD BLANK: 2843596
Matrix: Water
Associated Lab Samples: 50343266001, 50343266002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.522 ± 0.338 (0.632) C:83% T:79%	pCi/L	05/12/23 12:25	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585057 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343169001, 50343169002, 50343169003, 50343169004, 50343169005

METHOD BLANK: 2841341 Matrix: Water
Associated Lab Samples: 50343169001, 50343169002, 50343169003, 50343169004, 50343169005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0927 ± 0.223 (0.430) C:NA T:90%	pCi/L	05/16/23 14:16	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 583716 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342779001, 50342779002, 50342779003, 50342779004, 50342779005, 50342779006, 50342779007, 50342779008, 50342779009

METHOD BLANK: 2834710 Matrix: Water
Associated Lab Samples: 50342779001, 50342779002, 50342779003, 50342779004, 50342779005, 50342779006, 50342779007, 50342779008, 50342779009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.500 ± 0.392 (0.460) C:NA T:93%	pCi/L	05/12/23 13:04	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585733
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343265001, 50343265002, 50343265003

METHOD BLANK: 2845067
Matrix: Water
Associated Lab Samples: 50343265001, 50343265002, 50343265003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.401 ± 0.294 (0.568) C:78% T:90%	pCi/L	05/11/23 12:58	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585052
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343023001, 50343023002

METHOD BLANK: 2841322
Matrix: Water
Associated Lab Samples: 50343023001, 50343023002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.218 ± 0.250 (0.148) C:NA T:93%	pCi/L	05/09/23 15:38	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 581970
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342143001, 50342143002, 50342143003, 50342143004

METHOD BLANK: 2826543 Matrix: Water
Associated Lab Samples: 50342143001, 50342143002, 50342143003, 50342143004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.480 ± 0.326 (0.605) C:76% T:83%	pCi/L	04/26/23 14:49	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 581968
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342143001, 50342143002, 50342143003, 50342143004

METHOD BLANK: 2826534 Matrix: Water
Associated Lab Samples: 50342143001, 50342143002, 50342143003, 50342143004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.211 (0.428) C:NA T:83%	pCi/L	05/04/23 15:42	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585053
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343023001, 50343023002

METHOD BLANK: 2841323
Matrix: Water
Associated Lab Samples: 50343023001, 50343023002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.571 ± 0.354 (0.657) C:83% T:88%	pCi/L	05/08/23 15:21	

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(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 584735
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342911001, 50342911002, 50342911003

METHOD BLANK: 2839648 Matrix: Water
Associated Lab Samples: 50342911001, 50342911002, 50342911003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0773 ± 0.284 (0.645) C:73% T:97%	pCi/L	05/05/23 14:48	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 583717 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342779001, 50342779002, 50342779003, 50342779004, 50342779005, 50342779006, 50342779007, 50342779008, 50342779009

METHOD BLANK: 2834711 Matrix: Water
Associated Lab Samples: 50342779001, 50342779002, 50342779003, 50342779004, 50342779005, 50342779006, 50342779007, 50342779008, 50342779009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.284 ± 0.346 (0.733) C:75% T:91%	pCi/L	05/08/23 12:00	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 581976
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342291001, 50342291002, 50342291003, 50342291004, 50342291005, 50342291006

METHOD BLANK: 2826556 Matrix: Water
Associated Lab Samples: 50342291001, 50342291002, 50342291003, 50342291004, 50342291005, 50342291006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.147 ± 0.311 (0.689) C:74% T:87%	pCi/L	04/27/23 15:58	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 581975
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342291001, 50342291002, 50342291003, 50342291004, 50342291005, 50342291006

METHOD BLANK: 2826555 Matrix: Water
Associated Lab Samples: 50342291001, 50342291002, 50342291003, 50342291004, 50342291005, 50342291006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.534 ± 0.322 (0.132) C:NA T:92%	pCi/L	05/01/23 15:48	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585902
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343609001, 50343609002, 50343609003, 50343609004

METHOD BLANK: 2845856 Matrix: Water
Associated Lab Samples: 50343609001, 50343609002, 50343609003, 50343609004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.175 ± 0.267 (0.429) C:NA T:72%	pCi/L	05/23/23 15:45	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585490
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343266001, 50343266002

METHOD BLANK: 2843591
Matrix: Water
Associated Lab Samples: 50343266001, 50343266002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0521 ± 0.238 (0.484) C:NA T:93%	pCi/L	05/17/23 15:39	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585067 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343169001, 50343169002, 50343169003, 50343169004, 50343169005

METHOD BLANK: 2841383 Matrix: Water
Associated Lab Samples: 50343169001, 50343169002, 50343169003, 50343169004, 50343169005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.410 ± 0.355 (0.711) C:78% T:80%	pCi/L	05/10/23 15:35	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 583718
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342910001, 50342910002

METHOD BLANK: 2834715 Matrix: Water
Associated Lab Samples: 50342910001, 50342910002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.298 ± 0.274 (0.161) C:NA T:98%	pCi/L	05/12/23 13:47	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 583215
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342609001, 50342609002, 50342609003, 50342609004, 50342609005, 50342609006

METHOD BLANK: 2832312 Matrix: Water
Associated Lab Samples: 50342609001, 50342609002, 50342609003, 50342609004, 50342609005, 50342609006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.187 ± 0.260 (0.434) C:NA T:96%	pCi/L	05/11/23 13:16	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 585731
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343265001, 50343265002, 50343265003

METHOD BLANK: 2845061 Matrix: Water
Associated Lab Samples: 50343265001, 50343265002, 50343265003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.152 ± 0.263 (0.469) C:NA T:86%	pCi/L	05/18/23 12:24	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 584734
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342911001, 50342911002, 50342911003

METHOD BLANK: 2839644 Matrix: Water
Associated Lab Samples: 50342911001, 50342911002, 50342911003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.156 ± 0.306 (0.560) C:NA T:103%	pCi/L	05/09/23 12:53	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 583719
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342910001, 50342910002

METHOD BLANK: 2834717
Matrix: Water
Associated Lab Samples: 50342910001, 50342910002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.484 ± 0.333 (0.642) C:86% T:87%	pCi/L	05/05/23 12:20	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 583216 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342609001, 50342609002, 50342609003, 50342609004, 50342609005, 50342609006

METHOD BLANK: 2832314 Matrix: Water
Associated Lab Samples: 50342609001, 50342609002, 50342609003, 50342609004, 50342609005, 50342609006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.209 ± 0.350 (0.761) C:70% T:91%	pCi/L	05/04/23 11:50	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

QC Batch: 582471 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50342385001, 50342385002, 50342385003, 50342385004

METHOD BLANK: 2828843 Matrix: Water
Associated Lab Samples: 50342385001, 50342385002, 50342385003, 50342385004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.257 ± 0.289 (0.602) C:85% T:89%	pCi/L	05/01/23 15:03	

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QUALIFIERS

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	Matrix spike recovery fails low and outside of default acceptance criteria for MS recovery. Results reported based on acceptable RPD for the RQS set.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50341961001	**GAMW-14-041223**	EPA 903.1	581396		
50341961002	**GAMW-14B-041223**	EPA 903.1	581396		
50342143001	**GAMW-01-041323**	EPA 903.1	581968		
50342143002	**GAMW-01B-041323**	EPA 903.1	581968		
50342143003	**GAMW-01B-041323 MS**	EPA 903.1	581968		
50342143004	**GAMW-01B-041323 MSD**	EPA 903.1	581968		
50342291001	**GAMW-03-041423**	EPA 903.1	581975		
50342291002	**GAMW-03B-041423**	EPA 903.1	581975		
50342291003	**GAMW-12-041423**	EPA 903.1	581975		
50342291004	**GAMW-12B-041423**	EPA 903.1	581975		
50342291005	**GAMW-13-041423**	EPA 903.1	581975		
50342291006	**GAMW-13B-041423**	EPA 903.1	581975		
50342385001	**GAMW-51-041523**	EPA 903.1	582468		
50342385002	**GAMW-51B-041523**	EPA 903.1	582468		
50342385003	**GAMW-59-041523**	EPA 903.1	582468		
50342385004	**GAMW-59B-041523**	EPA 903.1	582468		
50342609001	**GAMW-09-041923**	EPA 903.1	583215		
50342609002	**GAMW-09B-041923**	EPA 903.1	583215		
50342609003	**GAMW-17-041923**	EPA 903.1	583215		
50342609004	**GAMW-18-041923**	EPA 903.1	583215		
50342609005	**FD-01-041923**	EPA 903.1	583215		
50342609006	**FB-01-041923**	EPA 903.1	583215		
50342779001	**GAMW-17B-042023**	EPA 903.1	583716		
50342779002	**GAMW-18B-042023**	EPA 903.1	583716		
50342779003	**GAMW-60-042023**	EPA 903.1	583716		
50342779004	**GAMW-60B-042023**	EPA 903.1	583716		
50342779005	**GAMW-16R-042023**	EPA 903.1	583716		
50342779006	**FD-02-042023**	EPA 903.1	583716		
50342779007	**FB-02-042023**	EPA 903.1	583716		
50342779008	**GAMW-17B-042023 MS**	EPA 903.1	583716		
50342779009	**GAMW-17B-042023 MSD**	EPA 903.1	583716		
50342910001	**GAMW-56-042123**	EPA 903.1	583718		
50342910002	**GAMW-56B-042123**	EPA 903.1	583718		
50342911001	**GAMW-08-042123**	EPA 903.1	584734		
50342911002	**GAMW-08B-042123**	EPA 903.1	584734		
50342911003	**GAMW-16BR-042123**	EPA 903.1	584734		
50343023001	**GAMW-53-042423**	EPA 903.1	585052		
50343023002	**GAMW-53B-042423**	EPA 903.1	585052		
50343169001	**GAMW-52-042523**	EPA 903.1	585057		
50343169002	**GAMW-52B-042523**	EPA 903.1	585057		
50343169003	**GAMW-52B-042523 MS**	EPA 903.1	585057		
50343169004	**GAMW-52B-042523 MSD**	EPA 903.1	585057		
50343169005	**FD-03-042523**	EPA 903.1	585057		
50343265001	**GAMW-54-042623**	EPA 903.1	585731		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343265002	**GAMW-54B-042623**	EPA 903.1	585731		
50343265003	**GAMW-55R-042623**	EPA 903.1	585731		
50343266001	**GAMW-55B-042623**	EPA 903.1	585490		
50343266002	**FB-03-042623**	EPA 903.1	585490		
50343609001	**GAMW-68-050123**	EPA 903.1	585902		
50343609002	**GAMW-68B-050123**	EPA 903.1	585902		
50343609003	**FB-04-050123**	EPA 903.1	585902		
50343609004	**FD-04-050123**	EPA 903.1	585902		
50341961001	**GAMW-14-041223**	EPA 904.0	581398		
50341961002	**GAMW-14B-041223**	EPA 904.0	581398		
50342143001	**GAMW-01-041323**	EPA 904.0	581970		
50342143002	**GAMW-01B-041323**	EPA 904.0	581970		
50342143003	**GAMW-01B-041323 MS**	EPA 904.0	581970		
50342143004	**GAMW-01B-041323 MSD**	EPA 904.0	581970		
50342291001	**GAMW-03-041423**	EPA 904.0	581976		
50342291002	**GAMW-03B-041423**	EPA 904.0	581976		
50342291003	**GAMW-12-041423**	EPA 904.0	581976		
50342291004	**GAMW-12B-041423**	EPA 904.0	581976		
50342291005	**GAMW-13-041423**	EPA 904.0	581976		
50342291006	**GAMW-13B-041423**	EPA 904.0	581976		
50342385001	**GAMW-51-041523**	EPA 904.0	582471		
50342385002	**GAMW-51B-041523**	EPA 904.0	582471		
50342385003	**GAMW-59-041523**	EPA 904.0	582471		
50342385004	**GAMW-59B-041523**	EPA 904.0	582471		
50342609001	**GAMW-09-041923**	EPA 904.0	583216		
50342609002	**GAMW-09B-041923**	EPA 904.0	583216		
50342609003	**GAMW-17-041923**	EPA 904.0	583216		
50342609004	**GAMW-18-041923**	EPA 904.0	583216		
50342609005	**FD-01-041923**	EPA 904.0	583216		
50342609006	**FB-01-041923**	EPA 904.0	583216		
50342779001	**GAMW-17B-042023**	EPA 904.0	583717		
50342779002	**GAMW-18B-042023**	EPA 904.0	583717		
50342779003	**GAMW-60-042023**	EPA 904.0	583717		
50342779004	**GAMW-60B-042023**	EPA 904.0	583717		
50342779005	**GAMW-16R-042023**	EPA 904.0	583717		
50342779006	**FD-02-042023**	EPA 904.0	583717		
50342779007	**FB-02-042023**	EPA 904.0	583717		
50342779008	**GAMW-17B-042023 MS**	EPA 904.0	583717		
50342779009	**GAMW-17B-042023 MSD**	EPA 904.0	583717		
50342910001	**GAMW-56-042123**	EPA 904.0	583719		
50342910002	**GAMW-56B-042123**	EPA 904.0	583719		
50342911001	**GAMW-08-042123**	EPA 904.0	584735		
50342911002	**GAMW-08B-042123**	EPA 904.0	584735		
50342911003	**GAMW-16BR-042123**	EPA 904.0	584735		

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343023001	GAMW-53-042423	EPA 904.0	585053		
50343023002	GAMW-53B-042423	EPA 904.0	585053		
50343169001	GAMW-52-042523	EPA 904.0	585067		
50343169002	GAMW-52B-042523	EPA 904.0	585067		
50343169003	GAMW-52B-042523 MS	EPA 904.0	585067		
50343169004	GAMW-52B-042523 MSD	EPA 904.0	585067		
50343169005	FD-03-042523	EPA 904.0	585067		
50343265001	GAMW-54-042623	EPA 904.0	585733		
50343265002	GAMW-54B-042623	EPA 904.0	585733		
50343265003	GAMW-55R-042623	EPA 904.0	585733		
50343266001	GAMW-55B-042623	EPA 904.0	585492		
50343266002	FB-03-042623	EPA 904.0	585492		
50343609001	GAMW-68-050123	EPA 904.0	585904		
50343609002	GAMW-68B-050123	EPA 904.0	585904		
50343609003	FB-04-050123	EPA 904.0	585904		
50343609004	FD-04-050123	EPA 904.0	585904		
50341961001	GAMW-14-041223	Total Radium Calculation	584259		
50341961002	GAMW-14B-041223	Total Radium Calculation	584259		
50342143001	GAMW-01-041323	Total Radium Calculation	586079		
50342143002	GAMW-01B-041323	Total Radium Calculation	586079		
50342291001	GAMW-03-041423	Total Radium Calculation	585477		
50342291002	GAMW-03B-041423	Total Radium Calculation	585477		
50342291003	GAMW-12-041423	Total Radium Calculation	586223		
50342291004	GAMW-12B-041423	Total Radium Calculation	585477		
50342291005	GAMW-13-041423	Total Radium Calculation	585477		
50342291006	GAMW-13B-041423	Total Radium Calculation	585477		
50342385001	GAMW-51-041523	Total Radium Calculation	586082		
50342385002	GAMW-51B-041523	Total Radium Calculation	586082		
50342385003	GAMW-59-041523	Total Radium Calculation	586082		
50342385004	GAMW-59B-041523	Total Radium Calculation	586082		
50342609001	GAMW-09-041923	Total Radium Calculation	587898		
50342609002	GAMW-09B-041923	Total Radium Calculation	587898		
50342609003	GAMW-17-041923	Total Radium Calculation	587898		
50342609004	GAMW-18-041923	Total Radium Calculation	587898		
50342609005	FD-01-041923	Total Radium Calculation	587898		
50342609006	FB-01-041923	Total Radium Calculation	587898		
50342779001	GAMW-17B-042023	Total Radium Calculation	587931		
50342779002	GAMW-18B-042023	Total Radium Calculation	587931		
50342779003	GAMW-60-042023	Total Radium Calculation	587931		
50342779004	GAMW-60B-042023	Total Radium Calculation	587931		
50342779005	GAMW-16R-042023	Total Radium Calculation	587931		
50342779006	FD-02-042023	Total Radium Calculation	587931		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50341961

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50342779007	**FB-02-042023**	Total Radium Calculation	587931		
50342910001	**GAMW-56-042123**	Total Radium Calculation	587901		
50342910002	**GAMW-56B-042123**	Total Radium Calculation	587901		
50342911001	**GAMW-08-042123**	Total Radium Calculation	588247		
50342911002	**GAMW-08B-042123**	Total Radium Calculation	588247		
50342911003	**GAMW-16BR-042123**	Total Radium Calculation	588247		
50343023001	**GAMW-53-042423**	Total Radium Calculation	588253		
50343023002	**GAMW-53B-042423**	Total Radium Calculation	588253		
50343169001	**GAMW-52-042523**	Total Radium Calculation	589110		
50343169002	**GAMW-52B-042523**	Total Radium Calculation	589110		
50343169005	**FD-03-042523**	Total Radium Calculation	589110		
50343265001	**GAMW-54-042623**	Total Radium Calculation	589447		
50343265002	**GAMW-54B-042623**	Total Radium Calculation	589447		
50343265003	**GAMW-55R-042623**	Total Radium Calculation	589447		
50343266001	**GAMW-55B-042623**	Total Radium Calculation	589429		
50343266002	**FB-03-042623**	Total Radium Calculation	589429		
50343609001	**GAMW-68-050123**	Total Radium Calculation	590582		
50343609002	**GAMW-68B-050123**	Total Radium Calculation	590582		
50343609003	**FB-04-050123**	Total Radium Calculation	590582		
50343609004	**FD-04-050123**	Total Radium Calculation	590582		

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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50341961

50341961

Section A – Required Client Information:	Section B – Required Project Information:	Section C – Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	Regulatory Agency
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N): Analysis Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)
1	GAMW-01	WT																	X	
2	GAMW-01B	WT																	X	
3	GAMW-68	WT																	X	
4	GAMW-68B	WT																	X	
5	GAMW-03	WT																	X	
6	GAMW-03B	WT																	X	
7	GAMW-12	WT																	X	
8	GAMW-12B	WT																	X	
9	GAMW-13	WT																	X	
10	GAMW-13B	WT																	X	
11	GAMW-14 – 041223	WT	G				1340		2			2							X	001
12	GAMW-14B –041223	WT	G				1325		2			2							X	002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	FE / WSP	4/12/23	1600	FE Daniel Hawkins/Pace	4/13/23	0855	2.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: 4/12/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 4/13/23 1222

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 **A** B C D E F
4. **Cooler Temperature(s):** 2.7°/2.5°C
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☑ Other Plastic
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																												Red	Yellow	Green	Black
COC Line Item	WGFU	DI	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
		R																														
1																																	
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																	2												WT				
12																	2												WT				

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50342143

50342143

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140478Q.011	Pace Profile #:	9045-3

Regulatory Agency	
State / Location	
	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	GAMW-01 – 04/323	WT				4/13/23	1135		2			2						X		001
2	GAMW-01B – 04/323	WT				4/13/23	1250		2			2						X		MS/MSD 002 003 004
3	GAMW-02	WT																X		
4	GAMW-02B	WT																X		
5	GAMW-03	WT																X		
6	GAMW-03B	WT																X		
7	GAMW-12	WT																X		
8	GAMW-12B	WT																X		
9	GAMW-13	WT																X		
10	GAMW-13B	WT																X		
11	GAMW-14	WT																X		
12	GAMW-14B	WT																X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	[signature] / WSP	4/13/23	1600	FedEx						
	FedEx	4.14.23	0900	Nick Stinds / PACE	4.14.23	0900	0.7	Y	Y	Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	[illegible]
SIGNATURE of SAMPLER:	[signature]
DATE Signed:	4/13/23

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 4·14·2023 1129

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B (C) D E F

4. **Cooler Temperature(s):** 0.7 | 0.7 | | | |

(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Plastic Bag

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			X
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
				Present	Absent	No VOA Vials Sent
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC										OTHER						Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																														Red	Yellow	Green	Black
COC Line Item	WGFU	DI	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																	2												WT				
2																	6												WT				
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50342291

50342291

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	Regulatory Agency
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404989, 011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	[redacted]	WT																	X		
2	[redacted]	WT																	X		
3	[redacted]	WT																	X		
4	[redacted]	WT																	X		
5	GAMW-03 — 041423	WT	G			4/14/23	1305		2			2							X		001
6	GAMW-03B — 041423	WT	G			4/14/23	1430		2			2							X		002
7	GAMW-12 — 041423	WT	G			4/14/23	1200		2			2							X		003
8	GAMW-12B — 041423	WT	G			4/14/23	1430		2			2							X		004
9	GAMW-13 — 041423	WT	G			4/14/23	0945		2			2							X		005
10	GAMW-13B — 041423	WT	G			4/14/23	1150		2			2							X		006
11	[redacted]	WT																	X		
12	[redacted]	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	4/14/23	1700	Feaux						
	Feaux	4/17/23	0800		4/17/23	0800	4.8	N	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/14/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 4/15/23 1352 -MW / MCS 4/17/23 0910

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER ____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

.6/.6	4.8/4.8		

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Ziploc

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form MCS 4/17			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER					
COC Line Item	WGFU	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																															
2																															
3																															
4																															
5																2												55			
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields r

WO# : 50342385

50342385

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	81404789.011	Pace Profile #:	9045-3

Regulatory Agency: | State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Analysis Test: Radium 226+228(sum)	Residual Chlorine (Y/N)
13	[redacted]	WT																	X	
14	[redacted]	WT																	X	
15	[redacted]	WT																	X	
16	[redacted]	WT																	X	
17	[redacted]	WT																	X	
18	[redacted]	WT																	X	
19	[redacted]	WT																	X	
20	GAMW-51 – 041523	WT	G			4/15/23	1545		2			2							X	001
21	GAMW-51B – 041523	WT	G			4/17/23	1650		2			2							X	002
22	[redacted]	WT																	X	
23	[redacted]	WT																	X	
24	[redacted]	WT																	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	4/17/23	1630	Fed ex						
	Fed ex			Marcus Winslow	4/18/23	0900	24	Y	Y	Y
							15	✓	✓	✓

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/17/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO
Merrillville, IN 46410	Sarah Gilles	Address:
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3

Regulatory Agency:

State / Location: IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
25	[redacted]	WT																	X		
26	GAMW-59 – 041523	WT	G			4/15/23	1810		2			2							X		003
27	GAMW-59B – 041523	WT	G			4/15/23	1905		2			2							X		004
28	[redacted]	WT																	X		
29	GAMW-60B	WT																	X		
30	[redacted]	WT																	X		
31	GAMW-08B	WT																	X		
32	[redacted]	WT																	X		
33	[redacted]	WT																	X		
34	GAMW-16R	WT																	X		
35	[redacted]	WT																	X		
36	GAMW-17	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	[redacted] 4/17/23	[redacted]	1630	Fedex						
	Fedex			Maureen Winkler	4/18/23	0900	2.4 / 1.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [redacted]

SIGNATURE of SAMPLER: [redacted]

DATE Signed: 4/17/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 4/18/23 1303 -MW

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 2.4/2.4 | 1.5/1.5 | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: GAMW-59-041523 Containers not labelled with time - MW 4/18/23

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	VIALS: MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VIALS: VOA VIAL HS (>6mm)	VIALS: VG9U	VIALS: DG9U	VIALS: VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																2											Gt	
9																↓											↓	
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1																												
2																2												5
3																F												F
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50342609

50342609

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency: | State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
25	[redacted]	WT																	X		
26	[redacted]	WT																	X		
27	[redacted]	WT																	X		
28	[redacted]	WT																	X		
29	[redacted]	WT																	X		
30	[redacted]	WT																	X		
31	[redacted]	WT																	X		
32	GAMW-09 – 041923	WT	G			4/19/23			2			2							X		001
33	GAMW-09B – 041923	WT	G			4/19/23			2			2							X		002
34	[redacted]	WT																	X		
35	[redacted]	WT																	X		
36	GAMW-17 – 041923	WT	G			4/19/23	1340		2			2							X		003

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	4/19/23		FEDEX						
	FEDEX	4/20/23	0940		4/20/23	0940	2.3	Y	Y	Y
							2.8			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. Brennan

SIGNATURE of SAMPLER: [signature] DATE Signed: 4/19/23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140789.011	Pace Profile #:	9045-3

Regulatory Agency: | State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analytes Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)
37	GAMW-17B	WT																	X	
38	GAMW-18 -041923	WT	G			4/19/23	1340		2			2							X	CCM
39	GAMW-18B	WT																	X	
40	GAMW-46	WT																	X	
41	GAMW-46B	WT																	X	
42	GAMW-52	WT																	X	
43	GAMW-52B	WT																	X	
44	GAMW-53	WT																	X	
45	GAMW-53B	WT																	X	
46	GAMW-54	WT																	X	
47	GAMW-54B	WT																	X	
48	GAMW-55R	WT																	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	4/19/23		PDx						
	PDx	4/19/23	0840		4/20/23	0910	2.3			
							2.8	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/19/23

CHAIN-OF-CUSTODY / Analytical Request Document

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Page : 3 of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
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	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:		Pace Profile #:	9045-3

Regulatory Agency:

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Y/N	Analyses Test: Radium 226+228(sum)	Residual Chlorine (Y/N)	
49	[redacted]	WT																	X		
50	[redacted]	WT																	X		
51	[redacted]	WT																	X		
52	FD-01 – 041923	WT	G			4/19/23	1200		2			2							X		005
53	[redacted]	WT																	X		
54	[redacted]	WT																	X		
55	[redacted]	WT																	X		
56	[redacted]	WT																	X		
57	FB-01 – 041923	WT	G			4/19/23	1345		2			2							X		006
58	[redacted]	WT																	X		
59	[redacted]	WT																	X		
60	[redacted]	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA		4/19/23		FEDEX						
	FEDEX	4/20/23	0710		4/20/23	0810	2.3	Y	Y	Y
							2.8			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

F-IN-Q-290-rev.22, 22Apr2022

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 4/26/23 1145

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 2.3/2.3 | 2.5/2.5 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS:

COC PAGE 1 **of** 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER							
		SBS																													
		DI																													
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																															
2																															
3																															
4																															
5																															
6																															
7																															
8																2												WT				
9																2												WT				
10																															
11																															
12																2												WT				

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1																												
2																2												WT
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 3 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1																												
2																												
3																												
4																2												45
5																												
6																												
7																												
8																												
9																2												45
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
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Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request D

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WO# : 50342779

50342779

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
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	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
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Regulatory Agency: | State / Location: IN

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37	GAMW-17B – 042023	WT	G			4/20/23	1025		2			2							X	
38	[redacted]	WT																	X	
39	GAMW-18B – 042023	WT	G			4/20/23	1005		2			2							X	
40	[redacted]	WT																	X	
41	[redacted]	WT																	X	
42	[redacted]	WT																	X	
43	GAMW-52B	WT																	X	
44	[redacted]	WT																	X	
45	[redacted]	WT																	X	
46	[redacted]	WT																	X	
47	[redacted]	WT																	X	
48	GAMW-55R	WT																	X	

Residual Chlorine (Y/N): 001 004 009 | 002 RC 4-21-23 | 002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	4/20/23	1630							
	Fedex	4/21/23	0910		4/21/23	0910	SW	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/20/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

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	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140478900011	Pace Profile #:	9045-3

Regulatory Agency: —

State / Location: IN

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25	GAMW-58B	WT																	X		
26	GAMW-59	WT																	X		
27	GAMW-59B	WT																	X		
28	GAMW-60 – 042023	WT	G			4/20/23	1115		2			2							X		003
29	GAMW-60B – 042023	WT	G			4/20/23	1225		2			2							X		004
30	GAMW-66	WT																	X		
31	GAMW-66B	WT																	X		
32	GAMW-67	WT																	X		
33	GAMW-67B	WT																	X		
34	GAMW-16R – 042023	WT	G			4/20/23	1355		2			2							X		005
35	GAMW-16RR	WT																	X		
36	GAMW-17	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	4/20/23	1630							
	Fedex	4/21/23	0910		4/21/23	0910	See Sur	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GUZMAN

SIGNATURE of SAMPLER: [signature] DATE Signed: 4/20/23

CHAIN-OF-CUSTODY / Analytical Request Document

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	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140478 9. 01	Pace Profile #:	9045-3

Regulatory Agency	State / Location
	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
49	[redacted]	WT																	X		
50	[redacted]	WT																	X		
51	[redacted]	WT																	X		
52	[redacted]	WT																	X		
53	FD-02 -042023	WT	G			4/20/23	1200		2			2							X		006
54	[redacted]	WT																	X		
55	[redacted]	WT																	X		
56	[redacted]	WT																	X		
57	[redacted]	WT																	X		
58	FB-02 - 042023	WT	G			4/21/23	1230		2			2							X		007
59	[redacted]	WT																	X		
60	[redacted]	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	4/20/23	1630							
	Fedex	4/21/23	0910		4/21/23	0910		Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GUZMAN

SIGNATURE of SAMPLER: [signature]

DATE Signed: 4/20/23

F-IN-Q-290-rev.22, 22Apr2022

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MCS 4/21/23 1033

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 1.1/1.2 | 1.1/1.2 | 1.4/1.5 | (Initial/Corrected)
   RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS					AMBER GLASS							PLASTIC								OTHER							
		MeOH (only)																										Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																										Red	Yellow	Green	Black
		DI																													
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																6												WT				
2																																
3																2												WT				
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid, Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		MeOH (only)																											Red	Yellow	Green	Black
		SBS																													
		DI																													
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																															
2																															
3																												5			
4																2												WA			
5																2												WA			
6																															
7																															
8																															
9																															
10																2												WA			
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
~~BP3F~~	~~250mL HNO3 plastic field filtered~~
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
~~SL~~	~~Solid-Solid~~
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 3 of 3

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER							
		MeOH (only)																												
		SBS																												
		DI																												
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																														
2																														
3																														
4																														
5																2														
6																														
7																														
8																														
9																														
10																2														
11																														
12																														

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid-Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO#: 50342910

50342910

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A — Required Client Information:

Company:	NiSource_WSP
Address:	801 E. 86th Avenue
	Merrillville, IN 46410
Email:	Thomas.Haskins@wsp.com
Phone:	(603)782-2433 Fax
Requested Due Date:	10 day TAT

Section B

Report To:	
Copy To:	Gabriel Dixon, Danielle Sylvia
	Sarah Gilles
Purchase Order #:	PO33924
Project Name:	RMSGS Assessment Apr23
Project #:	314047894.011

Section C — Invoice Information:

Attention:	Jeff Loewe U126177
Company Name:	NIPSCO
Address:	
Pace Quote:	
Pace Project Manager:	tina.sayer@pacelabs.com,
Pace Profile #:	9045-3

Regulatory Agency: | State / Location: IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
49	GAMW-55B	WT																	X		
50	GAMW-56 – 042123	WT	G			4/21/23	1055		2			2							X		001
51	GAMW-56B – 042123	WT	G			4/21/23	1330		2			2							X		002
52	FB-01	WT																	X		
53	FD-02	WT																	X		
54	FD-03	WT																	X		
55	FD-04	WT																	X		
56	FD-05	WT																	X		
57	FB-01	WT																	X		
58	FB-02	WT																	X		
59	FB-03	WT																	X		
60	FB-04	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	4/21/23	1130	FedEx						
	FedEx	4.22.23	0915	Nicole Shields / PACE	4.22.23	0915	0.4; 0.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [redacted]

SIGNATURE of SAMPLER: [redacted] DATE Signed: 4/21/23

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 4.22.2023 0940

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C (D) E F

4. **Cooler Temperature(s):** 0.4/0.4 | 0.3/0.3 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Plastic Bag

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			X
Short Hold Time Analysis (48 hours or less)? **Analysis:** ~~Nitrates by 353.2~~ NMS 4.22.23	X	X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
				Present	Absent	No VOA Vials Sent
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	VIALS: MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VIALS: VOA VIAL HS (>6mm)	VIALS: VG9U	VIALS: DG9U	VIALS: VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ Zn Ac Black NaOH/Zn Ac >9
1																																
2																2													WT				
3																2													WT				
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
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CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50342911

50342911

IN-OF-CUSTODY / Analytical Request Document

ain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	Regulatory Agency
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 314047789.011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
25	GAMW-58B	WT																	X		
26	GAMW-59	WT																	X		
27	GAMW-59B	WT																	X		
28	GAMW-60	WT																	X		
29	GAMW-60B	WT																	X		
30	GAMW-08 – 042123	WT	G			4/21/23	0955		2			2							X		001
31	GAMW-08B – 042123	WT	G			4/21/23	1050		2			2							X		002
32	GAMW-09	WT																	X		
33	GAMW-09B	WT																	X		
34	GAMW-16R	WT																	X		
35	GAMW-16BR – 042123	WT	G			4/21/23	0940		2			2							X		003
36	GAMW-17	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	4/21/23	1630	FedEx						
	FedEx	4-22-23	0915	Nicole Shields / PACE	4-22-23	0915	0.4 : 0.3 :	Y	Y	Y

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:			TEMP in C	Received on Ice (Y/N)	Custody Seal Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	DATE Signed: 4/21/23					

F-IN-Q-290-rev.22, 22Apr2022

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 4.22.2023 0940

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☒ OTHER NO
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No — NMS 4.22.23
3. **(If yes)Seals Intact:** ☒ Yes ☐ No (leave blank if no seals were present)
4. **Thermometer:** 1 2 3 4 5 6 A B C (D) E F
5. **Cooler Temperature(s):** (Initial/Corrected) 0.4/0.4 | 0.3/0.3 | | | RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
6. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Plastic Bag
7. **Ice Type:** ☒ Wet ☐ Blue ☐ None
8. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No — Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			X
Short Hold Time Analysis (48 hours or less)? **Analysis:** ~~Nitrates by 353.2~~ NMS 4.22.23	X	X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	VIALS: MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VIALS: VOA VIAL HS (>6mm)	VIALS: VG9U	VIALS: DG9U	VIALS: VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																																
3																																
4																																
5																																
6																2												WT				
7																2												WT				
8																																
9																																
10																																
11																2												WT				
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50343023

50343023

Request Document

evant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:			
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011/04	Pace Profile #:	9045-3

Regulatory Agency:

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)
37	[redacted]	WT																	X	
38	[redacted]	WT																	X	
39	[redacted]	WT																	X	
40	[redacted]	WT																	X	
41	[redacted]	WT																	X	
42	[redacted]	WT																	X	
43	[redacted]	WT																	X	
44	GAMW-53 - 042423	WT	G			4/24/23	1105		2			2							X	
45	GAMW-53B - 042423	WT	G			4/24/23	1250		2			2							X	
46	[redacted]	WT																	X	
47	[redacted]	WT																	X	
49	GAMW-55R	WT																	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	4/24/23	1600	FEDEX						
	FEDEX	4/25/23	0800		4/25/23	0900	1.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/24/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MR 4/25/23 1145

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 ~~A~~ B C D E F

4. **Cooler Temperature(s):** 1.3/1.1 | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containe
that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER					
		SBS																											
		DI																											
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/Zinc Acetate Blue NaOH Zn Ac
1																															
2																															
3																															
4																															
5																															
6																															
7																															
8																2												5			
9																2												5			
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mus

WO# : 50343169

50343169

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	34047189.011/04	Pace Profile #:	9045-3

Regulatory Agency: | State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)	
37	[redacted]	WT																	X		
38	[redacted]	WT																	X		
39	[redacted]	WT																	X		
40	[redacted]	WT																	X		
41	[redacted]	WT																	X		
42	GAMW-52 – 042523	WT	G			4/25/23	0905		2			2							X		CU
43	GAMW-52B – 042523	WT	G			4/25/23	1110		2			2							X		MS2/MSD2 002 003 004
44	GAMW-53 -	WT																	X		
45	[redacted]	WT																	X		
46	[redacted]	WT																	X		
47	[redacted]	WT																	X		
48	[redacted]	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	[signature] / WSP	4/25/23	1300	[signature]	4/26	0905	0.7	y	y	y
							0.5			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R [redacted]

SIGNATURE of SAMPLER: [signature]

DATE Signed: 4/25/23

TEMP in C | Received on ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011 /04	Pace Profile #:	9045-3

Regulatory Agency: —

State / Location: IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)
49	[redacted]	WT																	X	
50	[redacted]	WT																	X	
51	[redacted]	WT																	X	
52	[redacted]	WT																	X	
53	[redacted]	WT																	X	
54	FD-03 – 042523	WT	G			4/25/23	1200		2			2							X	005
55	[redacted]	WT																	X	
56	[redacted] FD-05	WT																	X	
57	[redacted]	WT																	X	
58	[redacted]	WT																	X	
59	[redacted]	WT																	X	
60	[redacted]	WT																	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	4/25/23	1300				0.7	Y	Y	Y
	Pace	4/25	0905		4/26	0905	0.6			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 4/25/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: OA/26/23 1325 SMK

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D (E) F
4. **Cooler Temperature(s):** 0.7/0.7 | 0.5/0.3 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
			Headspace in VOA Vials (>6mm):	Present	Absent	No VOA Vials Sent
Containers Intact?:	✓		See Containter Count form for details			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 **of** 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1																												
2																												
3																												
4																												
5																												
6																2												5
7																↓												↓
8																												
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																											Red	Yellow	Green	Black
COC Line Item	WGFU	R	DI	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																																	
2																																	
3																																	
4																																	
5																																	
6																	2												4				
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50343609

50343609

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	Regulatory Agency
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	[redacted]	WT																	X		
2	[redacted]	WT																	X		
3	GAMW-68 — 050123	WT	G			5/1/23			2			2							X		UU1
4	GAMW-68B — 050123	WT	G			5/1/23			2			2							X		UU2
5	[redacted]	WT																	X		
6	[redacted]	WT																	X		
7	[redacted]	WT																	X		
8	[redacted]	WT																	X		
9	[redacted]	WT																	X		
10	[redacted]	WT																	X		
11	GAMW-14	WT																	X		
12	[redacted]	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	[signature] WSP	5/1/23	1700	[signature]						
	[signature]	5/2	0920	[signature]	5/2	0920	0.9	y	y	y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. Gaumond

SIGNATURE of SAMPLER: [signature] DATE Signed: 5/1/23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140478.9.011	Pace Profile #:	9045-3

Regulatory Agency	
State / Location	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Analysis Test: Radium 226+228(sum)	Residual Chlorine (Y/N)	
61	[redacted] FB-04-050123	WT	G			5/1/23	1445		2			2							X		CW3
62	[redacted]																				
63	[redacted]																				
64	[redacted]																				
65	[redacted]																				
66	[redacted]																				
67	[redacted]																				
68	[redacted]																				
69	[redacted]																				
70	[redacted]																				
71	[redacted]																				
72	[redacted]																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace PA	[redacted] / WSP	5/1/23	1700	[redacted]						
	KSR	5/2	0910		5/2	0910	04	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GUERRA

SIGNATURE of SAMPLER: [redacted]

DATE Signed: 5/1/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 05/02/23 1240 SMK

1. **Courier:** ☐ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☐ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 0.8/0.9 | | | |
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☐ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS: RCND additional BPIN containers FD-04_050123 @1200 -DW2

Analyze FD-04-050123 per D. Sylvia email. 05/02/23tms

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC										OTHER					Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																														Red	Yellow	Green	Black
COC Line Item	WGFU	DI	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																																	
2																																	
3																	2												4				
4																	1												1				
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

)G9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
)G9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
)G9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
)G9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
)G9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
'G9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
'G9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
'G9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
1	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
VGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
VGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
GFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
:G3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
G3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
G1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
G1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS					AMBER GLASS							PLASTIC									OTHER						Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		MeOH (only)																											Red	Yellow	Green	Black
		SBS																														
		DI																														
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																2												5				
2																↓	RD-04 050123 @1200											↓				
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

)G9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
)G9P	40mL TSP amber vial	BG1U	1L unpreserved glass
)G9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
)G9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
)G9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
G9H	40mL HCl clear vial	AG1H	1L HCl amber glass
G9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
G9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
/GKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
/GFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
GFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
G3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
G3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
G1H	1L HCl clear glass	AG3U	250mL unpres amber glass
G1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

May 23, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory between April 28, 2023 and May 06, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343391001	**GAMW-46-042723**	Water	04/27/23 12:25	04/28/23 08:50
50343391002	**GAMW-46B-042723**	Water	04/27/23 13:55	04/28/23 08:50
50343749001	**GAMW-42-050223**	Water	05/02/23 10:35	05/03/23 09:30
50343749002	**GAMW-42B-050223**	Water	05/02/23 12:50	05/03/23 09:30
50343920001	**GAMW-42C-050323**	Water	05/03/23 11:00	05/04/23 09:25
50343920002	**GAMW-43-050323**	Water	05/03/23 13:00	05/04/23 09:25
50343920003	**GAMW-43B-050323**	Water	05/03/23 14:25	05/04/23 09:25
50343920004	**FD-05-050323**	Water	05/03/23 12:00	05/04/23 09:25
50344057001	**GAMW-44-050423**	Water	05/04/23 11:05	05/05/23 08:50
50344057002	**GAMW-44B-050423**	Water	05/04/23 12:25	05/05/23 08:50
50344057003	**GAMW-57-050423**	Water	05/04/23 13:55	05/05/23 08:50
50344058001	**FB-05-050423**	Water	05/04/23 14:10	05/05/23 08:50
50344194001	**GAMW-57B-050523**	Water	05/05/23 10:15	05/06/23 09:15
50344194002	**GAMW-58-050523**	Water	05/05/23 11:50	05/06/23 09:15
50344194003	**GAMW-58B-050523**	Water	05/05/23 13:10	05/06/23 09:15

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343391001	**GAMW-46-042723**	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343391002	**GAMW-46B-042723**	EPA 9056	RMR	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343749001	**GAMW-42-050223**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343749002	**GAMW-42B-050223**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50343920001	**GAMW-42C-050323**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343920002	**GAMW-43-050323**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343920003	**GAMW-43B-050323**	EPA 9056	ADM	3	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50343920004	**FD-05-050323**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	TRK	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50344057001	**GAMW-44-050423**	EPA 9056	RID	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50344057002	**GAMW-44B-050423**	EPA 9056	RID	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50344057003	**GAMW-57-050423**	EPA 9056	RID	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50344058001	**FB-05-050423**	EPA 9056	RID	3	PASI-I
		EPA 6010	DJS	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50344194001	**GAMW-57B-050523**	EPA 9056	RID	3	PASI-I
		EPA 6010	ELK	3	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	MGM	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50344194002	**GAMW-58-050523**	EPA 9056	RID	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	MGM	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50344194003	**GAMW-58B-050523**	EPA 9056	RID	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	MGM	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343391001	**GAMW-46-042723**					
EPA 9056	Chloride	2.1	mg/L	0.25	05/12/23 10:23	
EPA 9056	Fluoride	0.062J	mg/L	0.050	05/12/23 10:23	
EPA 9056	Sulfate	36.5	mg/L	0.25	05/12/23 10:23	
EPA 6010	Calcium	32.7	mg/L	1.0	05/11/23 11:21	
EPA 6020	Antimony	0.00012J	mg/L	0.0010	05/03/23 01:24	
EPA 6020	Arsenic	0.00033J	mg/L	0.0010	05/03/23 01:24	
EPA 6020	Barium	0.0082	mg/L	0.0010	05/03/23 01:24	
EPA 6020	Chromium	0.00034J	mg/L	0.0020	05/03/23 01:24	
EPA 6020	Cobalt	0.00013J	mg/L	0.0010	05/03/23 01:24	
EPA 6020	Lead	0.000053J	mg/L	0.0010	05/03/23 01:24	
EPA 6020	Molybdenum	0.00047J	mg/L	0.0010	05/03/23 01:24	
SM 2540C	Total Dissolved Solids	149	mg/L	10.0	05/01/23 17:05	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/09/23 16:26	H3
50343391002	**GAMW-46B-042723**					
EPA 9056	Chloride	6.9	mg/L	0.25	05/10/23 20:59	
EPA 9056	Fluoride	0.052J	mg/L	0.050	05/10/23 20:59	
EPA 9056	Sulfate	65.3	mg/L	2.5	05/12/23 10:41	
EPA 6010	Boron	0.049J	mg/L	0.10	05/11/23 11:23	
EPA 6010	Calcium	51.8	mg/L	1.0	05/11/23 11:23	
EPA 6020	Antimony	0.000053J	mg/L	0.0010	05/03/23 01:28	
EPA 6020	Arsenic	0.00051J	mg/L	0.0010	05/03/23 01:28	
EPA 6020	Barium	0.025	mg/L	0.0010	05/03/23 01:28	
EPA 6020	Chromium	0.00027J	mg/L	0.0020	05/03/23 01:28	
EPA 6020	Cobalt	0.000051J	mg/L	0.0010	05/03/23 01:28	
EPA 6020	Lead	0.000042J	mg/L	0.0010	05/03/23 01:28	
EPA 6020	Molybdenum	0.0024	mg/L	0.0010	05/03/23 01:28	
SM 2540C	Total Dissolved Solids	202	mg/L	10.0	05/01/23 17:05	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	05/09/23 16:27	H3
50343749001	**GAMW-42-050223**					
EPA 9056	Chloride	11.1	mg/L	2.5	05/12/23 07:20	
EPA 9056	Fluoride	0.16	mg/L	0.050	05/12/23 07:03	
EPA 9056	Sulfate	52.5	mg/L	2.5	05/12/23 07:20	
EPA 6010	Calcium	64.7	mg/L	1.0	05/12/23 15:13	
EPA 6020	Antimony	0.000084J	mg/L	0.0010	05/10/23 17:36	
EPA 6020	Arsenic	0.00092J	mg/L	0.0010	05/10/23 17:36	
EPA 6020	Barium	0.023	mg/L	0.0010	05/10/23 17:36	
EPA 6020	Chromium	0.00073J	mg/L	0.0020	05/10/23 17:36	
EPA 6020	Cobalt	0.000083J	mg/L	0.0010	05/10/23 17:36	
EPA 6020	Lead	0.000060J	mg/L	0.0010	05/10/23 17:36	
EPA 6020	Molybdenum	0.0036	mg/L	0.0010	05/10/23 17:36	
SM 2540C	Total Dissolved Solids	235	mg/L	10.0	05/05/23 08:22	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/12/23 15:34	H3
50343749002	**GAMW-42B-050223**					
EPA 9056	Chloride	11.1	mg/L	2.5	05/12/23 08:47	
EPA 9056	Fluoride	0.16	mg/L	0.050	05/12/23 08:30	
EPA 9056	Sulfate	46.9	mg/L	0.25	05/12/23 08:30	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343749002	**GAMW-42B-050223**					
EPA 6010	Calcium	67.6	mg/L	1.0	05/12/23 15:15	
EPA 6020	Antimony	0.000076J	mg/L	0.0010	05/10/23 17:39	
EPA 6020	Arsenic	0.00030J	mg/L	0.0010	05/10/23 17:39	
EPA 6020	Barium	0.023	mg/L	0.0010	05/10/23 17:39	
EPA 6020	Chromium	0.00084J	mg/L	0.0020	05/10/23 17:39	
EPA 6020	Cobalt	0.00014J	mg/L	0.0010	05/10/23 17:39	
EPA 6020	Lead	0.00016J	mg/L	0.0010	05/10/23 17:39	
EPA 6020	Molybdenum	0.0030	mg/L	0.0010	05/10/23 17:39	
SM 2540C	Total Dissolved Solids	244	mg/L	10.0	05/05/23 08:23	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	05/12/23 15:35	H3
50343920001	**GAMW-42C-050323**					
EPA 9056	Chloride	11.4	mg/L	2.5	05/14/23 15:37	
EPA 9056	Fluoride	0.22	mg/L	0.050	05/14/23 15:20	
EPA 9056	Sulfate	11.9	mg/L	0.25	05/14/23 15:20	
EPA 6010	Boron	0.74	mg/L	0.10	05/12/23 15:22	
EPA 6010	Calcium	57.4	mg/L	1.0	05/12/23 15:22	
EPA 6010	Lithium	0.033	mg/L	0.010	05/12/23 15:22	
EPA 6020	Antimony	0.000091J	mg/L	0.0010	05/10/23 17:52	
EPA 6020	Arsenic	0.00055J	mg/L	0.0010	05/10/23 17:52	
EPA 6020	Barium	0.010	mg/L	0.0010	05/10/23 17:52	
EPA 6020	Chromium	0.0015J	mg/L	0.0020	05/10/23 17:52	
EPA 6020	Cobalt	0.00048J	mg/L	0.0010	05/10/23 17:52	
EPA 6020	Lead	0.00074J	mg/L	0.0010	05/10/23 17:52	
EPA 6020	Molybdenum	0.0037	mg/L	0.0010	05/10/23 17:52	
EPA 6020	Thallium	0.000040J	mg/L	0.0010	05/10/23 17:52	
SM 2540C	Total Dissolved Solids	277	mg/L	10.0	05/06/23 09:00	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/18/23 13:03	H3
50343920002	**GAMW-43-050323**					
EPA 9056	Chloride	0.39	mg/L	0.25	05/14/23 16:47	
EPA 9056	Fluoride	0.14	mg/L	0.050	05/14/23 16:47	
EPA 9056	Sulfate	24.6	mg/L	0.25	05/14/23 16:47	
EPA 6010	Calcium	25.2	mg/L	1.0	05/12/23 15:25	
EPA 6020	Antimony	0.00027J	mg/L	0.0010	05/10/23 17:56	
EPA 6020	Arsenic	0.0023	mg/L	0.0010	05/10/23 17:56	
EPA 6020	Barium	0.015	mg/L	0.0010	05/10/23 17:56	
EPA 6020	Cadmium	0.000013J	mg/L	0.00020	05/10/23 17:56	
EPA 6020	Chromium	0.00074J	mg/L	0.0020	05/10/23 17:56	
EPA 6020	Cobalt	0.00068J	mg/L	0.0010	05/10/23 17:56	
EPA 6020	Lead	0.00025J	mg/L	0.0010	05/10/23 17:56	
EPA 6020	Molybdenum	0.0031	mg/L	0.0010	05/10/23 17:56	
EPA 6020	Selenium	0.00028J	mg/L	0.0010	05/10/23 17:56	
SM 2540C	Total Dissolved Solids	111	mg/L	10.0	05/06/23 09:00	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	05/18/23 13:04	H3
50343920003	**GAMW-43B-050323**					
EPA 9056	Chloride	1.6	mg/L	0.25	05/14/23 17:40	
EPA 9056	Fluoride	0.18	mg/L	0.050	05/14/23 17:40	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343920003	**GAMW-43B-050323**					
EPA 9056	Sulfate	21.7	mg/L	0.25	05/14/23 17:40	
EPA 6010	Calcium	38.2	mg/L	1.0	05/12/23 15:27	
EPA 6020	Antimony	0.000088J	mg/L	0.0010	05/10/23 18:19	
EPA 6020	Arsenic	0.00044J	mg/L	0.0010	05/10/23 18:19	
EPA 6020	Barium	0.012	mg/L	0.0010	05/10/23 18:19	
EPA 6020	Chromium	0.00060J	mg/L	0.0020	05/10/23 18:19	
EPA 6020	Cobalt	0.00013J	mg/L	0.0010	05/10/23 18:19	
EPA 6020	Lead	0.00014J	mg/L	0.0010	05/10/23 18:19	
EPA 6020	Molybdenum	0.0022	mg/L	0.0010	05/10/23 18:19	
SM 2540C	Total Dissolved Solids	156	mg/L	10.0	05/06/23 09:00	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	05/18/23 13:06	H3
50343920004	**FD-05-050323**					
EPA 9056	Chloride	0.39	mg/L	0.25	05/14/23 18:32	
EPA 9056	Fluoride	0.14	mg/L	0.050	05/14/23 18:32	
EPA 9056	Sulfate	24.6	mg/L	0.25	05/14/23 18:32	
EPA 6010	Calcium	25.8	mg/L	1.0	05/12/23 15:29	
EPA 6020	Antimony	0.00026J	mg/L	0.0010	05/10/23 18:23	
EPA 6020	Arsenic	0.0023	mg/L	0.0010	05/10/23 18:23	
EPA 6020	Barium	0.015	mg/L	0.0010	05/10/23 18:23	
EPA 6020	Cadmium	0.000015J	mg/L	0.00020	05/10/23 18:23	
EPA 6020	Chromium	0.00077J	mg/L	0.0020	05/10/23 18:23	
EPA 6020	Cobalt	0.00068J	mg/L	0.0010	05/10/23 18:23	
EPA 6020	Lead	0.00029J	mg/L	0.0010	05/10/23 18:23	
EPA 6020	Molybdenum	0.0031	mg/L	0.0010	05/10/23 18:23	
EPA 6020	Selenium	0.00030J	mg/L	0.0010	05/10/23 18:23	
SM 2540C	Total Dissolved Solids	102	mg/L	10.0	05/08/23 14:02	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	05/18/23 13:07	H3
50344057001	**GAMW-44-050423**					
EPA 9056	Chloride	3.2	mg/L	0.25	05/16/23 18:52	
EPA 9056	Fluoride	0.13	mg/L	0.050	05/16/23 18:52	
EPA 9056	Sulfate	45.7	mg/L	2.5	05/16/23 19:10	
EPA 6010	Calcium	15.2	mg/L	1.0	05/17/23 08:39	
EPA 6020	Antimony	0.00044J	mg/L	0.0010	05/10/23 18:26	
EPA 6020	Arsenic	0.058	mg/L	0.0010	05/10/23 18:26	
EPA 6020	Barium	0.032	mg/L	0.0010	05/10/23 18:26	
EPA 6020	Beryllium	0.00030	mg/L	0.00020	05/10/23 18:26	
EPA 6020	Chromium	0.0061	mg/L	0.0020	05/10/23 18:26	
EPA 6020	Cobalt	0.0017	mg/L	0.0010	05/10/23 18:26	
EPA 6020	Lead	0.0014	mg/L	0.0010	05/10/23 18:26	
EPA 6020	Molybdenum	0.0037	mg/L	0.0010	05/10/23 18:26	
EPA 6020	Selenium	0.00095J	mg/L	0.0010	05/10/23 18:26	
SM 2540C	Total Dissolved Solids	159	mg/L	10.0	05/10/23 08:30	
SM 4500-H+B	pH at 25 Degrees C	6.3	Std. Units	0.10	05/19/23 08:15	H3
50344057002	**GAMW-44B-050423**					
EPA 9056	Chloride	1.6	mg/L	0.25	05/16/23 19:45	
EPA 9056	Fluoride	0.13	mg/L	0.050	05/16/23 19:45	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50344057002	**GAMW-44B-050423**					
EPA 9056	Sulfate	6.5	mg/L	0.25	05/16/23 19:45	
EPA 6010	Calcium	30.7	mg/L	1.0	05/17/23 08:46	
EPA 6020	Antimony	0.000061J	mg/L	0.0010	05/10/23 18:29	
EPA 6020	Arsenic	0.00030J	mg/L	0.0010	05/10/23 18:29	
EPA 6020	Barium	0.0084	mg/L	0.0010	05/10/23 18:29	
EPA 6020	Chromium	0.00041J	mg/L	0.0020	05/10/23 18:29	
EPA 6020	Cobalt	0.000060J	mg/L	0.0010	05/10/23 18:29	
EPA 6020	Lead	0.00026J	mg/L	0.0010	05/10/23 18:29	
EPA 6020	Molybdenum	0.0018	mg/L	0.0010	05/10/23 18:29	
SM 2540C	Total Dissolved Solids	81	mg/L	10.0	05/10/23 08:30	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	05/19/23 08:16	H3
50344057003	**GAMW-57-050423**					
EPA 9056	Chloride	2.2	mg/L	0.25	05/16/23 21:12	
EPA 9056	Sulfate	47.9	mg/L	2.5	05/16/23 21:29	
EPA 6010	Calcium	18.9	mg/L	1.0	05/17/23 08:48	
EPA 6020	Arsenic	0.00012J	mg/L	0.0010	05/10/23 18:33	
EPA 6020	Barium	0.016	mg/L	0.0010	05/10/23 18:33	
EPA 6020	Beryllium	0.000059J	mg/L	0.00020	05/10/23 18:33	
EPA 6020	Cadmium	0.000093J	mg/L	0.00020	05/10/23 18:33	
EPA 6020	Chromium	0.00096J	mg/L	0.0020	05/10/23 18:33	
EPA 6020	Cobalt	0.0015	mg/L	0.0010	05/10/23 18:33	
EPA 6020	Lead	0.00051J	mg/L	0.0010	05/10/23 18:33	
EPA 6020	Molybdenum	0.0010	mg/L	0.0010	05/10/23 18:33	
SM 2540C	Total Dissolved Solids	95	mg/L	10.0	05/10/23 08:32	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	05/19/23 08:17	H3
50344058001	**FB-05-050423**					
EPA 9056	Chloride	0.19J	mg/L	0.25	05/16/23 22:04	
EPA 6020	Barium	0.0015	mg/L	0.0010	05/10/23 17:16	C0
EPA 6020	Chromium	0.00028J	mg/L	0.0020	05/10/23 17:16	
SM 4500-H+B	pH at 25 Degrees C	6.3	Std. Units	0.10	05/19/23 08:19	H3
50344194001	**GAMW-57B-050523**					
EPA 9056	Chloride	15.3	mg/L	0.25	05/17/23 00:41	
EPA 9056	Fluoride	0.15	mg/L	0.050	05/17/23 00:41	
EPA 9056	Sulfate	16.9	mg/L	0.25	05/17/23 00:41	
EPA 6010	Boron	0.064J	mg/L	0.10	05/18/23 11:01	
EPA 6010	Calcium	47.8	mg/L	1.0	05/18/23 11:01	
EPA 6020	Arsenic	0.00063J	mg/L	0.0010	05/17/23 23:38	
EPA 6020	Barium	0.020	mg/L	0.0010	05/17/23 23:38	
EPA 6020	Chromium	0.00036J	mg/L	0.0020	05/17/23 23:38	
EPA 6020	Cobalt	0.000095J	mg/L	0.0010	05/17/23 23:38	
EPA 6020	Molybdenum	0.0030	mg/L	0.0010	05/17/23 23:38	
SM 2540C	Total Dissolved Solids	166	mg/L	10.0	05/11/23 08:27	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	05/22/23 12:49	H3
50344194002	**GAMW-58-050523**					
EPA 9056	Chloride	1.0	mg/L	0.25	05/17/23 01:33	

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50344194002	**GAMW-58-050523**					
EPA 9056	Fluoride	0.48	mg/L	0.050	05/17/23 01:33	
EPA 9056	Sulfate	43.1	mg/L	0.25	05/17/23 01:33	
EPA 6010	Calcium	9.5	mg/L	1.0	05/18/23 11:08	
EPA 6020	Arsenic	0.0030	mg/L	0.0010	05/17/23 23:42	
EPA 6020	Barium	0.048	mg/L	0.0010	05/17/23 23:42	
EPA 6020	Beryllium	0.00082	mg/L	0.00020	05/17/23 23:42	
EPA 6020	Cadmium	0.00010J	mg/L	0.00020	05/17/23 23:42	
EPA 6020	Chromium	0.0010J	mg/L	0.0020	05/17/23 23:42	
EPA 6020	Cobalt	0.012	mg/L	0.0010	05/17/23 23:42	
EPA 6020	Lead	0.00028J	mg/L	0.0010	05/17/23 23:42	
EPA 6020	Molybdenum	0.00052J	mg/L	0.0010	05/17/23 23:42	
EPA 6020	Selenium	0.0029	mg/L	0.0010	05/17/23 23:42	
SM 2540C	Total Dissolved Solids	60	mg/L	10.0	05/11/23 08:28	
SM 4500-H+B	pH at 25 Degrees C	6.1	Std. Units	0.10	05/22/23 12:50	H3
50344194003	**GAMW-58B-050523**					
EPA 9056	Chloride	4.1	mg/L	0.25	05/17/23 02:26	
EPA 9056	Fluoride	0.18	mg/L	0.050	05/17/23 02:26	
EPA 9056	Sulfate	24.1	mg/L	0.25	05/17/23 02:26	
EPA 6010	Calcium	39.4	mg/L	1.0	05/18/23 11:11	
EPA 6020	Arsenic	0.00060J	mg/L	0.0010	05/18/23 00:02	
EPA 6020	Barium	0.014	mg/L	0.0010	05/18/23 00:02	
EPA 6020	Chromium	0.00035J	mg/L	0.0020	05/18/23 00:02	
EPA 6020	Cobalt	0.00011J	mg/L	0.0010	05/18/23 00:02	
EPA 6020	Molybdenum	0.0030	mg/L	0.0010	05/18/23 00:02	
SM 2540C	Total Dissolved Solids	131	mg/L	10.0	05/11/23 08:28	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	05/22/23 12:52	H3

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Method: **EPA 9056**
Description: 9056 IC Anions
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
15 samples were analyzed for EPA 9056 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 732229

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50343330001,50343399002

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3360571)
  - Chloride
  - Fluoride
- MSD (Lab ID: 3360572)
  - Chloride
  - Fluoride

QC Batch: 732629

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50344191001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3362307)
  - Chloride
- MSD (Lab ID: 3362308)
  - Chloride

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Method: **EPA 9056**
Description: 9056 IC Anions
Client: NiSource_WSP Golder
Date: May 23, 2023

QC Batch: 732632

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50344231001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3362325)
  - Sulfate
- MSD (Lab ID: 3362326)
  - Sulfate

Additional Comments:

Analyte Comments:

QC Batch: 732629

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3362307)
  - Chloride
- MSD (Lab ID: 3362308)
  - Chloride

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
15 samples were analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 732537

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50343612001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3361879)
  - Calcium
- MSD (Lab ID: 3361880)
  - Calcium

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
15 samples were analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 733693

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50344194002

M3: Matrix spike recovery was outside laboratory control limits due to matrix interferences.

- MS (Lab ID: 3367258)
  - Selenium
- MSD (Lab ID: 3367259)
  - Selenium

Additional Comments:

Analyte Comments:

QC Batch: 732043

C0: Result confirmed by second analysis.

- FB-05-050423 (Lab ID: 50344058001)
  - Barium

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Method: **EPA 7470**
Description: 7470 Mercury
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
15 samples were analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 731912

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50343309009,50343399002

M3: Matrix spike recovery was outside laboratory control limits due to matrix interferences.

- MS (Lab ID: 3359132)
  - Mercury
- MSD (Lab ID: 3359133)
  - Mercury

Additional Comments:

Analyte Comments:

QC Batch: 731913

1d: Closing CRD 132%. Sample negative for Hg

- GAMW-42-050223 (Lab ID: 50343749001)
  - Mercury

2d: Closing CRDL 132%. Sample negative for Hg.

- GAMW-42B-050223 (Lab ID: 50343749002)
  - Mercury

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
15 samples were analyzed for SM 2540C by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 732605

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-05-050423 (Lab ID: 50344058001)
  - Total Dissolved Solids

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: NiSource_WSP Golder
Date: May 23, 2023

General Information:
15 samples were analyzed for SM 4500-H+B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- FB-05-050423 (Lab ID: 50344058001)
- FD-05-050323 (Lab ID: 50343920004)
- GAMW-42-050223 (Lab ID: 50343749001)
- GAMW-42B-050223 (Lab ID: 50343749002)
- GAMW-42C-050323 (Lab ID: 50343920001)
- GAMW-43-050323 (Lab ID: 50343920002)
- GAMW-43B-050323 (Lab ID: 50343920003)
- GAMW-44-050423 (Lab ID: 50344057001)
- GAMW-44B-050423 (Lab ID: 50344057002)
- GAMW-46-042723 (Lab ID: 50343391001)
- GAMW-46B-042723 (Lab ID: 50343391002)
- GAMW-57-050423 (Lab ID: 50344057003)
- GAMW-57B-050523 (Lab ID: 50344194001)
- GAMW-58-050523 (Lab ID: 50344194002)
- GAMW-58B-050523 (Lab ID: 50344194003)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-46-042723 **Lab ID: 50343391001** Collected: 04/27/23 12:25 Received: 04/28/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.1**	mg/L	0.25	0.067	1		05/12/23 10:23	16887-00-6	
Fluoride	**0.062J**	mg/L	0.050	0.017	1		05/12/23 10:23	16984-48-8	
Sulfate	**36.5**	mg/L	0.25	0.085	1		05/12/23 10:23	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.038	1	05/08/23 08:04	05/11/23 11:21	7440-42-8	
Calcium	**32.7**	mg/L	1.0	0.16	1	05/08/23 08:04	05/11/23 11:21	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/08/23 08:04	05/11/23 11:21	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00012J**	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 01:24	7440-36-0	
Arsenic	**0.00033J**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 01:24	7440-38-2	
Barium	**0.0082**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 01:24	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 01:24	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 01:24	7440-43-9	
Chromium	**0.00034J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 01:24	7440-47-3	
Cobalt	**0.00013J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 01:24	7440-48-4	
Lead	**0.000053J**	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 01:24	7439-92-1	
Molybdenum	**0.00047J**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 01:24	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 01:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 01:24	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:12	05/08/23 17:04	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**149**	mg/L	10.0	10.0	1		05/01/23 17:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		05/09/23 16:26		H3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-46B-042723 **Lab ID: 50343391002** Collected: 04/27/23 13:55 Received: 04/28/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**6.9**	mg/L	0.25	0.067	1		05/10/23 20:59	16887-00-6	
Fluoride	**0.052J**	mg/L	0.050	0.017	1		05/10/23 20:59	16984-48-8	
Sulfate	**65.3**	mg/L	2.5	0.85	10		05/12/23 10:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.049J**	mg/L	0.10	0.038	1	05/08/23 08:04	05/11/23 11:23	7440-42-8	
Calcium	**51.8**	mg/L	1.0	0.16	1	05/08/23 08:04	05/11/23 11:23	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/08/23 08:04	05/11/23 11:23	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000053J**	mg/L	0.0010	0.000036	1	04/30/23 22:14	05/03/23 01:28	7440-36-0	
Arsenic	**0.00051J**	mg/L	0.0010	0.000053	1	04/30/23 22:14	05/03/23 01:28	7440-38-2	
Barium	**0.025**	mg/L	0.0010	0.000051	1	04/30/23 22:14	05/03/23 01:28	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	04/30/23 22:14	05/03/23 01:28	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	04/30/23 22:14	05/03/23 01:28	7440-43-9	
Chromium	**0.00027J**	mg/L	0.0020	0.00013	1	04/30/23 22:14	05/03/23 01:28	7440-47-3	
Cobalt	**0.000051J**	mg/L	0.0010	0.000032	1	04/30/23 22:14	05/03/23 01:28	7440-48-4	
Lead	**0.000042J**	mg/L	0.0010	0.000034	1	04/30/23 22:14	05/03/23 01:28	7439-92-1	
Molybdenum	**0.0024**	mg/L	0.0010	0.000048	1	04/30/23 22:14	05/03/23 01:28	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	04/30/23 22:14	05/03/23 01:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	04/30/23 22:14	05/03/23 01:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/08/23 11:12	05/08/23 17:06	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**202**	mg/L	10.0	10.0	1		05/01/23 17:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		05/09/23 16:27		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-42-050223 **Lab ID: 50343749001** Collected: 05/02/23 10:35 Received: 05/03/23 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**11.1**	mg/L	2.5	0.67	10		05/12/23 07:20	16887-00-6	
Fluoride	**0.16**	mg/L	0.050	0.017	1		05/12/23 07:03	16984-48-8	
Sulfate	**52.5**	mg/L	2.5	0.85	10		05/12/23 07:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:13	7440-42-8	
Calcium	**64.7**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:13	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:13	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000084J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:36	7440-36-0	
Arsenic	**0.00092J**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:36	7440-38-2	
Barium	**0.023**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:36	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:36	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:36	7440-43-9	
Chromium	**0.00073J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:36	7440-47-3	
Cobalt	**0.000083J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:36	7440-48-4	
Lead	**0.000060J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:36	7439-92-1	
Molybdenum	**0.0036**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:36	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:36	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/09/23 11:13	05/09/23 18:17	7439-97-6	1d,F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**235**	mg/L	10.0	10.0	1		05/05/23 08:22		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		05/12/23 15:34		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-42B-050223 **Lab ID: 50343749002** Collected: 05/02/23 12:50 Received: 05/03/23 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**11.1**	mg/L	2.5	0.67	10		05/12/23 08:47	16887-00-6	
Fluoride	**0.16**	mg/L	0.050	0.017	1		05/12/23 08:30	16984-48-8	
Sulfate	**46.9**	mg/L	0.25	0.085	1		05/12/23 08:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:15	7440-42-8	
Calcium	**67.6**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:15	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:15	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000076J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:39	7440-36-0	
Arsenic	**0.00030J**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:39	7440-38-2	
Barium	**0.023**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:39	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:39	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:39	7440-43-9	
Chromium	**0.00084J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:39	7440-47-3	
Cobalt	**0.00014J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:39	7440-48-4	
Lead	**0.00016J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:39	7439-92-1	
Molybdenum	**0.0030**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:39	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/09/23 11:13	05/09/23 18:19	7439-97-6	2d,F5
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**244**	mg/L	10.0	10.0	1		05/05/23 08:23		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.8**	Std. Units	0.10	0.10	1		05/12/23 15:35		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-42C-050323 **Lab ID: 50343920001** Collected: 05/03/23 11:00 Received: 05/04/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**11.4**	mg/L	2.5	0.67	10		05/14/23 15:37	16887-00-6	
Fluoride	**0.22**	mg/L	0.050	0.017	1		05/14/23 15:20	16984-48-8	
Sulfate	**11.9**	mg/L	0.25	0.085	1		05/14/23 15:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.74**	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:22	7440-42-8	
Calcium	**57.4**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:22	7440-70-2	
Lithium	**0.033**	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:22	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000091J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:52	7440-36-0	
Arsenic	**0.00055J**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:52	7440-38-2	
Barium	**0.010**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:52	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:52	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:52	7440-43-9	
Chromium	**0.0015J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:52	7440-47-3	
Cobalt	**0.00048J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:52	7440-48-4	
Lead	**0.00074J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:52	7439-92-1	
Molybdenum	**0.0037**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:52	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:52	7782-49-2	
Thallium	**0.000040J**	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:52	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 07:51	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**277**	mg/L	10.0	10.0	1		05/06/23 09:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/18/23 13:03		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-43-050323 **Lab ID: 50343920002** Collected: 05/03/23 13:00 Received: 05/04/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.39**	mg/L	0.25	0.067	1		05/14/23 16:47	16887-00-6	
Fluoride	**0.14**	mg/L	0.050	0.017	1		05/14/23 16:47	16984-48-8	
Sulfate	**24.6**	mg/L	0.25	0.085	1		05/14/23 16:47	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:25	7440-42-8	
Calcium	**25.2**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:25	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:25	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00027J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:56	7440-36-0	
Arsenic	**0.0023**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:56	7440-38-2	
Barium	**0.015**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:56	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:56	7440-41-7	
Cadmium	**0.000013J**	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:56	7440-43-9	
Chromium	**0.00074J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:56	7440-47-3	
Cobalt	**0.00068J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:56	7440-48-4	
Lead	**0.00025J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:56	7439-92-1	
Molybdenum	**0.0031**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:56	7439-98-7	
Selenium	**0.00028J**	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 07:53	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**111**	mg/L	10.0	10.0	1		05/06/23 09:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		05/18/23 13:04		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-43B-050323 **Lab ID: 50343920003** Collected: 05/03/23 14:25 Received: 05/04/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**1.6**	mg/L	0.25	0.067	1		05/14/23 17:40	16887-00-6	
Fluoride	**0.18**	mg/L	0.050	0.017	1		05/14/23 17:40	16984-48-8	
Sulfate	**21.7**	mg/L	0.25	0.085	1		05/14/23 17:40	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:27	7440-42-8	
Calcium	**38.2**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:27	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:27	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000088J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 18:19	7440-36-0	
Arsenic	**0.00044J**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 18:19	7440-38-2	
Barium	**0.012**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 18:19	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 18:19	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 18:19	7440-43-9	
Chromium	**0.00060J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 18:19	7440-47-3	
Cobalt	**0.00013J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 18:19	7440-48-4	
Lead	**0.00014J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 18:19	7439-92-1	
Molybdenum	**0.0022**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 18:19	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 18:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 18:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 07:56	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**156**	mg/L	10.0	10.0	1		05/06/23 09:00		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		05/18/23 13:06		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: FD-05-050323 **Lab ID: 50343920004** Collected: 05/03/23 12:00 Received: 05/04/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.39**	mg/L	0.25	0.067	1		05/14/23 18:32	16887-00-6	
Fluoride	**0.14**	mg/L	0.050	0.017	1		05/14/23 18:32	16984-48-8	
Sulfate	**24.6**	mg/L	0.25	0.085	1		05/14/23 18:32	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/10/23 17:45	05/12/23 15:29	7440-42-8	
Calcium	**25.8**	mg/L	1.0	0.088	1	05/10/23 17:45	05/12/23 15:29	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/10/23 17:45	05/12/23 15:29	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00026J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 18:23	7440-36-0	
Arsenic	**0.0023**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 18:23	7440-38-2	
Barium	**0.015**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 18:23	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 18:23	7440-41-7	
Cadmium	**0.000015J**	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 18:23	7440-43-9	
Chromium	**0.00077J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 18:23	7440-47-3	
Cobalt	**0.00068J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 18:23	7440-48-4	
Lead	**0.00029J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 18:23	7439-92-1	
Molybdenum	**0.0031**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 18:23	7439-98-7	
Selenium	**0.00030J**	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 18:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 18:23	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/09/23 18:41	05/10/23 07:58	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**102**	mg/L	10.0	10.0	1		05/08/23 14:02		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		05/18/23 13:07		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-44-050423 **Lab ID: 50344057001** Collected: 05/04/23 11:05 Received: 05/05/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**3.2**	mg/L	0.25	0.067	1		05/16/23 18:52	16887-00-6	
Fluoride	**0.13**	mg/L	0.050	0.017	1		05/16/23 18:52	16984-48-8	
Sulfate	**45.7**	mg/L	2.5	0.85	10		05/16/23 19:10	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/15/23 08:55	05/17/23 08:39	7440-42-8	
Calcium	**15.2**	mg/L	1.0	0.088	1	05/15/23 08:55	05/17/23 08:39	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/15/23 08:55	05/17/23 08:39	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00044J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 18:26	7440-36-0	
Arsenic	**0.058**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 18:26	7440-38-2	
Barium	**0.032**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 18:26	7440-39-3	
Beryllium	**0.00030**	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 18:26	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 18:26	7440-43-9	
Chromium	**0.0061**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 18:26	7440-47-3	
Cobalt	**0.0017**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 18:26	7440-48-4	
Lead	**0.0014**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 18:26	7439-92-1	
Molybdenum	**0.0037**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 18:26	7439-98-7	
Selenium	**0.00095J**	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 18:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 18:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/23 09:56	05/10/23 20:15	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**159**	mg/L	10.0	10.0	1		05/10/23 08:30		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.3**	Std. Units	0.10	0.10	1		05/19/23 08:15		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-44B-050423 **Lab ID: 50344057002** Collected: 05/04/23 12:25 Received: 05/05/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**1.6**	mg/L	0.25	0.067	1		05/16/23 19:45	16887-00-6	
Fluoride	**0.13**	mg/L	0.050	0.017	1		05/16/23 19:45	16984-48-8	
Sulfate	**6.5**	mg/L	0.25	0.085	1		05/16/23 19:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/15/23 08:55	05/17/23 08:46	7440-42-8	
Calcium	**30.7**	mg/L	1.0	0.088	1	05/15/23 08:55	05/17/23 08:46	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/15/23 08:55	05/17/23 08:46	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.000061J**	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 18:29	7440-36-0	
Arsenic	**0.00030J**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 18:29	7440-38-2	
Barium	**0.0084**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 18:29	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 18:29	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 18:29	7440-43-9	
Chromium	**0.00041J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 18:29	7440-47-3	
Cobalt	**0.000060J**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 18:29	7440-48-4	
Lead	**0.00026J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 18:29	7439-92-1	
Molybdenum	**0.0018**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 18:29	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 18:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 18:29	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/23 09:56	05/10/23 20:18	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**81**	mg/L	10.0	10.0	1		05/10/23 08:30		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.0**	Std. Units	0.10	0.10	1		05/19/23 08:16		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-57-050423 **Lab ID: 50344057003** Collected: 05/04/23 13:55 Received: 05/05/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.2**	mg/L	0.25	0.067	1		05/16/23 21:12	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		05/16/23 21:12	16984-48-8	
Sulfate	**47.9**	mg/L	2.5	0.85	10		05/16/23 21:29	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/15/23 08:55	05/17/23 08:48	7440-42-8	
Calcium	**18.9**	mg/L	1.0	0.088	1	05/15/23 08:55	05/17/23 08:48	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/15/23 08:55	05/17/23 08:48	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 18:33	7440-36-0	
Arsenic	**0.00012J**	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 18:33	7440-38-2	
Barium	**0.016**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 18:33	7440-39-3	
Beryllium	**0.000059J**	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 18:33	7440-41-7	
Cadmium	**0.000093J**	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 18:33	7440-43-9	
Chromium	**0.00096J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 18:33	7440-47-3	
Cobalt	**0.0015**	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 18:33	7440-48-4	
Lead	**0.00051J**	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 18:33	7439-92-1	
Molybdenum	**0.0010**	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 18:33	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 18:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 18:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/23 09:56	05/10/23 20:20	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**95**	mg/L	10.0	10.0	1		05/10/23 08:32		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		05/19/23 08:17		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: FB-05-050423 **Lab ID: 50344058001** Collected: 05/04/23 14:10 Received: 05/05/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.19J**	mg/L	0.25	0.067	1		05/16/23 22:04	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		05/16/23 22:04	16984-48-8	
Sulfate	ND	mg/L	0.25	0.085	1		05/16/23 22:04	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/15/23 08:55	05/17/23 08:50	7440-42-8	
Calcium	ND	mg/L	1.0	0.088	1	05/15/23 08:55	05/17/23 08:50	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/15/23 08:55	05/17/23 08:50	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000036	1	05/07/23 21:00	05/10/23 17:16	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.000053	1	05/07/23 21:00	05/10/23 17:16	7440-38-2	
Barium	**0.0015**	mg/L	0.0010	0.000051	1	05/07/23 21:00	05/10/23 17:16	7440-39-3	C0
Beryllium	ND	mg/L	0.00020	0.000028	1	05/07/23 21:00	05/10/23 17:16	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.0000090	1	05/07/23 21:00	05/10/23 17:16	7440-43-9	
Chromium	**0.00028J**	mg/L	0.0020	0.00013	1	05/07/23 21:00	05/10/23 17:16	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000032	1	05/07/23 21:00	05/10/23 17:16	7440-48-4	
Lead	ND	mg/L	0.0010	0.000034	1	05/07/23 21:00	05/10/23 17:16	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000048	1	05/07/23 21:00	05/10/23 17:16	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	05/07/23 21:00	05/10/23 17:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000033	1	05/07/23 21:00	05/10/23 17:16	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	05/10/23 09:56	05/10/23 20:30	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		05/10/23 08:32		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.3**	Std. Units	0.10	0.10	1		05/19/23 08:19		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-57B-050523 **Lab ID: 50344194001** Collected: 05/05/23 10:15 Received: 05/06/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**15.3**	mg/L	0.25	0.067	1		05/17/23 00:41	16887-00-6	
Fluoride	**0.15**	mg/L	0.050	0.017	1		05/17/23 00:41	16984-48-8	
Sulfate	**16.9**	mg/L	0.25	0.085	1		05/17/23 00:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.064J**	mg/L	0.10	0.061	1	05/16/23 16:21	05/18/23 11:01	7440-42-8	
Calcium	**47.8**	mg/L	1.0	0.088	1	05/16/23 16:21	05/18/23 11:01	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/16/23 16:21	05/18/23 11:01	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00013	1	05/17/23 06:15	05/17/23 23:38	7440-36-0	
Arsenic	**0.00063J**	mg/L	0.0010	0.00010	1	05/17/23 06:15	05/17/23 23:38	7440-38-2	
Barium	**0.020**	mg/L	0.0010	0.00014	1	05/17/23 06:15	05/17/23 23:38	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	05/17/23 06:15	05/17/23 23:38	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000054	1	05/17/23 06:15	05/17/23 23:38	7440-43-9	
Chromium	**0.00036J**	mg/L	0.0020	0.00020	1	05/17/23 06:15	05/17/23 23:38	7440-47-3	
Cobalt	**0.000095J**	mg/L	0.0010	0.000082	1	05/17/23 06:15	05/17/23 23:38	7440-48-4	
Lead	ND	mg/L	0.0010	0.000080	1	05/17/23 06:15	05/17/23 23:38	7439-92-1	
Molybdenum	**0.0030**	mg/L	0.0010	0.000072	1	05/17/23 06:15	05/17/23 23:38	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00044	1	05/17/23 06:15	05/17/23 23:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000072	1	05/17/23 06:15	05/17/23 23:38	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/11/23 16:08	05/12/23 08:32	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**166**	mg/L	10.0	10.0	1		05/11/23 08:27		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.8**	Std. Units	0.10	0.10	1		05/22/23 12:49		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-58-050523 **Lab ID: 50344194002** Collected: 05/05/23 11:50 Received: 05/06/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**1.0**	mg/L	0.25	0.067	1		05/17/23 01:33	16887-00-6	
Fluoride	**0.48**	mg/L	0.050	0.017	1		05/17/23 01:33	16984-48-8	
Sulfate	**43.1**	mg/L	0.25	0.085	1		05/17/23 01:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/16/23 16:21	05/18/23 11:08	7440-42-8	
Calcium	**9.5**	mg/L	1.0	0.088	1	05/16/23 16:21	05/18/23 11:08	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/16/23 16:21	05/18/23 11:08	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00013	1	05/17/23 06:15	05/17/23 23:42	7440-36-0	
Arsenic	**0.0030**	mg/L	0.0010	0.00010	1	05/17/23 06:15	05/17/23 23:42	7440-38-2	
Barium	**0.048**	mg/L	0.0010	0.00014	1	05/17/23 06:15	05/17/23 23:42	7440-39-3	
Beryllium	**0.00082**	mg/L	0.00020	0.000026	1	05/17/23 06:15	05/17/23 23:42	7440-41-7	
Cadmium	**0.00010J**	mg/L	0.00020	0.000054	1	05/17/23 06:15	05/17/23 23:42	7440-43-9	
Chromium	**0.0010J**	mg/L	0.0020	0.00020	1	05/17/23 06:15	05/17/23 23:42	7440-47-3	
Cobalt	**0.012**	mg/L	0.0010	0.000082	1	05/17/23 06:15	05/17/23 23:42	7440-48-4	
Lead	**0.00028J**	mg/L	0.0010	0.000080	1	05/17/23 06:15	05/17/23 23:42	7439-92-1	
Molybdenum	**0.00052J**	mg/L	0.0010	0.000072	1	05/17/23 06:15	05/17/23 23:42	7439-98-7	
Selenium	**0.0029**	mg/L	0.0010	0.00044	1	05/17/23 06:15	05/17/23 23:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000072	1	05/17/23 06:15	05/17/23 23:42	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/11/23 16:08	05/12/23 08:35	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**60**	mg/L	10.0	10.0	1		05/11/23 08:28		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.1**	Std. Units	0.10	0.10	1		05/22/23 12:50		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Sample: GAMW-58B-050523 **Lab ID: 50344194003** Collected: 05/05/23 13:10 Received: 05/06/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**4.1**	mg/L	0.25	0.067	1		05/17/23 02:26	16887-00-6	
Fluoride	**0.18**	mg/L	0.050	0.017	1		05/17/23 02:26	16984-48-8	
Sulfate	**24.1**	mg/L	0.25	0.085	1		05/17/23 02:26	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.061	1	05/16/23 16:21	05/18/23 11:11	7440-42-8	
Calcium	**39.4**	mg/L	1.0	0.088	1	05/16/23 16:21	05/18/23 11:11	7440-70-2	
Lithium	ND	mg/L	0.010	0.0062	1	05/16/23 16:21	05/18/23 11:11	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00013	1	05/17/23 06:15	05/18/23 00:02	7440-36-0	
Arsenic	**0.00060J**	mg/L	0.0010	0.00010	1	05/17/23 06:15	05/18/23 00:02	7440-38-2	
Barium	**0.014**	mg/L	0.0010	0.00014	1	05/17/23 06:15	05/18/23 00:02	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	05/17/23 06:15	05/18/23 00:02	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000054	1	05/17/23 06:15	05/18/23 00:02	7440-43-9	
Chromium	**0.00035J**	mg/L	0.0020	0.00020	1	05/17/23 06:15	05/18/23 00:02	7440-47-3	
Cobalt	**0.00011J**	mg/L	0.0010	0.000082	1	05/17/23 06:15	05/18/23 00:02	7440-48-4	
Lead	ND	mg/L	0.0010	0.000080	1	05/17/23 06:15	05/18/23 00:02	7439-92-1	
Molybdenum	**0.0030**	mg/L	0.0010	0.000072	1	05/17/23 06:15	05/18/23 00:02	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00044	1	05/17/23 06:15	05/18/23 00:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000072	1	05/17/23 06:15	05/18/23 00:02	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	05/11/23 16:08	05/12/23 08:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**131**	mg/L	10.0	10.0	1		05/11/23 08:28		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		05/22/23 12:52		H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732229
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343391001, 50343391002

METHOD BLANK: 3360569 Matrix: Water
Associated Lab Samples: 50343391001, 50343391002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/12/23 13:50	
Fluoride	mg/L	ND	0.050	0.017	05/12/23 13:50	
Sulfate	mg/L	ND	0.25	0.085	05/12/23 13:50	

LABORATORY CONTROL SAMPLE: 3360570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.0	105	80-120	
Sulfate	mg/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360571 3360572

Parameter	Units	50343399002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3480	2500	2500	4770	4780	52	52	80-120	0	15	M0
Fluoride	mg/L	0.24J	10	10	7.6	7.6	73	74	80-120	1	15	M0
Sulfate	mg/L	226	50	50	272	270	91	88	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3360573 3360574

Parameter	Units	50343330001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	20.5	2.5	2.5	23.2	23.1	105	104	80-120	0	15	
Fluoride	mg/L	2.2	1	1	3.3	3.3	113	113	80-120	0	15	
Sulfate	mg/L	<2.0	5	5	5.1	5.3	102	105	80-120	3	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732629
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343749001, 50343749002

METHOD BLANK: 3362305 Matrix: Water
Associated Lab Samples: 50343749001, 50343749002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/12/23 09:57	
Fluoride	mg/L	ND	0.050	0.017	05/12/23 09:57	
Sulfate	mg/L	ND	0.25	0.085	05/12/23 09:57	

LABORATORY CONTROL SAMPLE: 3362306

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.0	102	80-120	
Sulfate	mg/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362307 3362308

Parameter	Units	50344191001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	9.9	2.5	2.5	13.1	13.2	129	129	80-120	0	15	E,M0
Fluoride	mg/L	0.14	1	1	1.2	1.2	105	106	80-120	0	15	
Sulfate	mg/L	278	500	500	746	745	94	93	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732632
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343920001, 50343920002, 50343920003, 50343920004

METHOD BLANK: 3362323 Matrix: Water
Associated Lab Samples: 50343920001, 50343920002, 50343920003, 50343920004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	05/14/23 04:57	
Fluoride	mg/L	ND	0.050	0.017	05/14/23 04:57	
Sulfate	mg/L	ND	0.25	0.085	05/14/23 04:57	

LABORATORY CONTROL SAMPLE: 3362324

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	80-120	
Fluoride	mg/L	1	1.0	101	80-120	
Sulfate	mg/L	5	4.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3362325 3362326

Parameter	Units	50344231001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	51.7	25	25	76.9	76.8	101	101	80-120	0	15	
Fluoride	mg/L	0.14	1	1	1.2	1.2	104	104	80-120	0	15	
Sulfate	mg/L	1420	500	500	1780	1770	72	71	80-120	0	15	M0

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 733242 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001, 50344194001, 50344194002, 50344194003

METHOD BLANK: 3365248 Matrix: Water
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001, 50344194001, 50344194002, 50344194003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.19J	0.25	0.067	05/16/23 11:29	
Fluoride	mg/L	ND	0.050	0.017	05/16/23 11:29	
Sulfate	mg/L	ND	0.25	0.085	05/16/23 11:29	

LABORATORY CONTROL SAMPLE: 3365249

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	1.0	105	80-120	
Sulfate	mg/L	5	4.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3365250 3365251

Parameter	Units	50344032016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	28600 ug/L	25	25	51.5	53.0	92	98	80-120	3	15	
Fluoride	mg/L	132 ug/L	1	1	1.2	1.2	109	109	80-120	0	15	
Sulfate	mg/L	15100 ug/L	5	5	20.0	20.0	98	98	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 731912
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343391001, 50343391002

METHOD BLANK: 3359128 Matrix: Water
Associated Lab Samples: 50343391001, 50343391002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/08/23 16:42	

LABORATORY CONTROL SAMPLE: 3359129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359130 3359131

Parameter	Units	50343309009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.2	102	103	75-125	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359132 3359133

Parameter	Units	50343399002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.27	15	15	8.8	8.2	58	54	75-125	7	20	M3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 731913
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343749001, 50343749002

METHOD BLANK: 3359143 Matrix: Water
Associated Lab Samples: 50343749001, 50343749002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/09/23 17:13	

LABORATORY CONTROL SAMPLE: 3359144

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359145 3359146

Parameter	Units	50343882002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	5.2	102	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 731917
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343920001, 50343920002, 50343920003, 50343920004

METHOD BLANK: 3359168 Matrix: Water
Associated Lab Samples: 50343920001, 50343920002, 50343920003, 50343920004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/10/23 07:21	

LABORATORY CONTROL SAMPLE: 3359169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.6	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359170 3359171

Parameter	Units	50343704002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.5	5.5	110	109	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732425
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001

METHOD BLANK: 3361392 Matrix: Water
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	05/10/23 19:41	

LABORATORY CONTROL SAMPLE: 3361393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.4	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361394 3361395

Parameter	Units	50344109009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.4	5.2	109	105	75-125	4	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732431
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344194001, 50344194002, 50344194003

METHOD BLANK: 3361424 Matrix: Water
Associated Lab Samples: 50344194001, 50344194002, 50344194003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	05/12/23 07:43	

LABORATORY CONTROL SAMPLE: 3361425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361426 3361427

Parameter	Units	50343703003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	5.1	104	101	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 731475
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343391001, 50343391002

METHOD BLANK: 3356688 Matrix: Water
Associated Lab Samples: 50343391001, 50343391002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.038	05/11/23 10:58	
Calcium	mg/L	ND	1.0	0.16	05/11/23 10:58	
Lithium	mg/L	ND	0.010	0.0062	05/11/23 10:58	

LABORATORY CONTROL SAMPLE: 3356689

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	100	80-120	
Calcium	mg/L	10	10.1	101	80-120	
Lithium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3356690 3356691

Parameter	Units	50343388001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.041J	1	1	1.0	1.0	96	98	75-125	2	20	
Calcium	mg/L	32.8	10	10	41.6	42.1	87	93	75-125	1	20	
Lithium	mg/L	ND	1	1	0.98	1.0	98	101	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732537
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343749001, 50343749002, 50343920001, 50343920002, 50343920003, 50343920004

METHOD BLANK: 3361877 Matrix: Water
Associated Lab Samples: 50343749001, 50343749002, 50343920001, 50343920002, 50343920003, 50343920004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.061	05/12/23 14:48	
Calcium	mg/L	ND	1.0	0.088	05/12/23 14:48	
Lithium	mg/L	ND	0.010	0.0062	05/12/23 14:48	

LABORATORY CONTROL SAMPLE: 3361878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	102	80-120	
Calcium	mg/L	5	5.2	104	80-120	
Lithium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361879 3361880

Parameter	Units	50343612001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	ND	1	1	1.0	1.0	100	100	75-125	0	20	
Calcium	mg/L	62.4	5	5	64.5	63.7	43	27	75-125	1	20	P6
Lithium	mg/L	ND	1	1	1.1	1.1	105	105	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732544
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001

METHOD BLANK: 3361915 Matrix: Water
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.061	05/17/23 08:20	
Calcium	mg/L	ND	1.0	0.088	05/17/23 08:20	
Lithium	mg/L	ND	0.010	0.0062	05/17/23 08:20	

LABORATORY CONTROL SAMPLE: 3361916

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.93	93	80-120	
Calcium	mg/L	5	4.7	93	80-120	
Lithium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3361917 3361918

Parameter	Units	50344056001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	ND	1	1	0.98	1.0	96	102	75-125	7	20	
Calcium	mg/L	14.7	5	5	19.2	20.1	90	109	75-125	5	20	
Lithium	mg/L	ND	1	1	1.0	1.1	103	108	75-125	5	20	

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(317)228-3100

QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 733611
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344194001, 50344194002, 50344194003

METHOD BLANK: 3366881 Matrix: Water
Associated Lab Samples: 50344194001, 50344194002, 50344194003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.061	05/18/23 10:49	
Calcium	mg/L	ND	1.0	0.088	05/18/23 10:49	
Lithium	mg/L	ND	0.010	0.0062	05/18/23 10:49	

LABORATORY CONTROL SAMPLE: 3366882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.97	97	80-120	
Calcium	mg/L	5	5.0	101	80-120	
Lithium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3366883 3366884

Parameter	Units	50344194003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	ND	1	1	1.0	1.0	99	99	75-125	0	20	
Calcium	mg/L	39.4	5	5	44.0	44.2	92	96	75-125	0	20	
Lithium	mg/L	ND	1	1	1.0	1.1	105	106	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 730633
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343391001, 50343391002

METHOD BLANK: 3353694 Matrix: Water
Associated Lab Samples: 50343391001, 50343391002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000036	05/03/23 00:07	
Arsenic	mg/L	ND	0.0010	0.000053	05/03/23 00:07	
Barium	mg/L	ND	0.0010	0.000051	05/03/23 00:07	
Beryllium	mg/L	ND	0.00020	0.000028	05/03/23 00:07	
Cadmium	mg/L	ND	0.00020	0.0000090	05/03/23 00:07	
Chromium	mg/L	ND	0.0020	0.00013	05/03/23 00:07	
Cobalt	mg/L	ND	0.0010	0.000032	05/03/23 00:07	
Lead	mg/L	ND	0.0010	0.000034	05/03/23 00:07	
Molybdenum	mg/L	ND	0.0010	0.000048	05/03/23 00:07	
Selenium	mg/L	ND	0.0010	0.00023	05/03/23 00:07	
Thallium	mg/L	ND	0.0010	0.000033	05/03/23 00:07	

LABORATORY CONTROL SAMPLE: 3353695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	102	80-120	
Arsenic	mg/L	0.04	0.037	94	80-120	
Barium	mg/L	0.04	0.039	98	80-120	
Beryllium	mg/L	0.04	0.039	97	80-120	
Cadmium	mg/L	0.04	0.039	98	80-120	
Chromium	mg/L	0.04	0.040	101	80-120	
Cobalt	mg/L	0.04	0.041	102	80-120	
Lead	mg/L	0.04	0.040	101	80-120	
Molybdenum	mg/L	0.04	0.042	104	80-120	
Selenium	mg/L	0.04	0.040	99	80-120	
Thallium	mg/L	0.04	0.041	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353696 3353697

Parameter	Units	50343172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.000072J	0.04	0.04	0.041	0.042	103	105	75-125	2	20	
Arsenic	mg/L	0.00050J	0.04	0.04	0.038	0.039	93	95	75-125	2	20	
Barium	mg/L	0.11	0.04	0.04	0.14	0.15	94	101	75-125	2	20	
Beryllium	mg/L	ND	0.04	0.04	0.040	0.040	99	101	75-125	2	20	
Cadmium	mg/L	ND	0.04	0.04	0.038	0.039	95	97	75-125	2	20	
Chromium	mg/L	0.00032J	0.04	0.04	0.040	0.040	98	100	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3353696 3353697

Parameter	Units	50343172002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.000077J	0.04	0.04	0.039	0.040	97	100	75-125	3	20	
Lead	mg/L	0.000036J	0.04	0.04	0.040	0.041	101	102	75-125	1	20	
Molybdenum	mg/L	0.0046	0.04	0.04	0.046	0.047	103	105	75-125	1	20	
Selenium	mg/L	ND	0.04	0.04	0.039	0.041	98	101	75-125	3	20	
Thallium	mg/L	ND	0.04	0.04	0.041	0.042	103	105	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732043
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343749001, 50343749002, 50343920001, 50343920002, 50343920003, 50343920004, 50344057001, 50344057002, 50344057003, 50344058001

METHOD BLANK: 3359829 Matrix: Water
Associated Lab Samples: 50343749001, 50343749002, 50343920001, 50343920002, 50343920003, 50343920004, 50344057001, 50344057002, 50344057003, 50344058001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000036	05/10/23 17:06	
Arsenic	mg/L	ND	0.0010	0.000053	05/10/23 17:06	
Barium	mg/L	ND	0.0010	0.000051	05/10/23 17:06	
Beryllium	mg/L	ND	0.00020	0.000028	05/10/23 17:06	
Cadmium	mg/L	ND	0.00020	0.0000090	05/10/23 17:06	
Chromium	mg/L	ND	0.0020	0.00013	05/10/23 17:06	
Cobalt	mg/L	ND	0.0010	0.000032	05/10/23 17:06	
Lead	mg/L	ND	0.0010	0.000034	05/10/23 17:06	
Molybdenum	mg/L	ND	0.0010	0.000048	05/10/23 17:06	
Selenium	mg/L	ND	0.0010	0.00023	05/10/23 17:06	
Thallium	mg/L	ND	0.0010	0.000033	05/10/23 17:06	

LABORATORY CONTROL SAMPLE: 3359830

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.042	104	80-120	
Arsenic	mg/L	0.04	0.040	99	80-120	
Barium	mg/L	0.04	0.040	99	80-120	
Beryllium	mg/L	0.04	0.041	103	80-120	
Cadmium	mg/L	0.04	0.039	98	80-120	
Chromium	mg/L	0.04	0.041	103	80-120	
Cobalt	mg/L	0.04	0.041	103	80-120	
Lead	mg/L	0.04	0.041	102	80-120	
Molybdenum	mg/L	0.04	0.041	102	80-120	
Selenium	mg/L	0.04	0.040	100	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359831 3359832

Parameter	Units	50343920002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00027J	0.04	0.04	0.042	0.042	105	105	75-125	0	20	
Arsenic	mg/L	0.0023	0.04	0.04	0.042	0.042	100	99	75-125	1	20	
Barium	mg/L	0.015	0.04	0.04	0.054	0.055	100	101	75-125	1	20	
Beryllium	mg/L	ND	0.04	0.04	0.042	0.041	104	103	75-125	1	20	
Cadmium	mg/L	0.000013J	0.04	0.04	0.040	0.040	99	100	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3359831 3359832

Parameter	Units	50343920002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00074J	0.04	0.04	0.042	0.042	103	103	75-125	1	20	
Cobalt	mg/L	0.00068J	0.04	0.04	0.041	0.041	101	100	75-125	0	20	
Lead	mg/L	0.00025J	0.04	0.04	0.041	0.041	102	102	75-125	0	20	
Molybdenum	mg/L	0.0031	0.04	0.04	0.045	0.044	104	103	75-125	1	20	
Selenium	mg/L	0.00028J	0.04	0.04	0.040	0.040	98	99	75-125	0	20	
Thallium	mg/L	ND	0.04	0.04	0.042	0.042	104	105	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 733693
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344194001, 50344194002, 50344194003

METHOD BLANK: 3367256 Matrix: Water
Associated Lab Samples: 50344194001, 50344194002, 50344194003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.00013	05/17/23 23:30	
Arsenic	mg/L	ND	0.0010	0.00010	05/17/23 23:30	
Barium	mg/L	ND	0.0010	0.00014	05/17/23 23:30	
Beryllium	mg/L	ND	0.00020	0.000026	05/17/23 23:30	
Cadmium	mg/L	ND	0.00020	0.000054	05/17/23 23:30	
Chromium	mg/L	ND	0.0020	0.00020	05/17/23 23:30	
Cobalt	mg/L	ND	0.0010	0.000082	05/17/23 23:30	
Lead	mg/L	ND	0.0010	0.000080	05/17/23 23:30	
Molybdenum	mg/L	ND	0.0010	0.000072	05/17/23 23:30	
Selenium	mg/L	ND	0.0010	0.00044	05/17/23 23:30	
Thallium	mg/L	ND	0.0010	0.000072	05/17/23 23:30	

LABORATORY CONTROL SAMPLE: 3367257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	103	80-120	
Arsenic	mg/L	0.04	0.039	96	80-120	
Barium	mg/L	0.04	0.039	98	80-120	
Beryllium	mg/L	0.04	0.040	99	80-120	
Cadmium	mg/L	0.04	0.039	98	80-120	
Chromium	mg/L	0.04	0.041	102	80-120	
Cobalt	mg/L	0.04	0.041	101	80-120	
Lead	mg/L	0.04	0.040	101	80-120	
Molybdenum	mg/L	0.04	0.039	98	80-120	
Selenium	mg/L	0.04	0.039	97	80-120	
Thallium	mg/L	0.04	0.040	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3367258 3367259

Parameter	Units	50344194002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.041	0.041	103	103	75-125	1	20	
Arsenic	mg/L	0.0030	0.04	0.04	0.038	0.038	88	87	75-125	0	20	
Barium	mg/L	0.048	0.04	0.04	0.087	0.090	99	106	75-125	3	20	
Beryllium	mg/L	0.00082	0.04	0.04	0.042	0.042	102	102	75-125	1	20	
Cadmium	mg/L	0.00010J	0.04	0.04	0.040	0.040	99	100	75-125	0	20	
Chromium	mg/L	0.0010J	0.04	0.04	0.043	0.043	105	105	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3367258 3367259

Parameter	Units	50344194002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.012	0.04	0.04	0.051	0.052	100	101	75-125	1	20	
Lead	mg/L	0.00028J	0.04	0.04	0.041	0.041	101	101	75-125	0	20	
Molybdenum	mg/L	0.00052J	0.04	0.04	0.036	0.036	89	90	75-125	1	20	
Selenium	mg/L	0.0029	0.04	0.04	0.029	0.028	65	62	75-125	4	20	M3
Thallium	mg/L	ND	0.04	0.04	0.040	0.041	101	102	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 730829
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343391001, 50343391002

METHOD BLANK: 3354257 Matrix: Water
Associated Lab Samples: 50343391001, 50343391002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/01/23 17:04	

LABORATORY CONTROL SAMPLE: 3354258

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	278	93	80-120	

SAMPLE DUPLICATE: 3354259

Parameter	Units	50343399002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	10400	10500	1	10	

SAMPLE DUPLICATE: 3354260

Parameter	Units	50343477002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	737	755	2	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 731629
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343749001, 50343749002

METHOD BLANK: 3357519 Matrix: Water
Associated Lab Samples: 50343749001, 50343749002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/05/23 08:21	

LABORATORY CONTROL SAMPLE: 3357520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	268	89	80-120	

SAMPLE DUPLICATE: 3357521

Parameter	Units	50343741002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	334	322	4	10	

SAMPLE DUPLICATE: 3357522

Parameter	Units	50343890001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3600	3590	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732048 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343920001, 50343920002, 50343920003

METHOD BLANK: 3359845 Matrix: Water
Associated Lab Samples: 50343920001, 50343920002, 50343920003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/06/23 08:54	

LABORATORY CONTROL SAMPLE: 3359846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	287	96	80-120	

SAMPLE DUPLICATE: 3359847

Parameter	Units	50343808014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2000	1990	0	10	

SAMPLE DUPLICATE: 3359848

Parameter	Units	50343808015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1980	1980	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732205
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343920004

METHOD BLANK: 3360500 Matrix: Water
Associated Lab Samples: 50343920004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/08/23 13:59	

LABORATORY CONTROL SAMPLE: 3360501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 3360502

Parameter	Units	50344177020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	385	394	2	10	

SAMPLE DUPLICATE: 3360503

Parameter	Units	50343925001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	728	725	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732605 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001

METHOD BLANK: 3362209 Matrix: Water
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/10/23 08:26	

LABORATORY CONTROL SAMPLE: 3362210

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3362211

Parameter	Units	50344040008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1730	1760	1	10	

SAMPLE DUPLICATE: 3362212

Parameter	Units	50344053001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	662	664	0	10	

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REPORT OF LABORATORY ANALYSIS

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(317)228-3100

QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732851 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344194001, 50344194002, 50344194003

METHOD BLANK: 3363581 Matrix: Water
Associated Lab Samples: 50344194001, 50344194002, 50344194003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	05/11/23 08:26	

LABORATORY CONTROL SAMPLE: 3363582

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	283	94	80-120	

SAMPLE DUPLICATE: 3363583

Parameter	Units	50344228001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	717	707	1	10	

SAMPLE DUPLICATE: 3363584

Parameter	Units	50344229002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2270	2290	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 732519
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343391001, 50343391002

SAMPLE DUPLICATE: 3361812

Parameter	Units	50343347003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	1	2	H3

SAMPLE DUPLICATE: 3361813

Parameter	Units	50344061002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 733299
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343749001, 50343749002

SAMPLE DUPLICATE: 3365620

Parameter	Units	50343743005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.1	8.1	0	2	H3

SAMPLE DUPLICATE: 3365621

Parameter	Units	50343791001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 733791
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50343920001, 50343920002, 50343920003, 50343920004

SAMPLE DUPLICATE: 3367533

Parameter	Units	50343791002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.3	0	2	H3

SAMPLE DUPLICATE: 3367534

Parameter	Units	50343791003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 733797
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344057001, 50344057002, 50344057003, 50344058001

SAMPLE DUPLICATE: 3367543

Parameter	Units	50344013014 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.4	0	2	H3

SAMPLE DUPLICATE: 3367544

Parameter	Units	50344022001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

QC Batch: 735024
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50344194001, 50344194002, 50344194003

SAMPLE DUPLICATE: 3373164

Parameter	Units	50343888001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.6	7.7	0	2	H3

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QUALIFIERS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	Closing CRD 132%. Sample negative for Hg
2d	Closing CRDL 132%. Sample negative for Hg.
C0	Result confirmed by second analysis.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
F5	The recovery of the analyte in the CRDL standard (also known as the reporting limit verification) did not meet the acceptance criteria.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343391001	**GAMW-46-042723**	EPA 9056	732229		
50343391002	**GAMW-46B-042723**	EPA 9056	732229		
50343749001	**GAMW-42-050223**	EPA 9056	732629		
50343749002	**GAMW-42B-050223**	EPA 9056	732629		
50343920001	**GAMW-42C-050323**	EPA 9056	732632		
50343920002	**GAMW-43-050323**	EPA 9056	732632		
50343920003	**GAMW-43B-050323**	EPA 9056	732632		
50343920004	**FD-05-050323**	EPA 9056	732632		
50344057001	**GAMW-44-050423**	EPA 9056	733242		
50344057002	**GAMW-44B-050423**	EPA 9056	733242		
50344057003	**GAMW-57-050423**	EPA 9056	733242		
50344058001	**FB-05-050423**	EPA 9056	733242		
50344194001	**GAMW-57B-050523**	EPA 9056	733242		
50344194002	**GAMW-58-050523**	EPA 9056	733242		
50344194003	**GAMW-58B-050523**	EPA 9056	733242		
50343391001	**GAMW-46-042723**	EPA 3010	731475	EPA 6010	732891
50343391002	**GAMW-46B-042723**	EPA 3010	731475	EPA 6010	732891
50343749001	**GAMW-42-050223**	EPA 3010	732537	EPA 6010	733200
50343749002	**GAMW-42B-050223**	EPA 3010	732537	EPA 6010	733200
50343920001	**GAMW-42C-050323**	EPA 3010	732537	EPA 6010	733200
50343920002	**GAMW-43-050323**	EPA 3010	732537	EPA 6010	733200
50343920003	**GAMW-43B-050323**	EPA 3010	732537	EPA 6010	733200
50343920004	**FD-05-050323**	EPA 3010	732537	EPA 6010	733200
50344057001	**GAMW-44-050423**	EPA 3010	732544	EPA 6010	733777
50344057002	**GAMW-44B-050423**	EPA 3010	732544	EPA 6010	733777
50344057003	**GAMW-57-050423**	EPA 3010	732544	EPA 6010	733777
50344058001	**FB-05-050423**	EPA 3010	732544	EPA 6010	733777
50344194001	**GAMW-57B-050523**	EPA 3010	733611	EPA 6010	734355
50344194002	**GAMW-58-050523**	EPA 3010	733611	EPA 6010	734355
50344194003	**GAMW-58B-050523**	EPA 3010	733611	EPA 6010	734355
50343391001	**GAMW-46-042723**	EPA 200.2	730633	EPA 6020	730839
50343391002	**GAMW-46B-042723**	EPA 200.2	730633	EPA 6020	730839
50343749001	**GAMW-42-050223**	EPA 200.2	732043	EPA 6020	732222
50343749002	**GAMW-42B-050223**	EPA 200.2	732043	EPA 6020	732222
50343920001	**GAMW-42C-050323**	EPA 200.2	732043	EPA 6020	732222
50343920002	**GAMW-43-050323**	EPA 200.2	732043	EPA 6020	732222
50343920003	**GAMW-43B-050323**	EPA 200.2	732043	EPA 6020	732222
50343920004	**FD-05-050323**	EPA 200.2	732043	EPA 6020	732222
50344057001	**GAMW-44-050423**	EPA 200.2	732043	EPA 6020	732222
50344057002	**GAMW-44B-050423**	EPA 200.2	732043	EPA 6020	732222
50344057003	**GAMW-57-050423**	EPA 200.2	732043	EPA 6020	732222
50344058001	**FB-05-050423**	EPA 200.2	732043	EPA 6020	732222
50344194001	**GAMW-57B-050523**	EPA 200.2	733693	EPA 6020	734226
50344194002	**GAMW-58-050523**	EPA 200.2	733693	EPA 6020	734226

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344194003	**GAMW-58B-050523**	EPA 200.2	733693	EPA 6020	734226
50343391001	**GAMW-46-042723**	EPA 7470	731912	EPA 7470	732271
50343391002	**GAMW-46B-042723**	EPA 7470	731912	EPA 7470	732271
50343749001	**GAMW-42-050223**	EPA 7470	731913	EPA 7470	732526
50343749002	**GAMW-42B-050223**	EPA 7470	731913	EPA 7470	732526
50343920001	**GAMW-42C-050323**	EPA 7470	731917	EPA 7470	732578
50343920002	**GAMW-43-050323**	EPA 7470	731917	EPA 7470	732578
50343920003	**GAMW-43B-050323**	EPA 7470	731917	EPA 7470	732578
50343920004	**FD-05-050323**	EPA 7470	731917	EPA 7470	732578
50344057001	**GAMW-44-050423**	EPA 7470	732425	EPA 7470	732774
50344057002	**GAMW-44B-050423**	EPA 7470	732425	EPA 7470	732774
50344057003	**GAMW-57-050423**	EPA 7470	732425	EPA 7470	732774
50344058001	**FB-05-050423**	EPA 7470	732425	EPA 7470	732774
50344194001	**GAMW-57B-050523**	EPA 7470	732431	EPA 7470	733096
50344194002	**GAMW-58-050523**	EPA 7470	732431	EPA 7470	733096
50344194003	**GAMW-58B-050523**	EPA 7470	732431	EPA 7470	733096
50343391001	**GAMW-46-042723**	SM 2540C	730829		
50343391002	**GAMW-46B-042723**	SM 2540C	730829		
50343749001	**GAMW-42-050223**	SM 2540C	731629		
50343749002	**GAMW-42B-050223**	SM 2540C	731629		
50343920001	**GAMW-42C-050323**	SM 2540C	732048		
50343920002	**GAMW-43-050323**	SM 2540C	732048		
50343920003	**GAMW-43B-050323**	SM 2540C	732048		
50343920004	**FD-05-050323**	SM 2540C	732205		
50344057001	**GAMW-44-050423**	SM 2540C	732605		
50344057002	**GAMW-44B-050423**	SM 2540C	732605		
50344057003	**GAMW-57-050423**	SM 2540C	732605		
50344058001	**FB-05-050423**	SM 2540C	732605		
50344194001	**GAMW-57B-050523**	SM 2540C	732851		
50344194002	**GAMW-58-050523**	SM 2540C	732851		
50344194003	**GAMW-58B-050523**	SM 2540C	732851		
50343391001	**GAMW-46-042723**	SM 4500-H+B	732519		
50343391002	**GAMW-46B-042723**	SM 4500-H+B	732519		
50343749001	**GAMW-42-050223**	SM 4500-H+B	733299		
50343749002	**GAMW-42B-050223**	SM 4500-H+B	733299		
50343920001	**GAMW-42C-050323**	SM 4500-H+B	733791		
50343920002	**GAMW-43-050323**	SM 4500-H+B	733791		
50343920003	**GAMW-43B-050323**	SM 4500-H+B	733791		
50343920004	**FD-05-050323**	SM 4500-H+B	733791		
50344057001	**GAMW-44-050423**	SM 4500-H+B	733797		
50344057002	**GAMW-44B-050423**	SM 4500-H+B	733797		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343391

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344057003	**GAMW-57-050423**	SM 4500-H+B	733797		
50344058001	**FB-05-050423**	SM 4500-H+B	733797		
50344194001	**GAMW-57B-050523**	SM 4500-H+B	735024		
50344194002	**GAMW-58-050523**	SM 4500-H+B	735024		
50344194003	**GAMW-58B-050523**	SM 4500-H+B	735024		

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CHAIN-OF-CUSTODY / Analytical Request F

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields m

WO# : 50343391

50343391

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:			
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177	Regulatory Agency	
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO		
Merrillville, IN 46410			Sarah Gilles	Address:			
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:			
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,	State / Location	
Requested Due Date:	10 day TAT	Project #:	3140478 9.011	Pace Profile #:	9045-1		IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
37	[redacted]	WT																X	X	X	X		
38	[redacted]	WT																X	X	X	X		
39	[redacted]	WT																X	X	X	X		
40	GAMW-46 – 042723	WT	G			4/27/23	1225		3	2		1						X	X	X	X		001
41	GAMW-46B – 042723	WT	G			4/27/23	1355		3	2		1						X	X	X	X		002
42	[redacted]	WT																X	X	X	X		
43	[redacted]	WT																X	X	X	X		
44	[redacted]	WT																X	X	X	X		
45	[redacted]	WT																X	X	X	X		
46	[redacted]	WT																X	X	X	X		
47	[redacted]	WT																X	X	X	X		
48	[redacted]	WT																X	X	X	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	[signature] TRS	4/27/23	1600	[signature]						
	[signature] for	4/28	950	[signature]	4/28	950	0.7	Y	Y	Y

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	[signature]		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	[signature]	DATE Signed: 4/27/23				

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 04/28/23 1000 SMK

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 0.7/0.7 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER				Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																											Red	Yellow	Green	Black
COC Line Item	WGFU	DI	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																																
2																																
3																																
4																		1	1	1								5	✓			
5																		↓	↓	↓								4	✓			
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50343749

50343749

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:			
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177		
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO		
	Merrillville, IN 46410		Sarah Gilles	Address:		Regulatory Agency	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:			
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,	State / Location	
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1		IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
13	GAMW-42 – 050223	WT	G			5/2/23	1035		3	2		1							x	x	x	x		UC1
14	GAMW-42B – 050223	WT	G			5/2/23	1250		3	2		1							x	x	x	x		UC2
15	[redacted]	WT																	x	x	x	x		
16	[redacted]	WT																	x	x	x	x		
17	[redacted]	WT																	x	x	x	x		
18	[redacted]	WT																	x	x	x	x		
19	[redacted]	WT																	x	x	x	x		
20	[redacted]	WT																	x	x	x	x		
21	GAMW-51B	WT																	x	x	x	x		
22	[redacted]	WT																	x	x	x	x		
23	GAMW-57B	WT																	x	x	x	x		
24	[redacted]	WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	WSP	5/2/23	1530	Fedex						
	Fedex	5/3/23	09:30		5/3/23	0930	1.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 5/2/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/3/23 1430 IL

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E (F)
4. **Cooler Temperature(s):** 1.0/1.0 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle:** **HNO3 (<2)** **H2SO4 (<2)** **NaOH (>10)** **NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER							
		MeOH (only)																												
		SBS																												
		DI																												
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	2	1	2		1								✓	✓		
2																	↓	↓	↓		↓							↓	✓	✓		
3																																
4																																
5																																
6																																
7																																
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12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
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DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50343920

50343920

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	
Merrillville, IN 46410	Sarah Gilles	Address:	Regulatory Agency
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-1	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
13	[redacted]	WT																	x	x	x	x		
14	[redacted]	WT																	x	x	x	x		
15	GAMW-42C - 050323	WT	G			5/3/23	1100		3	2		1							x	x	x	x		GW1
16	GAMW-43 - 050323	WT	G			5/3/23	1300		3	2		1							x	x	x	x		GW2
17	GAMW-43B - 050323	WT	G			5/3/23	1425		3	2		1							x	x	x	x		GW3
18	[redacted]	WT																	x	x	x	x		
19	[redacted]	WT																	x	x	x	x		
20	[redacted]	WT																	x	x	x	x		
21	[redacted]	WT																	x	x	x	x		
22	[redacted]	WT																	x	x	x	x		
23	[redacted]	WT																	x	x	x	x		
24	[redacted]	WT																	x	x	x	x		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**48 HOUR HOLD- Nitrate 353.2	WSP	5/3/23	1630	FEDEX			
	FEDEX	5/4/23	0925		5/4/23	0925	1.8

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:		DATE Signed: 5/3/23	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:						

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Regulatory Agency
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 3140789.011	Pace Profile #: 9045-1	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
61	[redacted] FD-05-050323	WT				5/3/23	1200		3	2		1							X	X	X	X		CL4
62	[redacted]																								
63	[redacted]																								
64	[redacted]																								
65	[redacted]																								
66	[redacted]																								
67	[redacted]																								
68	[redacted]																								
69	[redacted]																								
70	[redacted]																								
71	[redacted]																								
72	[redacted]																								

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**48 HOUR HOLD- Nitrate 353.2	WSP	5/3/23	1630	FEDEX			
	FEDEX	5/4/23	0825	[signature]	5/4/23	0825	1.8 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GUZMAN

SIGNATURE of SAMPLER: [signature] DATE Signed: 5/3/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MR 5/4/23 1230

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 1.8/1.8 | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS:

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																
2																																
3																	1	1	1									WS	✓			
4																	↓	↓	↓									↓	↓			
5																	↓	↓	↓									↓	↓			
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER				Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black
COC Line Item	WGFU	SBS / DI / R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																	I	I	I													
2																																
3																																
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5																																
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8																																
9																																
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11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields m

WO# : 50344057

50344057

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
13	[redacted]	WT																	X	X	X	X	
14	[redacted]	WT																	X	X	X	X	
15	GAMW-42C	WT																	X	X	X	X	
16	[redacted]	WT																	X	X	X	X	
17	[redacted]	WT																	X	X	X	X	
18	GAMW-44 – 050423	WT	G			5/4/23	1105		3	2		1							X	X	X	X	Col
19	GAMW-44B – 050423	WT	G			5/4/23	1225		3	2		1							X	X	X	X	Col 2
20	[redacted]	WT																	X	X	X	X	
21	[redacted]	WT																	X	X	X	X	
22	GAMW-57 – 050423	WT	G			5/4/23	1355		3	2		1							X	X	X	X	Col 3
23	[redacted]	WT																	X	X	X	X	
24	[redacted]	WT																	X	X	X	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	WSP	5/4/23	1630	Fedex						
	Fedex	5/5/23	0850		5/5/23	0850	3.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 5/4/23

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/5/23 1040 IL

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 3.0/3.0 | | | |
   (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER							
		MeOH (only)	SBS	DI																										
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																														
2																														
3																														
4																														
5																														
6																	↓	↓	↓									✓			
7																	↓	↓	↓									✓			
8																														
9																														
10																	1	1	1									✓			
11																														
12																														

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50344058

50344058

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140789.011	Pace Profile #:	9045-1

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
61	FB-05 -080423	WT	G			5/4/23	1440		3	2		1							x	x	x	x	
62																							
63																							
64																							
65																							
66																							
67																							
68																							
69																							
70																							
71																							
72																							

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	WSP	5/4/23	1630	Fedex						
	Fedex	5/5/23	0850	DL	5/5/23	0850	3.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: K GUZMAN

SIGNATURE of SAMPLER: [signature]

DATE Signed: 5/4/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/5/23 1040 IL

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 3.0/3.0 | | | |
(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:**		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER							
		MeOH (only) SBS DI																												
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	—	—	—									WT	✓			
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	AG3S	250mL H2SO4 amber glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	AG3SF	250mL H2SO4 amb glass -field filtered
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	AG3U	250mL unpres amber glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	AG3C	250mL NaOH amber glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass		
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass		
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass		
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass		
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass		
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass		
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass		
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass		
CG3H	250mL clear glass HCl				
CG3F	250mL clear glass HCl, Field Filter				
BG1H	1L HCl clear glass				
BG1S	1L H2SO4 clear glass				

Plastic

BP1B	1L NaOH plastic	BP3U	250mL unpreserved plastic
BP1N	1L HNO3 plastic	BP3S	250mL H2SO4 plastic
BP1S	1L H2SO4 plastic	BP3Z	250mL NaOH, ZnAc plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50344194

50344194

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ENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:	Invoice Information:
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO
Merrillville, IN 46410	Sarah Gilles	Address:
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:
Phone: (603)782-2433 Fax	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-1

Regulatory Agency:

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
13	[redacted]	WT																	X	X	X	X		
14	[redacted]	WT																	X	X	X	X		
15	[redacted]	WT																	X	X	X	X		
16	[redacted]	WT																	X	X	X	X		
17	[redacted]	WT																	X	X	X	X		
18	[redacted]	WT																	X	X	X	X		
19	[redacted]	WT																	X	X	X	X		
20	[redacted]	WT																	X	X	X	X		
21	[redacted]	WT																	X	X	X	X		
22	[redacted]	WT																	X	X	X	X		
23	GAMW-57B — 050523	WT	G			5/5/23	1015		3	2		1						X	X	X	X		001
24	GAMW-58 — 050523	WT	G			5/5/23	1150		3	2		1						X	X	X	X		002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**48 HOUR HOLD- Nitrate 353.2	WSP	5/5/23	1500	Fed ex						
	Fed ex			Marcus Winburn	5/6/23	0015	1.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [redacted]

SIGNATURE of SAMPLER: [redacted] DATE Signed: 5/5/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency: | State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
25	GAMW-58B — 050523	WT	G			5/5/23	1310		3	2		1							x	x	x	x		003
26	[redacted]	WT																	x	x	x	x		
27	GAMW-59B	WT																	x	x	x	x		
28	[redacted]	WT																	x	x	x	x		
29	[redacted]	WT																	x	x	x	x		
30	[redacted]	WT																	x	x	x	x		
31	[redacted]	WT																	x	x	x	x		
32	[redacted]	WT																	x	x	x	x		
33	[redacted]	WT																	x	x	x	x		
34	[redacted]	WT																	x	x	x	x		
35	[redacted]	WT																	x	x	x	x		
36	[redacted]	WT																	x	x	x	x		

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**48 HOUR HOLD- Nitrate 353.2	WSP / Fed ex	5/5/23	1500	Fed ex						
	Fed ex			Marcus Winslow	5/6/23	0615	1.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: K. Gardner

SIGNATURE of SAMPLER: [signature] DATE Signed: 5/5/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/6/23 1345-MW

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 (A) B C D E (F)

4. **Cooler Temperature(s):** 1.0 | 1.0 **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS						AMBER GLASS							PLASTIC									OTHER							
			SBS																											Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			DI																											Red	Yellow	Green	Black
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																	1	1	1									WT	✓			
12																	↓	↓	↓									↓	↓			

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
1	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
GFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
G3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
G3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
G1H	1L HCl clear glass	AG3U	250mL unpres amber glass
G1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER						Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																													Red	Yellow	Green	Black
		DI																																
CCC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9		
1																	1	1	1									ST	✓					
2																																		
3																																		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
VGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
VGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
GFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
G3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
G1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
G1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

June 19, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory between April 28, 2023 and May 06, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
- Pace Analytical Services - Greensburg

Revised report replaces report dated 06/13/23. Samples moved per client request. 06/19/23tms

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50343389001	**GAMW-46-042723**	Water	04/27/23 12:25	04/28/23 08:50
50343389002	**GAMW-46B-042723**	Water	04/27/23 13:55	04/28/23 08:50
50343750001	**GAMW-42-050223**	Water	05/02/23 10:35	05/03/23 09:30
50343750002	**GAMW-42B-050223**	Water	05/02/23 12:50	05/03/23 09:30
50343918001	**GAMW-42C-050323**	Water	05/03/23 11:00	05/04/23 09:25
50343918002	**GAMW-43-050323**	Water	05/03/23 13:00	05/04/23 09:25
50343918003	**GAMW-43B-050323**	Water	05/03/23 14:25	05/04/23 09:25
50343918004	**FD-05-050323**	Water	05/03/23 12:00	05/04/23 09:25
50344059001	**GAMW-44-050423**	Water	05/04/23 11:05	05/05/23 08:50
50344059002	**GAMW-44B-050423**	Water	05/04/23 12:25	05/05/23 08:50
50344059003	**GAMW-57-050423**	Water	05/04/23 13:55	05/05/23 08:50
50344059004	**FB-05-050423**	Water	05/04/23 14:10	05/05/23 08:50
50344195001	**GAMW-57B-050523**	Water	05/05/23 10:15	05/06/23 09:15
50344195002	**GAMW-58-050523**	Water	05/05/23 11:50	05/06/23 09:15
50344195003	**GAMW-58B-050523**	Water	05/05/23 13:10	05/06/23 09:15

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50343389001	GAMW-46-042723	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343389002	GAMW-46B-042723	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343750001	GAMW-42-050223	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343750002	GAMW-42B-050223	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343918001	GAMW-42C-050323	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343918002	GAMW-43-050323	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343918003	GAMW-43B-050323	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50343918004	FD-05-050323	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50344059001	GAMW-44-050423	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50344059002	GAMW-44B-050423	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50344059003	GAMW-57-050423	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50344059004	FB-05-050423	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50344195001	GAMW-57B-050523	EPA 903.1	JLJ	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50344195002	**GAMW-58-050523**	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50344195003	**GAMW-58B-050523**	EPA 903.1	JLJ	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343389001	**GAMW-46-042723**					
EPA 903.1	Radium-226	-0.0552 ± 0.324 (0.723) C:NA T:92%	pCi/L		05/19/23 14:24	
EPA 904.0	Radium-228	-0.359 ± 0.389 (0.953) C:79% T:87%	pCi/L		05/12/23 15:55	
Total Radium Calculation	Total Radium	0.000 ± 0.713 (1.68)	pCi/L		05/22/23 12:37	
50343389002	**GAMW-46B-042723**					
EPA 903.1	Radium-226	-0.0629 ± 0.565 (1.14) C:NA T:90%	pCi/L		05/19/23 14:24	
EPA 904.0	Radium-228	0.503 ± 0.443 (0.903) C:77% T:85%	pCi/L		05/12/23 15:55	
Total Radium Calculation	Total Radium	0.503 ± 1.01 (2.04)	pCi/L		05/22/23 12:37	
50343750001	**GAMW-42-050223**					
EPA 903.1	Radium-226	-0.0465 ± 0.376 (0.775) C:NA T:95%	pCi/L		06/02/23 15:42	
EPA 904.0	Radium-228	0.167 ± 0.336 (0.740) C:81% T:84%	pCi/L		05/24/23 15:06	
Total Radium Calculation	Total Radium	0.167 ± 0.712 (1.52)	pCi/L		06/05/23 17:37	
50343750002	**GAMW-42B-050223**					
EPA 903.1	Radium-226	0.593 ± 0.441 (0.580) C:NA T:97%	pCi/L		06/02/23 15:42	
EPA 904.0	Radium-228	0.386 ± 0.359 (0.727) C:80% T:82%	pCi/L		05/24/23 15:06	
Total Radium Calculation	Total Radium	0.979 ± 0.800 (1.31)	pCi/L		06/05/23 17:37	

REPORT OF LABORATORY ANALYSIS

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(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50343918001	**GAMW-42C-050323**					
EPA 903.1	Radium-226	1.10 ± 0.565 (0.696) C:NA T:94%	pCi/L		06/05/23 13:27	
EPA 904.0	Radium-228	0.595 ± 0.356 (0.671) C:86% T:93%	pCi/L		05/23/23 11:54	
Total Radium Calculation	Total Radium	1.70 ± 0.921 (1.37)	pCi/L		06/05/23 16:13	
50343918002	**GAMW-43-050323**					
EPA 903.1	Radium-226	-0.0453 ± 0.295 (0.639) C:NA T:94%	pCi/L		06/05/23 13:47	
EPA 904.0	Radium-228	0.0615 ± 0.326 (0.742) C:86% T:81%	pCi/L		05/23/23 11:54	
Total Radium Calculation	Total Radium	0.0615 ± 0.621 (1.38)	pCi/L		06/05/23 16:13	
50343918003	**GAMW-43B-050323**					
EPA 903.1	Radium-226	0.000 ± 0.281 (0.608) C:NA T:91%	pCi/L		06/05/23 13:47	
EPA 904.0	Radium-228	0.552 ± 0.359 (0.689) C:88% T:88%	pCi/L		05/23/23 11:54	
Total Radium Calculation	Total Radium	0.552 ± 0.640 (1.30)	pCi/L		06/05/23 16:13	
50343918004	**FD-05-050323**					
EPA 903.1	Radium-226	-0.134 ± 0.264 (0.632) C:NA T:93%	pCi/L		06/05/23 13:47	
EPA 904.0	Radium-228	0.0621 ± 0.377 (0.855) C:86% T:84%	pCi/L		05/23/23 11:54	
Total Radium Calculation	Total Radium	0.0621 ± 0.641 (1.49)	pCi/L		06/05/23 16:13	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50344059001	**GAMW-44-050423**					
EPA 903.1	Radium-226	0.200 ± 0.392 (0.716) C:NA T:98%	pCi/L		05/24/23 14:26	
EPA 904.0	Radium-228	0.703 ± 0.369 (0.631) C:80% T:83%	pCi/L		05/22/23 12:07	
Total Radium Calculation	Total Radium	0.903 ± 0.761 (1.35)	pCi/L		06/05/23 17:55	
50344059002	**GAMW-44B-050423**					
EPA 903.1	Radium-226	-0.812 ± 0.568 (1.44) C:NA T:96%	pCi/L		05/24/23 14:26	
EPA 904.0	Radium-228	0.359 ± 0.340 (0.692) C:77% T:91%	pCi/L		05/22/23 12:07	
Total Radium Calculation	Total Radium	0.359 ± 0.908 (2.13)	pCi/L		06/05/23 17:55	
50344059003	**GAMW-57-050423**					
EPA 903.1	Radium-226	0.556 ± 0.514 (0.748) C:NA T:92%	pCi/L		05/24/23 14:26	
EPA 904.0	Radium-228	-0.231 ± 0.345 (0.859) C:82% T:73%	pCi/L		05/22/23 12:07	
Total Radium Calculation	Total Radium	0.556 ± 0.859 (1.61)	pCi/L		06/05/23 17:55	
50344059004	**FB-05-050423**					
EPA 903.1	Radium-226	0.191 ± 0.331 (0.592) C:NA T:92%	pCi/L		05/24/23 14:38	
EPA 904.0	Radium-228	0.145 ± 0.323 (0.716) C:83% T:86%	pCi/L		05/22/23 12:07	
Total Radium Calculation	Total Radium	0.336 ± 0.654 (1.31)	pCi/L		06/05/23 17:55	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50344195001	**GAMW-57B-050523**					
EPA 903.1	Radium-226	0.0435 ± 0.307 (0.613) C:NA T:92%	pCi/L		06/13/23 14:28	
EPA 904.0	Radium-228	0.188 ± 0.357 (0.784) C:77% T:92%	pCi/L		05/31/23 15:20	
Total Radium Calculation	Total Radium	0.232 ± 0.664 (1.40)	pCi/L		06/13/23 15:31	
50344195002	**GAMW-58-050523**					
EPA 903.1	Radium-226	-0.0963 ± 0.267 (0.631) C:NA T:88%	pCi/L		06/13/23 14:28	
EPA 904.0	Radium-228	0.482 ± 0.375 (0.745) C:83% T:88%	pCi/L		05/31/23 15:18	
Total Radium Calculation	Total Radium	0.482 ± 0.642 (1.38)	pCi/L		06/13/23 15:31	
50344195003	**GAMW-58B-050523**					
EPA 903.1	Radium-226	0.000 ± 0.356 (0.740) C:NA T:85%	pCi/L		06/13/23 14:28	
EPA 904.0	Radium-228	-0.288 ± 0.312 (0.783) C:78% T:85%	pCi/L		05/31/23 14:54	
Total Radium Calculation	Total Radium	0.000 ± 0.668 (1.52)	pCi/L		06/13/23 15:31	

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: NiSource_WSP Golder
Date: June 19, 2023

General Information:
15 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: NiSource_WSP Golder
Date: June 19, 2023

General Information:
15 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: NiSource_WSP Golder
Date: June 19, 2023

General Information:
15 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-46-042723 **Lab ID: 50343389001** Collected: 04/27/23 12:25 Received: 04/28/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0552 ± 0.324 (0.723) C:NA T:92%**	pCi/L	05/19/23 14:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.359 ± 0.389 (0.953) C:79% T:87%**	pCi/L	05/12/23 15:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.000 ± 0.713 (1.68)**	pCi/L	05/22/23 12:37	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-46B-042723 **Lab ID: 50343389002** Collected: 04/27/23 13:55 Received: 04/28/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0629 ± 0.565 (1.14) C:NA T:90%**	pCi/L	05/19/23 14:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.503 ± 0.443 (0.903) C:77% T:85%**	pCi/L	05/12/23 15:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.503 ± 1.01 (2.04)**	pCi/L	05/22/23 12:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-42-050223 **Lab ID: 50343750001** Collected: 05/02/23 10:35 Received: 05/03/23 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0465 ± 0.376 (0.775) C:NA T:95%**	pCi/L	06/02/23 15:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.167 ± 0.336 (0.740) C:81% T:84%**	pCi/L	05/24/23 15:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.167 ± 0.712 (1.52)**	pCi/L	06/05/23 17:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-42B-050223 **Lab ID: 50343750002** Collected: 05/02/23 12:50 Received: 05/03/23 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.593 ± 0.441 (0.580) C:NA T:97%**	pCi/L	06/02/23 15:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.386 ± 0.359 (0.727) C:80% T:82%**	pCi/L	05/24/23 15:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.979 ± 0.800 (1.31)**	pCi/L	06/05/23 17:37	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-42C-050323 **Lab ID: 50343918001** Collected: 05/03/23 11:00 Received: 05/04/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.10 ± 0.565 (0.696) C:NA T:94%**	pCi/L	06/05/23 13:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.595 ± 0.356 (0.671) C:86% T:93%**	pCi/L	05/23/23 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.70 ± 0.921 (1.37)**	pCi/L	06/05/23 16:13	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-43-050323 **Lab ID: 50343918002** Collected: 05/03/23 13:00 Received: 05/04/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0453 ± 0.295 (0.639) C:NA T:94%**	pCi/L	06/05/23 13:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0615 ± 0.326 (0.742) C:86% T:81%**	pCi/L	05/23/23 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0615 ± 0.621 (1.38)**	pCi/L	06/05/23 16:13	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-43B-050323 **Lab ID: 50343918003** Collected: 05/03/23 14:25 Received: 05/04/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.281 (0.608) C:NA T:91%**	pCi/L	06/05/23 13:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.552 ± 0.359 (0.689) C:88% T:88%**	pCi/L	05/23/23 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.552 ± 0.640 (1.30)**	pCi/L	06/05/23 16:13	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: FD-05-050323 **Lab ID: 50343918004** Collected: 05/03/23 12:00 Received: 05/04/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.134 ± 0.264 (0.632) C:NA T:93%**	pCi/L	06/05/23 13:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0621 ± 0.377 (0.855) C:86% T:84%**	pCi/L	05/23/23 11:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0621 ± 0.641 (1.49)**	pCi/L	06/05/23 16:13	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-44-050423 **Lab ID: 50344059001** Collected: 05/04/23 11:05 Received: 05/05/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.200 ± 0.392 (0.716) C:NA T:98%**	pCi/L	05/24/23 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.703 ± 0.369 (0.631) C:80% T:83%**	pCi/L	05/22/23 12:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.903 ± 0.761 (1.35)**	pCi/L	06/05/23 17:55	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-44B-050423 **Lab ID: 50344059002** Collected: 05/04/23 12:25 Received: 05/05/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.812 ± 0.568 (1.44) C:NA T:96%**	pCi/L	05/24/23 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.359 ± 0.340 (0.692) C:77% T:91%**	pCi/L	05/22/23 12:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.359 ± 0.908 (2.13)**	pCi/L	06/05/23 17:55	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-57-050423 **Lab ID: 50344059003** Collected: 05/04/23 13:55 Received: 05/05/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.556 ± 0.514 (0.748) C:NA T:92%**	pCi/L	05/24/23 14:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.231 ± 0.345 (0.859) C:82% T:73%**	pCi/L	05/22/23 12:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.556 ± 0.859 (1.61)**	pCi/L	06/05/23 17:55	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: FB-05-050423 **Lab ID: 50344059004** Collected: 05/04/23 14:10 Received: 05/05/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.191 ± 0.331 (0.592) C:NA T:92%**	pCi/L	05/24/23 14:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.145 ± 0.323 (0.716) C:83% T:86%**	pCi/L	05/22/23 12:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.336 ± 0.654 (1.31)**	pCi/L	06/05/23 17:55	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-57B-050523 **Lab ID: 50344195001** Collected: 05/05/23 10:15 Received: 05/06/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0435 ± 0.307 (0.613) C:NA T:92%**	pCi/L	06/13/23 14:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.188 ± 0.357 (0.784) C:77% T:92%**	pCi/L	05/31/23 15:20	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.232 ± 0.664 (1.40)**	pCi/L	06/13/23 15:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-58-050523 **Lab ID: 50344195002** Collected: 05/05/23 11:50 Received: 05/06/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0963 ± 0.267 (0.631) C:NA T:88%**	pCi/L	06/13/23 14:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.482 ± 0.375 (0.745) C:83% T:88%**	pCi/L	05/31/23 15:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.482 ± 0.642 (1.38)**	pCi/L	06/13/23 15:31	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Sample: GAMW-58B-050523 **Lab ID: 50344195003** Collected: 05/05/23 13:10 Received: 05/06/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.356 (0.740) C:NA T:85%**	pCi/L	06/13/23 14:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.288 ± 0.312 (0.783) C:78% T:85%**	pCi/L	05/31/23 14:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.000 ± 0.668 (1.52)**	pCi/L	06/13/23 15:31	7440-14-4	

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 586661
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343918001, 50343918002, 50343918003, 50343918004

METHOD BLANK: 2849958 Matrix: Water
Associated Lab Samples: 50343918001, 50343918002, 50343918003, 50343918004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0765 ± 0.212 (0.412) C:NA T:96%	pCi/L	06/05/23 13:27	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 586662
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343918001, 50343918002, 50343918003, 50343918004

METHOD BLANK: 2849962 Matrix: Water
Associated Lab Samples: 50343918001, 50343918002, 50343918003, 50343918004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.537 ± 0.299 (0.526) C:83% T:93%	pCi/L	05/23/23 11:58	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 588031
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50344059001, 50344059002, 50344059003, 50344059004

METHOD BLANK: 2857356 Matrix: Water
Associated Lab Samples: 50344059001, 50344059002, 50344059003, 50344059004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0233 ± 0.290 (0.676) C:81% T:87%	pCi/L	05/22/23 12:05	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 585857
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343389001, 50343389002

METHOD BLANK: 2845633
Matrix: Water
Associated Lab Samples: 50343389001, 50343389002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0964 ± 0.220 (0.131) C:NA T:86%	pCi/L	05/19/23 14:12	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 588457
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50344195001, 50344195002, 50344195003

METHOD BLANK: 2859398
Matrix: Water
Associated Lab Samples: 50344195001, 50344195002, 50344195003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0472 ± 0.216 (0.438) C:NA T:90%	pCi/L	06/13/23 14:05	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 588458
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50344195001, 50344195002, 50344195003

METHOD BLANK: 2859400 Matrix: Water
Associated Lab Samples: 50344195001, 50344195002, 50344195003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.643 ± 0.344 (0.604) C:83% T:90%	pCi/L	05/31/23 15:19	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 588030
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50344059001, 50344059002, 50344059003, 50344059004

METHOD BLANK: 2857355 Matrix: Water
Associated Lab Samples: 50344059001, 50344059002, 50344059003, 50344059004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.271 ± 0.249 (0.147) C:NA T:88%	pCi/L	05/24/23 13:51	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 587441
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343750001, 50343750002

METHOD BLANK: 2854009
Matrix: Water
Associated Lab Samples: 50343750001, 50343750002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.120 ± 0.285 (0.695) C:85% T:86%	pCi/L	05/24/23 15:06	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 585859
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343389001, 50343389002

METHOD BLANK: 2845642
Matrix: Water
Associated Lab Samples: 50343389001, 50343389002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.159 ± 0.298 (0.655) C:87% T:85%	pCi/L	05/12/23 15:53	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

QC Batch: 587440
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50343750001, 50343750002

METHOD BLANK: 2854006
Matrix: Water
Associated Lab Samples: 50343750001, 50343750002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.116 ± 0.227 (0.416) C:NA T:97%	pCi/L	06/02/23 15:42	

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QUALIFIERS

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50343389001	**GAMW-46-042723**	EPA 903.1	585857		
50343389002	**GAMW-46B-042723**	EPA 903.1	585857		
50343750001	**GAMW-42-050223**	EPA 903.1	587440		
50343750002	**GAMW-42B-050223**	EPA 903.1	587440		
50343918001	**GAMW-42C-050323**	EPA 903.1	586661		
50343918002	**GAMW-43-050323**	EPA 903.1	586661		
50343918003	**GAMW-43B-050323**	EPA 903.1	586661		
50343918004	**FD-05-050323**	EPA 903.1	586661		
50344059001	**GAMW-44-050423**	EPA 903.1	588030		
50344059002	**GAMW-44B-050423**	EPA 903.1	588030		
50344059003	**GAMW-57-050423**	EPA 903.1	588030		
50344059004	**FB-05-050423**	EPA 903.1	588030		
50344195001	**GAMW-57B-050523**	EPA 903.1	588457		
50344195002	**GAMW-58-050523**	EPA 903.1	588457		
50344195003	**GAMW-58B-050523**	EPA 903.1	588457		
50343389001	**GAMW-46-042723**	EPA 904.0	585859		
50343389002	**GAMW-46B-042723**	EPA 904.0	585859		
50343750001	**GAMW-42-050223**	EPA 904.0	587441		
50343750002	**GAMW-42B-050223**	EPA 904.0	587441		
50343918001	**GAMW-42C-050323**	EPA 904.0	586662		
50343918002	**GAMW-43-050323**	EPA 904.0	586662		
50343918003	**GAMW-43B-050323**	EPA 904.0	586662		
50343918004	**FD-05-050323**	EPA 904.0	586662		
50344059001	**GAMW-44-050423**	EPA 904.0	588031		
50344059002	**GAMW-44B-050423**	EPA 904.0	588031		
50344059003	**GAMW-57-050423**	EPA 904.0	588031		
50344059004	**FB-05-050423**	EPA 904.0	588031		
50344195001	**GAMW-57B-050523**	EPA 904.0	588458		
50344195002	**GAMW-58-050523**	EPA 904.0	588458		
50344195003	**GAMW-58B-050523**	EPA 904.0	588458		
50343389001	**GAMW-46-042723**	Total Radium Calculation	589741		
50343389002	**GAMW-46B-042723**	Total Radium Calculation	589741		
50343750001	**GAMW-42-050223**	Total Radium Calculation	592784		
50343750002	**GAMW-42B-050223**	Total Radium Calculation	592784		
50343918001	**GAMW-42C-050323**	Total Radium Calculation	592769		
50343918002	**GAMW-43-050323**	Total Radium Calculation	592769		
50343918003	**GAMW-43B-050323**	Total Radium Calculation	592769		
50343918004	**FD-05-050323**	Total Radium Calculation	592769		
50344059001	**GAMW-44-050423**	Total Radium Calculation	592786		
50344059002	**GAMW-44B-050423**	Total Radium Calculation	592786		
50344059003	**GAMW-57-050423**	Total Radium Calculation	592786		
50344059004	**FB-05-050423**	Total Radium Calculation	592786		

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(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment Apr23
Pace Project No.: 50343389

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50344195001	**GAMW-57B-050523**	Total Radium Calculation	594605		
50344195002	**GAMW-58-050523**	Total Radium Calculation	594605		
50344195003	**GAMW-58B-050523**	Total Radium Calculation	594605		

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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50343389

50343389

Section A – Required Client Information:	Section B – Required Project Information:	Section C – Invoice Information:
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO
Merrillville, IN 46410	Sarah Gilles	Address:
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3

Regulatory Agency: —

State / Location: IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)
37	[redacted]	WT																	X	
38	[redacted]	WT																	X	
39	[redacted]	WT																	X	
40	GAMW-46 – 042723	WT	G			4/27/23	1225		2			2							X	001
41	GAMW-46B – 042723	WT	G			4/27/23	1355		2			2							X	002
42	[redacted]	WT																	X	
43	[redacted]	WT																	X	
44	[redacted]	WT																	X	
45	[redacted]	WT																	X	
46	[redacted]	WT																	X	
47	[redacted]	WT																	X	
48	[redacted]	WT																	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	4/27/23	1600							
		4/28	0900		4/28	0850	0.7	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GUZMAN

SIGNATURE of SAMPLER: [signature]

DATE Signed: 4/27/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 04/28/23 1000 EMC

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 0/0.7 | | | |

(Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	MeOH (only) / SBS / DI / R	VIALS: DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1																												
2																												
3																												
4																2												WW
5																1												WW
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50343265

50343265

Section A – Required Client Information:	Section B – Required Project Information:	Section C – Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	Regulatory Agency
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 3140478 9. 011	Pace Profile #: 9045-3	IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
37	[redacted]	WT																	X		
38	[redacted]	WT																	X		
39	[redacted]	WT																	X		
40	[redacted]	WT																	X		
41	[redacted]	WT																	X		
42	[redacted]	WT																	X		
43	[redacted]	WT																	X		
44	[redacted]	WT																	X		
45	[redacted]	WT																	X		
46	GAMW-54 – 042623	WT	G			4/24/23	1005		2			2							X		001
47	GAMW-54B – 042623	WT	G			4/24/23	1120		2			2							X		002
48	GAMW-55R – 042623	WT	G			4/24/23	1235		2			2							X		003

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	4/26/23	1600	FE						
	FE	4/27/23	0855		4/27/23	0855	Dry Ice	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R GUZMAN

SIGNATURE of SAMPLER: [signature]

DATE Signed: 4/26/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DD 4/27/23 1127

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 1.9/1.7 | 2.0/1.8 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS						AMBER GLASS							PLASTIC										OTHER								
		MeOH (only)																															
		SBS																															
		DI																															
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																	
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																2												WT					
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must

WO# : 50343266

50343266

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency: | State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)
49	GAMW-55B -042623	WT				4/24/23	1355		2			2							X	
50	[redacted]	WT																	X	
51	[redacted]	WT																	X	
52	[redacted]	WT																	X	
53	[redacted]	WT																	X	
54	[redacted]	WT																	X	
55	[redacted]	WT																	X	
56	[redacted]	WT																	X	
57	[redacted]	WT																	X	
58	[redacted]	WT																	X	
59	FB-03 - 042623	WT	G			4/24/23	1130		2			2							X	
60	[redacted]	WT																	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	[signature] WSP	4/24/23	1600	[signature]						
	[signature]	4/25/23	0855	[signature]	4/25/23	0855	4.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [signature]

SIGNATURE of SAMPLER: [signature] DATE Signed: 4/26/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DD 4/27/23 1127

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 1.9/1.7 | 2.0/1.8 | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																												Red	Yellow	Green	Black
		DI																															
COC Line Item	WGFU	R	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																	2												WT				
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																	2												WT				
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b

WO# : 50343750

50343750

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	314047B9.011	Pace Profile #:	9045-3

Regulatory Agency:

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
13	GAMW-42 - 050223	WT	G			5/2/23	1035		2			2							X		001
14	GAMW-42B - 050223	WT	G			5/2/23	1250		2			2							X		002
15	[redacted]	WT																	X		
16	[redacted]	WT																	X		
17	[redacted]	WT																	X		
18	[redacted]	WT																	X		
19	[redacted]	WT																	X		
20	[redacted]	WT																	X		
21	[redacted]	WT																	X		
22	[redacted]	WT																	X		
23	[redacted]	WT																	X		
24	[redacted]	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	[signature] / WSP	5/2/23	1530	Fedex						
	FedEx	5/3/23	0930	[signature]	5/3/23	0930	1.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [signature]

SIGNATURE of SAMPLER: [signature] DATE Signed: 5/2/23

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/3/23 1430 IL

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 1.0/1.0 | | | |
   (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	IL 5/3		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** IL 5/3 IL 5/3 Any non-conformance to pH recommendations will be noted on the container count form			✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS						AMBER GLASS							PLASTIC										OTHER							
		MeOH (only)																														
		SBS																														
		DI																														
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2												2				
2																												2				
3																																
4																																
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Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
3G1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
3G1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields r

WO# : 50343918

50343918

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.01	Pace Profile #:	9045-3

Regulatory Agency	
State / Location	
	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
13	[redacted]	WT																	X		
14	GAMW-42B	WT																	X		
15	GAMW-42C -050823	WT	G			5/3/23	1100		2			2							X		UU1
16	GAMW-43 -050323	WT	G			5/3/23	1300		2			2							X		UU2
17	GAMW-43B -050323	WT	G			5/3/23	1425		2			2							X		UU3
18	[redacted]	WT																	X		
19	GAMW-44B	WT																	X		
20	GAMW-51	WT																	X		
21	[redacted]	WT																	X		
22	GAMW-57	WT																	X		
23	[redacted]	WT																	X		
24	GAMW-60	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	5/3/23	1630	FEDEX						
	FEDEX	5/4/23	0925		5/4/23	0925	1.8	Y	Y	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:			
SIGNATURE of SAMPLER:		DATE Signed:	5/3/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency:

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analytes Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)	
61	[redacted] FD-05-050323	WT				5/3/23	1200		2			2							X		004
62	[redacted]																				
63	[redacted]																				
64	[redacted]																				
65	[redacted]																				
66	[redacted]																				
67	[redacted]																				
68	[redacted]																				
69	[redacted]																				
70	[redacted]																				
71	[redacted]																				
72	[redacted]																				

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace PA	[redacted] WSP	5/3/23	1630	FEDEX						
	FEDEX	5/4/23	0825	[redacted]	5/4/23	0925	1.8	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. ANZMAN

SIGNATURE of SAMPLER: [redacted]

DATE Signed: 5/3/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: MTV 5/4/23 1230

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 1.8/1.8 | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:		✓	

COMMENTS:

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS						AMBER GLASS							PLASTIC										OTHER								
		MeOH (only)																															
		SBS																															
		DI																															
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																																	
2																																	
3																2												45					
4																1												1					
5																1												1					
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			VIALS						AMBER GLASS							PLASTIC										OTHER							
		MeOH (only)																														
		SBS																														
		DI																														
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2												5T				
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b

WO# : 50344059

50344059

Section A – Required Client Information:	Section B – Required Project Information:	Section C – Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	Regulatory Agency
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Radium 226+228(sum)	Residual Chlorine (Y/N)
13	[redacted]	WT																	X	
14	[redacted]	WT																	X	
15	[redacted]	WT																	X	
16	[redacted]	WT																	X	
17	[redacted]	WT																	X	
18	GAMW-44 – 050423	WT	G			5/4/23	1105		2			2							X	
19	GAMW-44B – 050423	WT	G			5/4/23	1225		2			2							X	
20	[redacted]	WT																	X	
21	[redacted]	WT																	X	
22	GAMW-57 – 050423	WT	G			5/4/23	1355		2			2							X	
23	[redacted]	WT																	X	
24	[redacted]	WT																	X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	5/4/23	1630	Fedex						
	Fedex	5/5/23	0850		5/5/23	0850	3.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 5/4/23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency: —

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)	
61	FB-05 – 050423	WT	G			5/4/23	1410		2			2							X		004
62																					
63																					
64																					
65																					
66																					
67																					
68																					
69																					
70																					
71																					
72																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace PA	WSP	5/4/23	1630	Fedex						
	Fedex	5/5/23	0850	DL	5/5/23	0850	3.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GILLMAN

SIGNATURE of SAMPLER: [signature] DATE Signed: 5/4/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.22, 22Apr2022

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/5/23 1040 IL

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 3.0/3.0 | | | |
   (Initial/Corrected) **RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)**
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS					AMBER GLASS							PLASTIC										OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																													Red	Yellow	Green	Black
		DI																																
COC Line Item	WGFU	R	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix						
																															HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																																		
2																																		
3																																		
4																																		
5																																		
6																	2												WT					
7																	↓												↓					
8																																		
9																																		
10																	2												WT					
11																																		
12																																		

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		VIALS						AMBER GLASS							PLASTIC									OTHER						Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		MeOH (only)																											Red	Yellow	Green	Black
		SBS																														
		DI																														
COC Line Item	WGFU	R	DG9H	VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																	2												SL				
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50344195

50344195

Analytical Request Document

OCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section Required		
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NIPSCO	Regulatory Agency
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment Apr23	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Radium 226+228(sum)	Residual Chlorine (Y/N)	
13	[redacted]	WT																	X		
14	[redacted]	WT																	X		
15	[redacted]	WT																	X		
[redacted]	[redacted]	WT																	X		
17	[redacted]	WT																	X		
18	[redacted]	WT																	X		
19	[redacted]	WT																	X		
20	[redacted]	WT																	X		
21	[redacted]	WT																	X		
22	[redacted]	WT																	X		
23	GAMW-57B – 050523	WT	G			5/5/23	1105		2			2							X		001
24	GAMW-58 – 050523	WT	G			5/5/23	1150		2			2							X		002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	5/5/23	1500	Fedex						
	Fedex			Marcus Wienhoff	5/6/23	0715	1.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [redacted]

SIGNATURE of SAMPLER: [redacted] DATE Signed: 5/5/23

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NIPSCO
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment Apr23	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency: —

State / Location: IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)	
25	GAMW-58B — 050523	WT	G			5/5/23	1310		2			2							X		003
26	[redacted]	WT																	X		
27	[redacted]	WT																	X		
28	[redacted]	WT																	X		
29	[redacted]	WT																	X		
30	[redacted]	WT																	X		
31	[redacted]	WT																	X		
32	[redacted]	WT																	X		
33	[redacted]	WT																	X		
34	[redacted]	WT																	X		
35	[redacted]	WT																	X		
36	[redacted]	WT																	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	5/5/23	1500	Fedex						
	Fedex			Marcus Winbush	5/6/23	0915	1.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 5/5/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/6/23 1351 -MW

1. **Courier:** ☐ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☐ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 A B C D E F
4. **Cooler Temperature(s):** 1.8 | 1.0 _____ _____ _____
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☐ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)	VIALS					AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
		SBS																											Red	Yellow	Green	Black
		DI																														
COC Line Item	WGFU	R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																																
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																2												WT				
12																↓												↓				

Container Codes

Glass

)G9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
)G9P	40mL TSP amber vial	BG1U	1L unpreserved glass
)G9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
)G9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
G9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
G9H	40mL HCl clear vial	AG1H	1L HCl amber glass
G9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
G9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
'GKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
'GFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
GFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
G3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
G3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
G1H	1L HCl clear glass	AG3U	250mL unpres amber glass
G1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a RED dot on containers that are out of conformance **

		MeOH (only)		VIALS						AMBER GLASS							PLASTIC									OTHER				Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black
COC Line Item	WGFU	SBS	DI	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U	DG9U	VG9T	AG0U	AG1H	AG1U	AG2U	AG3S	AG3SF	AG3C	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
		R																															
1																	2												ER				
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	BG3H	250mL HCl Clear Glass
DG9T	40mL Na Thio amber vial	BG3U	250mL Unpres Clear Glass
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass
1	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass
GFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass
G3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass
G3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered
G1H	1L HCl clear glass	AG3U	250mL unpres amber glass
G1S	1L H2SO4 clear glass	AG3C	250mL NaOH amber glass

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

APPENDIX D

September/October 2023 Analytical Laboratory Reports

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

November 17, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Assessment
Pace Project No.: 50353874

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory between September 14, 2023 and October 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

Revised report replaces report dated 10/17/23. ID for 50354261005 corrected per COC. 11/17/23tms

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3127
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RMSGS Assessment
Pace Project No.: 50353874

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50353874001	**GAMW-01-091323**	Water	09/13/23 13:35	09/14/23 09:15
50353874002	**GAMW-01B-091323**	Water	09/13/23 14:30	09/14/23 09:15
50353997001	**GAMW-14-091423**	Water	09/14/23 10:05	09/15/23 09:05
50353997002	**GAMW-14B-091423**	Water	09/14/23 11:05	09/15/23 09:05
50353997003	**GAMW-13-091423**	Water	09/14/23 12:10	09/15/23 09:05
50353997004	**GAMW-13B-091423**	Water	09/14/23 13:25	09/15/23 09:05
50354089001	**GAMW-12-091523**	Water	09/15/23 10:15	09/16/23 09:05
50354089002	**GAMW-12B-091523**	Water	09/15/23 11:00	09/16/23 09:05
50354089003	**GAMW-03-091523**	Water	09/15/23 12:10	09/16/23 09:05
50354089004	**GAMW-03B-091523**	Water	09/15/23 14:25	09/16/23 09:05
50354175001	**GAMW-51-091823**	Water	09/18/23 14:15	09/19/23 09:05
50354261001	**GAMW-51B-091923**	Water	09/19/23 11:05	09/20/23 09:20
50354261002	**GAMW-08-091923**	Water	09/19/23 12:40	09/20/23 09:20
50354261003	**GAMW-08B-091923**	Water	09/19/23 13:55	09/20/23 09:20
50354261004	**FD-03-091923**	Water	09/19/23 12:00	09/20/23 09:20
50354261005	**FB-04-091923**	Water	09/19/23 14:10	09/20/23 09:20
50354261006	**GAMW-60-091923**	Water	09/19/23 11:05	09/20/23 09:20
50354261007	**GAMW-60B-091923**	Water	09/19/23 12:20	09/20/23 09:20
50354261008	**GAMW-59-091923**	Water	09/19/23 13:20	09/20/23 09:20
50354383001	**GAMW-16R-092023**	Water	09/20/23 10:45	09/21/23 09:20
50354383002	**GAMW-16BR-092023**	Water	09/20/23 12:10	09/21/23 09:20
50354383003	**GAMW-59B-092023**	Water	09/20/23 11:45	09/21/23 09:20
50354383004	**GAMW-17-092023**	Water	09/20/23 13:10	09/21/23 09:20
50354467001	**GAMW-09-092123**	Water	09/21/23 10:55	09/22/23 09:25
50354467002	**GAMW-09B-092123**	Water	09/21/23 12:05	09/22/23 09:25
50354467003	**GAMW-18-092123**	Water	09/21/23 13:30	09/22/23 09:25
50354467004	**FB-03-092123**	Water	09/21/23 10:55	09/22/23 09:25
50354467005	**FD-04-092123**	Water	09/21/23 12:00	09/22/23 09:25
50354592001	**GAMW-18B-092223**	Water	09/22/23 10:40	09/23/23 09:05
50354592002	**GAMW-56-092223**	Water	09/22/23 12:00	09/23/23 09:05
50354592003	**FD-05-092223**	Water	09/22/23 12:00	09/23/23 09:05
50354669001	**GAMW-54-092523**	Water	09/25/23 11:05	09/26/23 09:15
50354669002	**GAMW-54B-092523**	Water	09/25/23 12:45	09/26/23 09:15
50354669003	**FB-05-092523**	Water	09/25/23 13:20	09/26/23 09:15
50354669004	**GAMW-56B-092523**	Water	09/25/23 10:35	09/26/23 09:15
50354669005	**GAMW-52-092523**	Water	09/25/23 11:40	09/26/23 09:15
50354669006	**GAMW-52B-092523**	Water	09/25/23 13:05	09/26/23 09:15

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SAMPLE SUMMARY

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50355025001	**GAMW-53-092823**	Water	09/28/23 11:15	09/29/23 09:25
50355025002	**GAMW-53B-092823**	Water	09/28/23 12:05	09/29/23 09:25
50355129001	**GAMW-55R-092923**	Water	09/29/23 11:20	09/30/23 09:15
50355129002	**GAMW-55B-092923**	Water	09/29/23 12:50	09/30/23 09:15
50355221001	**GAMW-17B-100223**	Water	10/02/23 11:05	10/03/23 08:50
50355221002	**GAMW-68-100223**	Water	10/02/23 13:05	10/03/23 08:50
50355221003	**GAMW-68B-100223**	Water	10/02/23 14:35	10/03/23 08:50
50355221004	**FD-06-100223**	Water	10/02/23 12:00	10/03/23 08:50
50355221005	**FB-06-100224**	Water	10/02/23 14:40	10/03/23 08:50

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50353874001	**GAMW-01-091323**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50353874002	**GAMW-01B-091323**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50353997001	**GAMW-14-091423**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50353997002	**GAMW-14B-091423**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50353997003	**GAMW-13-091423**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50353997004	**GAMW-13B-091423**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354089001	**GAMW-12-091523**	EPA 9056	ADM	3	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	JPK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354089002	**GAMW-12B-091523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354089003	**GAMW-03-091523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354089004	**GAMW-03B-091523**	EPA 9056	ADM	3	PASI-I
		EPA 6010	JPK	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354175001	**GAMW-51-091823**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354261001	**GAMW-51B-091923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354261002	**GAMW-08-091923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354261003	**GAMW-08B-091923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354261004	**FD-03-091923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354261005	**FB-04-091923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50354261006	**GAMW-60-091923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50354261007	**GAMW-60B-091923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50354261008	**GAMW-59-091923**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50354383001	**GAMW-16R-092023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50354383002	**GAMW-16BR-092023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50354383003	**GAMW-59B-092023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50354383004	**GAMW-17-092023**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50354467001	**GAMW-09-092123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354467002	**GAMW-09B-092123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354467003	**GAMW-18-092123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354467004	**FB-03-092123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354467005	**FD-04-092123**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354592001	**GAMW-18B-092223**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354592002	**GAMW-56-092223**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354592003	**FD-05-092223**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-H+B	LHZ	1	PASI-I
50354669001	**GAMW-54-092523**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354669002	**GAMW-54B-092523**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354669003	**FB-05-092523**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354669004	**GAMW-56B-092523**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354669005	**GAMW-52-092523**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50354669006	**GAMW-52B-092523**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	AEL	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50355025001	**GAMW-53-092823**	EPA 9056	ADM	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50355025002	**GAMW-53B-092823**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	BMS	1	PASI-I
50355129001	**GAMW-55R-092923**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355129002	**GAMW-55B-092923**	EPA 9056	KBB	3	PASI-I
		EPA 6010	ELK	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355221001	**GAMW-17B-100223**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355221002	**GAMW-68-100223**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355221003	**GAMW-68B-100223**	EPA 9056	ADM	3	PASI-I

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355221004	**FD-06-100223**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355221005	**FB-06-100224**	EPA 9056	ADM	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50353874001	**GAMW-01-091323**					
EPA 9056	Chloride	15.5	mg/L	0.25	09/16/23 20:18	
EPA 9056	Fluoride	0.32	mg/L	0.050	09/16/23 20:18	
EPA 9056	Sulfate	127	mg/L	2.5	09/16/23 20:35	
EPA 6010	Boron	1.1	mg/L	0.10	09/23/23 11:25	
EPA 6010	Calcium	95.2	mg/L	1.0	09/23/23 11:25	
EPA 6010	Lithium	0.0053J	mg/L	0.020	09/23/23 11:25	
EPA 6020	Arsenic	0.012	mg/L	0.0010	09/25/23 11:57	
EPA 6020	Barium	0.058	mg/L	0.0010	09/25/23 11:57	
EPA 6020	Chromium	0.00078J	mg/L	0.0020	09/25/23 11:57	
EPA 6020	Cobalt	0.0017	mg/L	0.0010	09/25/23 11:57	
EPA 6020	Lead	0.000038J	mg/L	0.0010	09/25/23 11:57	
EPA 6020	Molybdenum	0.012	mg/L	0.0010	09/25/23 11:57	
EPA 6020	Selenium	0.0043	mg/L	0.0010	09/25/23 11:57	
EPA 6020	Thallium	0.000098J	mg/L	0.0010	09/25/23 11:57	
SM 2540C	Total Dissolved Solids	441	mg/L	10.0	09/19/23 12:38	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	09/26/23 19:16	H3
50353874002	**GAMW-01B-091323**					
EPA 9056	Chloride	20.7	mg/L	0.25	09/16/23 20:53	
EPA 9056	Fluoride	0.14	mg/L	0.050	09/16/23 20:53	
EPA 9056	Sulfate	68.2	mg/L	2.5	09/16/23 21:10	
EPA 6010	Boron	0.35	mg/L	0.10	09/23/23 11:27	
EPA 6010	Calcium	113	mg/L	1.0	09/23/23 11:27	
EPA 6010	Lithium	0.0082J	mg/L	0.020	09/23/23 11:27	
EPA 6020	Arsenic	0.00034J	mg/L	0.0010	09/25/23 12:00	
EPA 6020	Barium	0.18	mg/L	0.0010	09/25/23 12:00	
EPA 6020	Chromium	0.00070J	mg/L	0.0020	09/25/23 12:00	
EPA 6020	Cobalt	0.00024J	mg/L	0.0010	09/25/23 12:00	
EPA 6020	Lead	0.000064J	mg/L	0.0010	09/25/23 12:00	
EPA 6020	Molybdenum	0.0011	mg/L	0.0010	09/25/23 12:00	
EPA 6020	Selenium	0.00035J	mg/L	0.0010	09/25/23 12:00	
SM 2540C	Total Dissolved Solids	456	mg/L	10.0	09/19/23 12:38	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	09/26/23 19:17	H3
50353997001	**GAMW-14-091423**					
EPA 9056	Chloride	7.9	mg/L	0.25	09/17/23 07:07	
EPA 9056	Fluoride	0.14	mg/L	0.050	09/17/23 07:07	
EPA 9056	Sulfate	24.1	mg/L	0.25	09/17/23 07:07	
EPA 6010	Boron	0.16	mg/L	0.10	09/23/23 01:13	
EPA 6010	Calcium	81.0	mg/L	1.0	09/23/23 01:13	
EPA 6020	Arsenic	0.014	mg/L	0.0010	09/25/23 12:03	
EPA 6020	Barium	0.051	mg/L	0.0010	09/25/23 12:03	
EPA 6020	Chromium	0.00083J	mg/L	0.0020	09/25/23 12:03	
EPA 6020	Cobalt	0.016	mg/L	0.0010	09/25/23 12:03	
EPA 6020	Lead	0.000067J	mg/L	0.0010	09/25/23 12:03	
EPA 6020	Molybdenum	0.0044	mg/L	0.0010	09/25/23 12:03	
EPA 6020	Selenium	0.00033J	mg/L	0.0010	09/25/23 12:03	
SM 2540C	Total Dissolved Solids	307	mg/L	10.0	09/20/23 14:06	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50353997001	**GAMW-14-091423**					
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	09/27/23 19:24	H3
50353997002	**GAMW-14B-091423**					
EPA 9056	Chloride	124	mg/L	2.5	09/17/23 08:50	
EPA 9056	Fluoride	0.23	mg/L	0.050	09/17/23 08:33	
EPA 9056	Sulfate	1140	mg/L	25.0	09/17/23 09:07	
EPA 6010	Boron	3.5	mg/L	0.10	09/23/23 01:15	
EPA 6010	Calcium	174	mg/L	1.0	09/23/23 01:15	
EPA 6020	Arsenic	0.00071J	mg/L	0.0010	09/25/23 12:13	
EPA 6020	Barium	0.083	mg/L	0.0010	09/25/23 12:13	
EPA 6020	Beryllium	0.000065J	mg/L	0.00020	09/25/23 12:13	
EPA 6020	Chromium	0.0016J	mg/L	0.0020	09/25/23 12:13	
EPA 6020	Cobalt	0.00032J	mg/L	0.0010	09/25/23 12:13	
EPA 6020	Lead	0.000057J	mg/L	0.0010	09/25/23 12:13	
EPA 6020	Molybdenum	0.018	mg/L	0.0010	09/25/23 12:13	
EPA 6020	Selenium	0.00064J	mg/L	0.0010	09/25/23 12:13	
SM 2540C	Total Dissolved Solids	2230	mg/L	40.0	09/20/23 14:06	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	09/27/23 19:25	H3
50353997003	**GAMW-13-091423**					
EPA 9056	Chloride	12.2	mg/L	0.25	09/17/23 09:24	
EPA 9056	Fluoride	0.26	mg/L	0.050	09/17/23 09:24	
EPA 9056	Sulfate	41.1	mg/L	0.25	09/17/23 09:24	
EPA 6010	Boron	0.21	mg/L	0.10	09/23/23 01:18	
EPA 6010	Calcium	67.2	mg/L	1.0	09/23/23 01:18	
EPA 6020	Arsenic	0.0057	mg/L	0.0010	09/25/23 12:17	
EPA 6020	Barium	0.11	mg/L	0.0010	09/25/23 12:17	
EPA 6020	Cadmium	0.000069J	mg/L	0.00020	09/25/23 12:17	
EPA 6020	Chromium	0.00096J	mg/L	0.0020	09/25/23 12:17	
EPA 6020	Cobalt	0.00067J	mg/L	0.0010	09/25/23 12:17	
EPA 6020	Molybdenum	0.0033	mg/L	0.0010	09/25/23 12:17	
EPA 6020	Selenium	0.00041J	mg/L	0.0010	09/25/23 12:17	
SM 2540C	Total Dissolved Solids	299	mg/L	10.0	09/20/23 14:06	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	09/27/23 19:26	H3
50353997004	**GAMW-13B-091423**					
EPA 9056	Chloride	25.9	mg/L	2.5	09/17/23 10:33	
EPA 9056	Fluoride	0.22	mg/L	0.050	09/17/23 10:16	
EPA 9056	Sulfate	125	mg/L	2.5	09/17/23 10:33	
EPA 6010	Boron	0.63	mg/L	0.10	09/23/23 01:30	
EPA 6010	Calcium	78.0	mg/L	1.0	09/23/23 01:30	
EPA 6020	Arsenic	0.0011	mg/L	0.0010	09/25/23 12:33	
EPA 6020	Barium	0.076	mg/L	0.0010	09/25/23 12:33	
EPA 6020	Chromium	0.00053J	mg/L	0.0020	09/25/23 12:33	
EPA 6020	Cobalt	0.000093J	mg/L	0.0010	09/25/23 12:33	
EPA 6020	Lead	0.00096J	mg/L	0.0010	09/25/23 12:33	
EPA 6020	Molybdenum	0.015	mg/L	0.0010	09/25/23 12:33	
SM 2540C	Total Dissolved Solids	389	mg/L	10.0	09/20/23 14:11	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	09/27/23 19:27	H3

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
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(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354089001	**GAMW-12-091523**					
EPA 9056	Chloride	4.5	mg/L	0.25	09/22/23 09:23	
EPA 9056	Fluoride	0.20	mg/L	0.050	09/22/23 09:23	
EPA 9056	Sulfate	15.0	mg/L	0.25	09/22/23 09:23	
EPA 6010	Boron	0.062J	mg/L	0.10	09/23/23 01:47	
EPA 6010	Calcium	86.3	mg/L	1.0	09/23/23 01:47	
EPA 6020	Arsenic	0.024	mg/L	0.0010	09/25/23 12:37	
EPA 6020	Barium	0.091	mg/L	0.0010	09/25/23 12:37	
EPA 6020	Chromium	0.00050J	mg/L	0.0020	09/25/23 12:37	
EPA 6020	Cobalt	0.0019	mg/L	0.0010	09/25/23 12:37	
EPA 6020	Molybdenum	0.0037	mg/L	0.0010	09/25/23 12:37	
EPA 6020	Selenium	0.00036J	mg/L	0.0010	09/25/23 12:37	
SM 2540C	Total Dissolved Solids	338	mg/L	10.0	09/21/23 15:22	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	10/02/23 12:51	H3
50354089002	**GAMW-12B-091523**					
EPA 9056	Chloride	22.5	mg/L	2.5	09/22/23 10:32	
EPA 9056	Fluoride	0.098J	mg/L	0.050	09/22/23 10:15	
EPA 9056	Sulfate	90.5	mg/L	2.5	09/22/23 10:32	
EPA 6010	Boron	0.42	mg/L	0.10	09/23/23 01:49	
EPA 6010	Calcium	110	mg/L	1.0	09/23/23 01:49	
EPA 6020	Arsenic	0.00044J	mg/L	0.0010	09/25/23 12:40	
EPA 6020	Barium	0.15	mg/L	0.0010	09/25/23 12:40	
EPA 6020	Chromium	0.00038J	mg/L	0.0020	09/25/23 12:40	
EPA 6020	Cobalt	0.00019J	mg/L	0.0010	09/25/23 12:40	
EPA 6020	Molybdenum	0.0020	mg/L	0.0010	09/25/23 12:40	
SM 2540C	Total Dissolved Solids	475	mg/L	10.0	09/21/23 15:22	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	10/02/23 12:51	H3
50354089003	**GAMW-03-091523**					
EPA 9056	Chloride	4.1	mg/L	0.25	09/22/23 13:24	
EPA 9056	Fluoride	0.16	mg/L	0.050	09/22/23 13:24	
EPA 9056	Sulfate	34.9	mg/L	0.25	09/22/23 13:24	
EPA 6010	Boron	0.12	mg/L	0.10	09/23/23 01:52	
EPA 6010	Calcium	69.4	mg/L	1.0	09/23/23 01:52	
EPA 6020	Arsenic	0.016	mg/L	0.0010	09/25/23 12:50	
EPA 6020	Barium	0.071	mg/L	0.0010	09/25/23 12:50	
EPA 6020	Chromium	0.00040J	mg/L	0.0020	09/25/23 12:50	
EPA 6020	Cobalt	0.00081J	mg/L	0.0010	09/25/23 12:50	
EPA 6020	Lead	0.000041J	mg/L	0.0010	09/25/23 12:50	
EPA 6020	Molybdenum	0.0095	mg/L	0.0010	09/25/23 12:50	
EPA 6020	Selenium	0.00025J	mg/L	0.0010	09/25/23 12:50	
SM 2540C	Total Dissolved Solids	280	mg/L	10.0	09/21/23 15:22	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	10/02/23 12:53	H3
50354089004	**GAMW-03B-091523**					
EPA 9056	Chloride	24.5	mg/L	2.5	09/22/23 14:50	
EPA 9056	Fluoride	0.21	mg/L	0.050	09/22/23 14:32	
EPA 9056	Sulfate	118	mg/L	2.5	09/22/23 14:50	
EPA 6010	Boron	0.42	mg/L	0.10	09/23/23 01:55	

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354089004	**GAMW-03B-091523**					
EPA 6010	Calcium	108	mg/L	1.0	09/23/23 01:55	
EPA 6020	Arsenic	0.00044J	mg/L	0.0010	09/25/23 12:53	
EPA 6020	Barium	0.11	mg/L	0.0010	09/25/23 12:53	
EPA 6020	Chromium	0.00054J	mg/L	0.0020	09/25/23 12:53	
EPA 6020	Cobalt	0.00020J	mg/L	0.0010	09/25/23 12:53	
EPA 6020	Lead	0.00011J	mg/L	0.0010	09/25/23 12:53	
EPA 6020	Molybdenum	0.0059	mg/L	0.0010	09/25/23 12:53	
EPA 6020	Selenium	0.00020J	mg/L	0.0010	09/25/23 12:53	
SM 2540C	Total Dissolved Solids	477	mg/L	10.0	09/21/23 15:23	
SM 4500-H+B	pH at 25 Degrees C	6.9	Std. Units	0.10	10/02/23 13:37	H3
50354175001	**GAMW-51-091823**					
EPA 9056	Chloride	3.9	mg/L	0.25	09/23/23 21:20	
EPA 9056	Fluoride	0.32	mg/L	0.050	09/23/23 21:20	
EPA 9056	Sulfate	282	mg/L	2.5	09/22/23 09:20	
EPA 6010	Boron	0.67	mg/L	0.10	09/23/23 11:53	
EPA 6010	Calcium	178	mg/L	1.0	09/23/23 11:53	
EPA 6010	Lithium	0.0070J	mg/L	0.020	09/23/23 11:53	
EPA 6020	Arsenic	0.0014	mg/L	0.0010	09/25/23 12:57	
EPA 6020	Barium	0.12	mg/L	0.0010	09/25/23 12:57	
EPA 6020	Cadmium	0.000011J	mg/L	0.00020	09/25/23 12:57	
EPA 6020	Chromium	0.00037J	mg/L	0.0020	09/25/23 12:57	
EPA 6020	Cobalt	0.0027	mg/L	0.0010	09/25/23 12:57	
EPA 6020	Lead	0.000037J	mg/L	0.0010	09/25/23 12:57	
EPA 6020	Molybdenum	0.012	mg/L	0.0010	09/25/23 12:57	
EPA 6020	Selenium	0.00021J	mg/L	0.0010	09/25/23 12:57	
SM 2540C	Total Dissolved Solids	782	mg/L	10.0	09/21/23 14:41	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	10/02/23 13:43	H3
50354261001	**GAMW-51B-091923**					
EPA 9056	Chloride	44.7	mg/L	2.5	09/30/23 18:33	
EPA 9056	Fluoride	1.0	mg/L	0.050	09/30/23 18:16	
EPA 9056	Sulfate	1430	mg/L	25.0	10/04/23 00:41	
EPA 6010	Boron	7.4	mg/L	0.10	09/23/23 12:13	
EPA 6010	Calcium	199	mg/L	1.0	09/23/23 12:13	
EPA 6010	Lithium	0.056	mg/L	0.020	09/23/23 12:13	
EPA 6020	Arsenic	0.0042	mg/L	0.0010	09/27/23 15:37	
EPA 6020	Barium	0.050	mg/L	0.0010	09/27/23 15:37	
EPA 6020	Cadmium	0.000023J	mg/L	0.00020	09/27/23 15:37	
EPA 6020	Chromium	0.00055J	mg/L	0.0020	09/27/23 15:37	
EPA 6020	Cobalt	0.00036J	mg/L	0.0010	09/27/23 15:37	
EPA 6020	Molybdenum	0.13	mg/L	0.0010	09/27/23 15:37	
EPA 6020	Selenium	0.00049J	mg/L	0.0010	09/27/23 15:37	
SM 2540C	Total Dissolved Solids	2120	mg/L	40.0	09/25/23 15:51	
SM 4500-H+B	pH at 25 Degrees C	6.7	Std. Units	0.10	10/02/23 14:03	H3
50354261002	**GAMW-08-091923**					
EPA 9056	Chloride	57.5	mg/L	2.5	10/04/23 01:12	
EPA 9056	Fluoride	1.7	mg/L	0.050	09/26/23 19:13	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354261002	**GAMW-08-091923**					
EPA 9056	Sulfate	494	mg/L	25.0	10/04/23 01:28	
EPA 6010	Boron	1.6	mg/L	0.10	09/23/23 12:14	
EPA 6010	Calcium	253	mg/L	2.0	09/23/23 12:31	
EPA 6010	Lithium	0.013J	mg/L	0.020	09/23/23 12:14	
EPA 6020	Antimony	0.00077J	mg/L	0.0010	09/27/23 15:40	
EPA 6020	Arsenic	0.0025	mg/L	0.0010	09/27/23 15:40	
EPA 6020	Barium	0.051	mg/L	0.0010	09/27/23 15:40	
EPA 6020	Cadmium	0.000080J	mg/L	0.00020	09/27/23 15:40	
EPA 6020	Chromium	0.00023J	mg/L	0.0020	09/27/23 15:40	
EPA 6020	Cobalt	0.0044	mg/L	0.0010	09/27/23 15:40	
EPA 6020	Molybdenum	0.057	mg/L	0.0010	09/27/23 15:40	
EPA 6020	Selenium	0.0081	mg/L	0.0010	09/27/23 15:40	
EPA 6020	Thallium	0.00019J	mg/L	0.0010	09/27/23 15:40	
SM 2540C	Total Dissolved Solids	1290	mg/L	20.0	09/25/23 15:51	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	10/02/23 14:04	H3
50354261003	**GAMW-08B-091923**					
EPA 9056	Chloride	219	mg/L	25.0	09/30/23 19:24	
EPA 9056	Fluoride	1.4	mg/L	0.050	09/26/23 19:48	
EPA 9056	Sulfate	1160	mg/L	25.0	09/30/23 19:24	
EPA 6010	Boron	15.5	mg/L	0.10	09/23/23 12:16	
EPA 6010	Calcium	216	mg/L	2.0	09/23/23 12:33	
EPA 6010	Lithium	0.0091J	mg/L	0.020	09/23/23 12:16	
EPA 6020	Arsenic	0.00049J	mg/L	0.0010	09/27/23 15:51	
EPA 6020	Barium	0.050	mg/L	0.0010	09/27/23 15:51	
EPA 6020	Chromium	0.00045J	mg/L	0.0020	09/27/23 15:51	
EPA 6020	Cobalt	0.00036J	mg/L	0.0010	09/27/23 15:51	
EPA 6020	Molybdenum	0.014	mg/L	0.0010	09/27/23 15:51	
EPA 6020	Selenium	0.00044J	mg/L	0.0010	09/27/23 15:51	
SM 2540C	Total Dissolved Solids	2310	mg/L	40.0	09/25/23 15:51	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	10/02/23 14:05	H3
50354261004	**FD-03-091923**					
EPA 9056	Chloride	46.4	mg/L	2.5	10/04/23 02:00	
EPA 9056	Fluoride	0.94	mg/L	0.050	09/26/23 20:22	
EPA 9056	Sulfate	1270	mg/L	25.0	10/04/23 02:15	
EPA 6010	Boron	7.4	mg/L	0.10	09/23/23 12:20	
EPA 6010	Calcium	200	mg/L	1.0	09/23/23 12:20	
EPA 6010	Lithium	0.056	mg/L	0.020	09/23/23 12:20	
EPA 6020	Arsenic	0.0042	mg/L	0.0010	09/27/23 15:54	
EPA 6020	Barium	0.049	mg/L	0.0010	09/27/23 15:54	
EPA 6020	Chromium	0.00056J	mg/L	0.0020	09/27/23 15:54	
EPA 6020	Cobalt	0.00040J	mg/L	0.0010	09/27/23 15:54	
EPA 6020	Molybdenum	0.13	mg/L	0.0010	09/27/23 15:54	
EPA 6020	Selenium	0.00050J	mg/L	0.0010	09/27/23 15:54	
SM 2540C	Total Dissolved Solids	2040	mg/L	40.0	09/25/23 15:52	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	10/02/23 14:07	H3

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354261005	**FB-04-091923**					
EPA 6010	Boron	0.019J	mg/L	0.10	09/23/23 12:22	
EPA 6020	Barium	0.00056J	mg/L	0.0010	09/27/23 15:57	
EPA 6020	Chromium	0.00024J	mg/L	0.0020	09/27/23 15:57	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	10/03/23 16:34	H3
50354261006	**GAMW-60-091923**					
EPA 9056	Chloride	27.1	mg/L	2.5	09/30/23 20:50	
EPA 9056	Fluoride	0.45	mg/L	0.050	09/26/23 21:31	
EPA 9056	Sulfate	517	mg/L	25.0	09/30/23 21:08	
EPA 6010	Boron	1.5	mg/L	0.10	09/23/23 12:23	
EPA 6010	Calcium	267	mg/L	2.0	09/23/23 12:34	
EPA 6010	Lithium	0.0073J	mg/L	0.020	09/23/23 12:23	
EPA 6020	Antimony	0.00020J	mg/L	0.0010	09/27/23 16:01	
EPA 6020	Arsenic	0.00033J	mg/L	0.0010	09/27/23 16:01	
EPA 6020	Barium	0.031	mg/L	0.0010	09/27/23 16:01	
EPA 6020	Cadmium	0.000032J	mg/L	0.00020	09/27/23 16:01	
EPA 6020	Chromium	0.0019J	mg/L	0.0020	09/27/23 16:01	
EPA 6020	Cobalt	0.0011	mg/L	0.0010	09/27/23 16:01	
EPA 6020	Molybdenum	0.019	mg/L	0.0010	09/27/23 16:01	
EPA 6020	Selenium	0.0021	mg/L	0.0010	09/27/23 16:01	
SM 2540C	Total Dissolved Solids	1160	mg/L	20.0	09/25/23 15:52	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	10/03/23 16:26	H3
50354261007	**GAMW-60B-091923**					
EPA 9056	Chloride	9.2	mg/L	0.25	09/26/23 22:39	
EPA 9056	Fluoride	0.41	mg/L	0.050	09/26/23 22:39	
EPA 9056	Sulfate	1040	mg/L	25.0	09/30/23 21:25	
EPA 6010	Boron	4.3	mg/L	0.10	09/23/23 12:25	
EPA 6010	Calcium	368	mg/L	3.0	09/23/23 12:39	
EPA 6010	Lithium	0.064	mg/L	0.020	09/23/23 12:25	
EPA 6020	Arsenic	0.00019J	mg/L	0.0010	09/27/23 16:15	
EPA 6020	Barium	0.062	mg/L	0.0010	09/27/23 16:15	
EPA 6020	Cadmium	0.000022J	mg/L	0.00020	09/27/23 16:15	
EPA 6020	Chromium	0.00030J	mg/L	0.0020	09/27/23 16:15	
EPA 6020	Cobalt	0.00057J	mg/L	0.0010	09/27/23 16:15	
EPA 6020	Molybdenum	0.15	mg/L	0.0010	09/27/23 16:15	
SM 2540C	Total Dissolved Solids	1730	mg/L	20.0	09/25/23 15:52	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	10/03/23 16:28	H3
50354261008	**GAMW-59-091923**					
EPA 9056	Chloride	5.7	mg/L	0.25	09/26/23 23:14	
EPA 9056	Fluoride	0.70	mg/L	0.050	09/26/23 23:14	
EPA 9056	Sulfate	549	mg/L	25.0	09/30/23 21:42	
EPA 6010	Boron	0.50	mg/L	0.10	09/23/23 12:26	
EPA 6010	Calcium	265	mg/L	2.0	09/23/23 12:40	
EPA 6010	Lithium	0.0099J	mg/L	0.020	09/23/23 12:26	
EPA 6020	Arsenic	0.0012	mg/L	0.0010	09/27/23 16:18	
EPA 6020	Barium	0.069	mg/L	0.0010	09/27/23 16:18	
EPA 6020	Chromium	0.00038J	mg/L	0.0020	09/27/23 16:18	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354261008	**GAMW-59-091923**					
EPA 6020	Cobalt	0.00083J	mg/L	0.0010	09/27/23 16:18	
EPA 6020	Molybdenum	0.025	mg/L	0.0010	09/27/23 16:18	
SM 2540C	Total Dissolved Solids	1050	mg/L	20.0	09/25/23 15:53	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	10/03/23 16:29	H3
50354383001	**GAMW-16R-092023**					
EPA 9056	Chloride	44.3	mg/L	2.5	09/27/23 18:19	
EPA 9056	Fluoride	0.65	mg/L	0.050	09/27/23 18:02	
EPA 9056	Sulfate	181	mg/L	2.5	09/27/23 18:19	
EPA 6010	Boron	6.1	mg/L	0.10	09/29/23 11:19	
EPA 6010	Calcium	137	mg/L	1.0	09/29/23 11:19	
EPA 6020	Arsenic	0.0068	mg/L	0.0010	09/27/23 16:21	
EPA 6020	Barium	0.038	mg/L	0.0010	09/27/23 16:21	
EPA 6020	Chromium	0.00031J	mg/L	0.0020	09/27/23 16:21	
EPA 6020	Cobalt	0.0012	mg/L	0.0010	09/27/23 16:21	
EPA 6020	Molybdenum	0.042	mg/L	0.0010	09/27/23 16:21	
EPA 6020	Thallium	0.000066J	mg/L	0.0010	09/27/23 16:21	
SM 2540C	Total Dissolved Solids	656	mg/L	10.0	09/27/23 12:20	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	10/03/23 16:35	H3
50354383002	**GAMW-16BR-092023**					
EPA 9056	Chloride	245	mg/L	2.5	09/27/23 16:36	
EPA 9056	Fluoride	0.75	mg/L	0.050	09/27/23 16:19	
EPA 9056	Sulfate	786	mg/L	25.0	10/01/23 10:15	
EPA 6010	Boron	12.9	mg/L	0.10	09/29/23 11:26	
EPA 6010	Calcium	265	mg/L	2.0	09/29/23 11:53	
EPA 6010	Lithium	0.012J	mg/L	0.020	09/29/23 11:26	
EPA 6020	Arsenic	0.0023	mg/L	0.0010	09/27/23 16:55	
EPA 6020	Barium	0.026	mg/L	0.0010	09/27/23 16:55	
EPA 6020	Chromium	0.00049J	mg/L	0.0020	09/27/23 16:55	
EPA 6020	Cobalt	0.00042J	mg/L	0.0010	09/27/23 16:55	
EPA 6020	Lead	0.00012J	mg/L	0.0010	09/27/23 16:55	
EPA 6020	Molybdenum	0.0060	mg/L	0.0010	09/27/23 16:55	
EPA 6020	Selenium	0.00037J	mg/L	0.0010	09/27/23 16:55	
SM 2540C	Total Dissolved Solids	1860	mg/L	20.0	09/27/23 12:21	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	10/03/23 16:41	H3
50354383003	**GAMW-59B-092023**					
EPA 9056	Chloride	14.0	mg/L	0.25	09/27/23 16:53	
EPA 9056	Fluoride	0.46	mg/L	0.050	09/27/23 16:53	
EPA 9056	Sulfate	853	mg/L	25.0	10/01/23 10:30	
EPA 6010	Boron	3.0	mg/L	0.10	09/29/23 11:28	
EPA 6010	Calcium	184	mg/L	1.0	09/29/23 11:28	
EPA 6010	Lithium	0.0073J	mg/L	0.020	09/29/23 11:28	
EPA 6020	Arsenic	0.00070J	mg/L	0.0010	09/27/23 16:58	
EPA 6020	Barium	0.027	mg/L	0.0010	09/27/23 16:58	
EPA 6020	Chromium	0.00067J	mg/L	0.0020	09/27/23 16:58	
EPA 6020	Cobalt	0.00035J	mg/L	0.0010	09/27/23 16:58	
EPA 6020	Molybdenum	0.043	mg/L	0.0010	09/27/23 16:58	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354383003	**GAMW-59B-092023**					
EPA 6020	Selenium	0.00023J	mg/L	0.0010	09/27/23 16:58	
SM 2540C	Total Dissolved Solids	1500	mg/L	20.0	09/27/23 12:21	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	10/03/23 16:39	H3
50354383004	**GAMW-17-092023**					
EPA 9056	Chloride	35.8	mg/L	2.5	09/27/23 21:28	
EPA 9056	Fluoride	1.4	mg/L	0.050	09/27/23 21:11	
EPA 9056	Sulfate	348	mg/L	2.5	09/27/23 21:28	
EPA 6010	Boron	8.0	mg/L	0.10	09/29/23 11:29	
EPA 6010	Calcium	172	mg/L	1.0	09/29/23 11:29	
EPA 6020	Antimony	0.00026J	mg/L	0.0010	09/27/23 17:02	
EPA 6020	Arsenic	0.0025	mg/L	0.0010	09/27/23 17:02	
EPA 6020	Barium	0.059	mg/L	0.0010	09/27/23 17:02	
EPA 6020	Chromium	0.00067J	mg/L	0.0020	09/27/23 17:02	
EPA 6020	Cobalt	0.00028J	mg/L	0.0010	09/27/23 17:02	
EPA 6020	Molybdenum	0.012	mg/L	0.0010	09/27/23 17:02	
EPA 6020	Selenium	0.0072	mg/L	0.0010	09/27/23 17:02	
SM 2540C	Total Dissolved Solids	843	mg/L	10.0	09/27/23 12:21	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	10/03/23 16:43	H3
50354467001	**GAMW-09-092123**					
EPA 9056	Chloride	21.7	mg/L	2.5	09/27/23 23:45	
EPA 9056	Fluoride	0.27	mg/L	0.050	09/27/23 23:28	
EPA 9056	Sulfate	489	mg/L	2.5	09/27/23 23:45	
EPA 6010	Boron	1.9	mg/L	0.10	09/29/23 11:37	
EPA 6010	Calcium	220	mg/L	2.0	09/29/23 11:56	
EPA 6020	Arsenic	0.00020J	mg/L	0.0010	09/27/23 17:05	
EPA 6020	Barium	0.040	mg/L	0.0010	09/27/23 17:05	
EPA 6020	Beryllium	0.00029	mg/L	0.00020	09/28/23 10:31	
EPA 6020	Cadmium	0.00010J	mg/L	0.00020	09/27/23 17:05	
EPA 6020	Chromium	0.00082J	mg/L	0.0020	09/27/23 17:05	
EPA 6020	Cobalt	0.00044J	mg/L	0.0010	09/27/23 17:05	
EPA 6020	Molybdenum	0.043	mg/L	0.0010	09/27/23 17:05	
EPA 6020	Selenium	0.0079	mg/L	0.0010	09/27/23 17:05	
SM 2540C	Total Dissolved Solids	957	mg/L	10.0	09/28/23 15:35	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	10/04/23 14:31	H3
50354467002	**GAMW-09B-092123**					
EPA 9056	Chloride	126	mg/L	2.5	09/28/23 00:54	
EPA 9056	Fluoride	0.84	mg/L	0.050	10/06/23 06:59	
EPA 9056	Sulfate	944	mg/L	25.0	10/01/23 11:18	
EPA 6010	Boron	8.5	mg/L	0.10	09/29/23 11:42	
EPA 6010	Calcium	291	mg/L	2.0	09/29/23 12:01	
EPA 6010	Lithium	0.0075J	mg/L	0.020	09/29/23 11:42	
EPA 6020	Arsenic	0.0018	mg/L	0.0010	09/27/23 17:16	
EPA 6020	Barium	0.058	mg/L	0.0010	09/27/23 17:16	
EPA 6020	Chromium	0.00025J	mg/L	0.0020	09/28/23 10:41	
EPA 6020	Cobalt	0.00078J	mg/L	0.0010	09/27/23 17:16	
EPA 6020	Molybdenum	0.016	mg/L	0.0010	09/27/23 17:16	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354467002	**GAMW-09B-092123**					
EPA 6020	Selenium	0.00060J	mg/L	0.0010	09/27/23 17:16	
SM 2540C	Total Dissolved Solids	1740	mg/L	20.0	09/28/23 15:35	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	10/04/23 14:32	H3
50354467003	**GAMW-18-092123**					
EPA 9056	Chloride	70.7	mg/L	2.5	09/28/23 01:28	
EPA 9056	Fluoride	0.13	mg/L	0.050	09/28/23 01:11	
EPA 9056	Sulfate	967	mg/L	25.0	10/01/23 11:33	
EPA 6010	Boron	5.4	mg/L	0.10	09/29/23 11:44	
EPA 6010	Calcium	395	mg/L	2.0	09/29/23 12:03	
EPA 6020	Antimony	0.00012J	mg/L	0.0010	09/27/23 17:19	
EPA 6020	Arsenic	0.00082J	mg/L	0.0010	09/27/23 17:19	
EPA 6020	Barium	0.036	mg/L	0.0010	09/27/23 17:19	
EPA 6020	Cadmium	0.00010J	mg/L	0.00020	09/27/23 17:19	
EPA 6020	Chromium	0.0010J	mg/L	0.0020	09/28/23 10:44	
EPA 6020	Cobalt	0.00066J	mg/L	0.0010	09/27/23 17:19	
EPA 6020	Lead	0.00021J	mg/L	0.0010	09/27/23 17:19	
EPA 6020	Molybdenum	0.18	mg/L	0.0010	09/27/23 17:19	
EPA 6020	Selenium	0.050	mg/L	0.0010	09/27/23 17:19	
SM 2540C	Total Dissolved Solids	1810	mg/L	20.0	09/28/23 15:36	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	10/04/23 14:33	H3
50354467004	**FB-03-092123**					
EPA 6010	Boron	0.022J	mg/L	0.10	09/29/23 11:45	
EPA 6020	Barium	0.00042J	mg/L	0.0010	09/27/23 17:23	
EPA 6020	Chromium	0.00027J	mg/L	0.0020	09/28/23 10:51	
SM 4500-H+B	pH at 25 Degrees C	8.5	Std. Units	0.10	10/04/23 14:34	H3
50354467005	**FD-04-092123**					
EPA 9056	Chloride	70.4	mg/L	2.5	09/28/23 02:37	
EPA 9056	Fluoride	0.13	mg/L	0.050	09/28/23 02:20	
EPA 9056	Sulfate	958	mg/L	25.0	10/01/23 11:49	
EPA 6010	Boron	5.6	mg/L	0.10	09/29/23 11:47	
EPA 6010	Calcium	398	mg/L	2.0	09/29/23 12:05	
EPA 6020	Antimony	0.00012J	mg/L	0.0010	09/27/23 17:26	
EPA 6020	Arsenic	0.00084J	mg/L	0.0010	09/27/23 17:26	
EPA 6020	Barium	0.036	mg/L	0.0010	09/27/23 17:26	
EPA 6020	Cadmium	0.00011J	mg/L	0.00020	09/27/23 17:26	
EPA 6020	Chromium	0.0011J	mg/L	0.0020	09/28/23 10:48	
EPA 6020	Cobalt	0.00068J	mg/L	0.0010	09/27/23 17:26	
EPA 6020	Lead	0.00024J	mg/L	0.0010	09/27/23 17:26	
EPA 6020	Molybdenum	0.18	mg/L	0.0010	09/27/23 17:26	
EPA 6020	Selenium	0.049	mg/L	0.0010	09/27/23 17:26	
SM 2540C	Total Dissolved Solids	1810	mg/L	20.0	09/28/23 15:36	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	10/04/23 14:34	H3
50354592001	**GAMW-18B-092223**					
EPA 9056	Chloride	133	mg/L	25.0	10/10/23 10:47	
EPA 9056	Fluoride	0.98	mg/L	0.050	10/01/23 20:10	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354592001	**GAMW-18B-092223**					
EPA 9056	Sulfate	1110	mg/L	25.0	10/10/23 10:47	
EPA 6010	Boron	11.5	mg/L	0.10	10/05/23 16:26	
EPA 6010	Calcium	354	mg/L	3.0	10/05/23 17:09	
EPA 6010	Lithium	0.021	mg/L	0.020	10/05/23 16:26	
EPA 6020	Arsenic	0.0027	mg/L	0.0010	10/02/23 20:42	
EPA 6020	Barium	0.027	mg/L	0.0010	10/02/23 20:42	
EPA 6020	Chromium	0.00029J	mg/L	0.0020	10/02/23 20:42	
EPA 6020	Cobalt	0.00044J	mg/L	0.0010	10/02/23 20:42	
EPA 6020	Molybdenum	0.015	mg/L	0.0010	10/02/23 20:42	
EPA 6020	Selenium	0.00024J	mg/L	0.0010	10/02/23 20:42	
SM 2540C	Total Dissolved Solids	2090	mg/L	20.0	09/28/23 15:57	
SM 4500-H+B	pH at 25 Degrees C	6.1	Std. Units	0.10	10/04/23 14:46	H3
50354592002	**GAMW-56-092223**					
EPA 9056	Chloride	12.5	mg/L	0.25	10/01/23 21:19	
EPA 9056	Fluoride	0.67	mg/L	0.050	10/01/23 21:19	
EPA 9056	Sulfate	65.8	mg/L	2.5	10/01/23 21:37	
EPA 6010	Boron	0.36	mg/L	0.10	10/05/23 16:27	
EPA 6010	Calcium	100	mg/L	1.0	10/05/23 16:27	
EPA 6020	Antimony	0.00015J	mg/L	0.0010	10/02/23 20:45	
EPA 6020	Arsenic	0.00091J	mg/L	0.0010	10/02/23 20:45	
EPA 6020	Barium	0.033	mg/L	0.0010	10/02/23 20:45	
EPA 6020	Cadmium	0.000030J	mg/L	0.00020	10/02/23 20:45	
EPA 6020	Chromium	0.00033J	mg/L	0.0020	10/02/23 20:45	
EPA 6020	Cobalt	0.0023	mg/L	0.0010	10/02/23 20:45	
EPA 6020	Molybdenum	0.0097	mg/L	0.0010	10/02/23 20:45	
EPA 6020	Selenium	0.00078J	mg/L	0.0010	10/02/23 20:45	
SM 2540C	Total Dissolved Solids	435	mg/L	10.0	09/28/23 15:57	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	10/04/23 14:47	H3
50354592003	**FD-05-092223**					
EPA 9056	Chloride	12.5	mg/L	0.25	10/01/23 21:54	
EPA 9056	Fluoride	0.68	mg/L	0.050	10/01/23 21:54	
EPA 9056	Sulfate	66.5	mg/L	2.5	10/01/23 22:11	
EPA 6010	Boron	0.35	mg/L	0.10	10/05/23 16:29	
EPA 6010	Calcium	101	mg/L	1.0	10/05/23 16:29	
EPA 6020	Antimony	0.00014J	mg/L	0.0010	10/02/23 20:49	
EPA 6020	Arsenic	0.00087J	mg/L	0.0010	10/02/23 20:49	
EPA 6020	Barium	0.032	mg/L	0.0010	10/02/23 20:49	
EPA 6020	Cadmium	0.000028J	mg/L	0.00020	10/02/23 20:49	
EPA 6020	Chromium	0.00030J	mg/L	0.0020	10/02/23 20:49	
EPA 6020	Cobalt	0.0023	mg/L	0.0010	10/02/23 20:49	
EPA 6020	Molybdenum	0.0095	mg/L	0.0010	10/02/23 20:49	
EPA 6020	Selenium	0.00079J	mg/L	0.0010	10/02/23 20:49	
SM 2540C	Total Dissolved Solids	391	mg/L	10.0	09/28/23 16:05	
SM 4500-H+B	pH at 25 Degrees C	6.8	Std. Units	0.10	10/04/23 14:48	H3
50354669001	**GAMW-54-092523**					
EPA 9056	Chloride	17.8	mg/L	2.5	10/03/23 16:38	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354669001	**GAMW-54-092523**					
EPA 9056	Fluoride	0.35	mg/L	0.050	10/03/23 16:21	
EPA 9056	Sulfate	192	mg/L	2.5	10/03/23 16:38	
EPA 6010	Boron	0.80	mg/L	0.10	10/05/23 16:55	
EPA 6010	Calcium	128	mg/L	1.0	10/05/23 16:55	
EPA 6020	Arsenic	0.015	mg/L	0.0010	09/29/23 21:58	
EPA 6020	Barium	0.053	mg/L	0.0010	09/29/23 21:58	
EPA 6020	Cadmium	0.000026J	mg/L	0.00020	09/29/23 21:58	
EPA 6020	Chromium	0.00070J	mg/L	0.0020	09/29/23 21:58	
EPA 6020	Cobalt	0.00068J	mg/L	0.0010	09/29/23 21:58	
EPA 6020	Lead	0.000063J	mg/L	0.0010	09/29/23 21:58	
EPA 6020	Molybdenum	0.040	mg/L	0.0010	09/29/23 21:58	
EPA 6020	Selenium	0.00055J	mg/L	0.0010	09/29/23 21:58	
EPA 6020	Thallium	0.00012J	mg/L	0.0010	09/29/23 21:58	
SM 2540C	Total Dissolved Solids	562	mg/L	10.0	09/30/23 14:31	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	10/04/23 16:43	H3
50354669002	**GAMW-54B-092523**					
EPA 9056	Chloride	129	mg/L	25.0	10/10/23 10:31	
EPA 9056	Fluoride	0.33	mg/L	0.050	10/10/23 10:15	
EPA 9056	Sulfate	500	mg/L	25.0	10/10/23 10:31	
EPA 6010	Boron	5.7	mg/L	0.10	10/05/23 16:57	
EPA 6010	Calcium	221	mg/L	2.0	10/05/23 17:10	
EPA 6010	Lithium	0.0065J	mg/L	0.020	10/05/23 16:57	
EPA 6020	Arsenic	0.0038	mg/L	0.0010	09/29/23 22:28	
EPA 6020	Barium	0.080	mg/L	0.0010	09/29/23 22:28	
EPA 6020	Chromium	0.00040J	mg/L	0.0020	09/29/23 22:28	
EPA 6020	Cobalt	0.00019J	mg/L	0.0010	09/29/23 22:28	
EPA 6020	Lead	0.000035J	mg/L	0.0010	09/29/23 22:28	
EPA 6020	Molybdenum	0.0092	mg/L	0.0010	09/29/23 22:28	
SM 2540C	Total Dissolved Solids	1210	mg/L	20.0	09/30/23 14:32	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	10/04/23 16:44	H3
50354669003	**FB-05-092523**					
EPA 6010	Boron	0.013J	mg/L	0.10	10/05/23 16:58	
EPA 6020	Barium	0.0010	mg/L	0.0010	09/29/23 21:55	C0
EPA 6020	Chromium	0.00029J	mg/L	0.0020	09/29/23 21:55	
EPA 6020	Lead	0.000034J	mg/L	0.0010	09/29/23 21:55	
SM 4500-H+B	pH at 25 Degrees C	8.7	Std. Units	0.10	10/04/23 16:45	H3
50354669004	**GAMW-56B-092523**					
EPA 9056	Chloride	58.4	mg/L	2.5	10/03/23 18:57	
EPA 9056	Fluoride	0.44	mg/L	0.050	10/03/23 18:40	
EPA 9056	Sulfate	368	mg/L	2.5	10/03/23 18:57	
EPA 6010	Boron	0.21	mg/L	0.10	10/05/23 17:00	
EPA 6010	Calcium	62.2	mg/L	1.0	10/05/23 17:00	
EPA 6020	Arsenic	0.00049J	mg/L	0.0010	09/29/23 22:32	
EPA 6020	Barium	0.082	mg/L	0.0010	09/29/23 22:32	
EPA 6020	Chromium	0.00041J	mg/L	0.0020	09/29/23 22:32	
EPA 6020	Cobalt	0.00017J	mg/L	0.0010	09/29/23 22:32	

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
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(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354669004	**GAMW-56B-092523**					
EPA 6020	Molybdenum	0.0092	mg/L	0.0010	09/29/23 22:32	
SM 2540C	Total Dissolved Solids	924	mg/L	20.0	09/30/23 14:32	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	10/04/23 16:46	H3
50354669005	**GAMW-52-092523**					
EPA 9056	Chloride	70.3	mg/L	2.5	10/03/23 19:32	
EPA 9056	Fluoride	0.42	mg/L	0.050	10/03/23 19:15	
EPA 9056	Sulfate	65.5	mg/L	2.5	10/03/23 19:32	
EPA 6010	Boron	3.5	mg/L	0.10	10/05/23 17:01	
EPA 6010	Calcium	160	mg/L	1.0	10/05/23 17:01	
EPA 6010	Lithium	0.0073J	mg/L	0.020	10/05/23 17:01	
EPA 6020	Arsenic	0.00017J	mg/L	0.0010	09/29/23 22:35	
EPA 6020	Barium	0.014	mg/L	0.0010	09/29/23 22:35	
EPA 6020	Cadmium	0.000016J	mg/L	0.00020	09/29/23 22:35	
EPA 6020	Chromium	0.00028J	mg/L	0.0020	09/29/23 22:35	
EPA 6020	Cobalt	0.00011J	mg/L	0.0010	09/29/23 22:35	
EPA 6020	Molybdenum	0.0044	mg/L	0.0010	09/29/23 22:35	
EPA 6020	Selenium	0.00031J	mg/L	0.0010	09/29/23 22:35	
EPA 6020	Thallium	0.00014J	mg/L	0.0010	09/29/23 22:35	
SM 2540C	Total Dissolved Solids	379	mg/L	10.0	09/30/23 14:33	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	10/04/23 16:47	H3
50354669006	**GAMW-52B-092523**					
EPA 9056	Chloride	97.8	mg/L	2.5	10/03/23 20:07	
EPA 9056	Fluoride	0.71	mg/L	0.050	10/03/23 19:49	
EPA 9056	Sulfate	82.3	mg/L	2.5	10/03/23 20:07	
EPA 6010	Boron	0.094J	mg/L	0.10	10/05/23 17:07	
EPA 6010	Calcium	64.1	mg/L	1.0	10/05/23 17:07	
EPA 6020	Arsenic	0.00061J	mg/L	0.0010	09/29/23 22:38	
EPA 6020	Barium	0.084	mg/L	0.0010	09/29/23 22:38	
EPA 6020	Chromium	0.00034J	mg/L	0.0020	09/29/23 22:38	
EPA 6020	Cobalt	0.000060J	mg/L	0.0010	09/29/23 22:38	
EPA 6020	Lead	0.000047J	mg/L	0.0010	09/29/23 22:38	
EPA 6020	Molybdenum	0.012	mg/L	0.0010	09/29/23 22:38	
SM 2540C	Total Dissolved Solids	459	mg/L	10.0	09/30/23 14:33	
SM 4500-H+B	pH at 25 Degrees C	7.1	Std. Units	0.10	10/04/23 16:48	H3
50355025001	**GAMW-53-092823**					
EPA 9056	Chloride	2.7	mg/L	0.25	10/12/23 21:25	
EPA 9056	Fluoride	0.053J	mg/L	0.050	10/12/23 21:25	
EPA 9056	Sulfate	44.3	mg/L	2.5	10/12/23 21:42	
EPA 6010	Boron	0.11	mg/L	0.10	10/12/23 11:01	
EPA 6010	Calcium	42.4	mg/L	1.0	10/12/23 11:01	
EPA 6020	Antimony	0.00064J	mg/L	0.0010	10/04/23 05:45	
EPA 6020	Arsenic	0.0012	mg/L	0.0010	10/04/23 05:45	
EPA 6020	Barium	0.028	mg/L	0.0010	10/04/23 05:45	
EPA 6020	Cadmium	0.000028J	mg/L	0.00020	10/04/23 05:45	
EPA 6020	Chromium	0.0013J	mg/L	0.0020	10/04/23 05:45	
EPA 6020	Cobalt	0.00051J	mg/L	0.0010	10/04/23 05:45	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355025001	**GAMW-53-092823**					
EPA 6020	Lead	0.00048J	mg/L	0.0010	10/04/23 05:45	
EPA 6020	Molybdenum	0.015	mg/L	0.0010	10/04/23 05:45	
EPA 6020	Selenium	0.00086J	mg/L	0.0010	10/04/23 05:45	
EPA 6020	Thallium	0.000067J	mg/L	0.0010	10/04/23 05:45	
SM 2540C	Total Dissolved Solids	211	mg/L	10.0	10/05/23 15:23	
SM 4500-H+B	pH at 25 Degrees C	7.0	Std. Units	0.10	10/13/23 14:33	H3
50355025002	**GAMW-53B-092823**					
EPA 9056	Chloride	123	mg/L	25.0	10/11/23 17:36	
EPA 9056	Fluoride	0.39	mg/L	0.050	10/11/23 17:03	
EPA 9056	Sulfate	498	mg/L	25.0	10/11/23 17:36	
EPA 6010	Boron	4.7	mg/L	0.10	10/12/23 11:03	
EPA 6010	Calcium	199	mg/L	1.0	10/12/23 11:03	
EPA 6020	Arsenic	0.00089J	mg/L	0.0010	10/04/23 05:48	
EPA 6020	Barium	0.071	mg/L	0.0010	10/04/23 05:48	
EPA 6020	Chromium	0.00024J	mg/L	0.0020	10/04/23 05:48	
EPA 6020	Cobalt	0.00022J	mg/L	0.0010	10/04/23 05:48	
EPA 6020	Lead	0.000024J	mg/L	0.0010	10/04/23 05:48	
EPA 6020	Molybdenum	0.0065	mg/L	0.0010	10/04/23 05:48	
SM 2540C	Total Dissolved Solids	1280	mg/L	20.0	10/05/23 15:23	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	10/13/23 14:35	H3
50355129001	**GAMW-55R-092923**					
EPA 9056	Chloride	40.6	mg/L	2.5	10/12/23 00:05	
EPA 9056	Fluoride	0.75	mg/L	0.050	10/11/23 23:48	
EPA 9056	Sulfate	368	mg/L	2.5	10/12/23 00:05	
EPA 6010	Boron	0.014J	mg/L	0.10	10/12/23 11:59	
EPA 6020	Barium	0.00044J	mg/L	0.0010	10/04/23 06:12	
EPA 6020	Chromium	0.00028J	mg/L	0.0020	10/04/23 06:12	
EPA 6020	Lead	0.000026J	mg/L	0.0010	10/04/23 06:12	
SM 2540C	Total Dissolved Solids	806	mg/L	10.0	10/05/23 15:25	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	10/16/23 14:10	H3
50355129002	**GAMW-55B-092923**					
EPA 9056	Chloride	124	mg/L	2.5	10/12/23 00:53	
EPA 9056	Fluoride	0.24	mg/L	0.050	10/12/23 00:37	
EPA 9056	Sulfate	508	mg/L	25.0	10/12/23 01:09	
EPA 6010	Boron	7.6	mg/L	0.10	10/12/23 12:02	
EPA 6010	Calcium	191	mg/L	1.0	10/12/23 12:02	
EPA 6020	Arsenic	0.00018J	mg/L	0.0010	10/04/23 06:15	
EPA 6020	Barium	0.054	mg/L	0.0010	10/04/23 06:15	
EPA 6020	Chromium	0.00024J	mg/L	0.0020	10/04/23 06:15	
EPA 6020	Cobalt	0.00021J	mg/L	0.0010	10/04/23 06:15	
EPA 6020	Lead	0.000022J	mg/L	0.0010	10/04/23 06:15	
EPA 6020	Molybdenum	0.0065	mg/L	0.0010	10/04/23 06:15	
SM 2540C	Total Dissolved Solids	1190	mg/L	20.0	10/05/23 15:25	
SM 4500-H+B	pH at 25 Degrees C	7.2	Std. Units	0.10	10/16/23 14:11	H3

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355221001	**GAMW-17B-100223**					
EPA 9056	Chloride	156	mg/L	2.5	10/14/23 00:19	
EPA 9056	Fluoride	0.66	mg/L	0.050	10/14/23 00:02	
EPA 9056	Sulfate	834	mg/L	25.0	10/14/23 00:36	
EPA 6010	Boron	11.4	mg/L	0.10	10/14/23 16:14	
EPA 6010	Calcium	288	mg/L	2.0	10/14/23 16:35	
EPA 6020	Arsenic	0.0028	mg/L	0.0010	10/06/23 06:08	
EPA 6020	Barium	0.069	mg/L	0.0010	10/06/23 06:08	
EPA 6020	Chromium	0.00027J	mg/L	0.0020	10/06/23 06:08	
EPA 6020	Cobalt	0.00026J	mg/L	0.0010	10/06/23 06:08	
EPA 6020	Lead	0.000026J	mg/L	0.0010	10/06/23 06:08	
EPA 6020	Molybdenum	0.016	mg/L	0.0010	10/06/23 06:08	
SM 2540C	Total Dissolved Solids	1480	mg/L	20.0	10/05/23 15:37	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	10/16/23 14:17	H3
50355221002	**GAMW-68-100223**					
EPA 9056	Chloride	18.7	mg/L	0.25	10/14/23 00:53	
EPA 9056	Fluoride	0.18	mg/L	0.050	10/14/23 00:53	
EPA 9056	Sulfate	63.6	mg/L	2.5	10/14/23 01:10	
EPA 6010	Boron	0.060J	mg/L	0.10	10/14/23 16:16	
EPA 6010	Calcium	63.9	mg/L	1.0	10/14/23 16:16	
EPA 6010	Lithium	0.0069J	mg/L	0.020	10/14/23 16:16	
EPA 6020	Antimony	0.00019J	mg/L	0.0010	10/06/23 06:18	
EPA 6020	Arsenic	0.00097J	mg/L	0.0010	10/06/23 06:18	
EPA 6020	Barium	0.10	mg/L	0.0010	10/06/23 06:18	
EPA 6020	Chromium	0.00021J	mg/L	0.0020	10/06/23 06:18	
EPA 6020	Cobalt	0.00053J	mg/L	0.0010	10/06/23 06:18	
EPA 6020	Lead	0.000086J	mg/L	0.0010	10/06/23 06:18	
EPA 6020	Molybdenum	0.0040	mg/L	0.0010	10/06/23 06:18	
SM 2540C	Total Dissolved Solids	282	mg/L	10.0	10/05/23 15:37	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	10/16/23 14:19	H3
50355221003	**GAMW-68B-100223**					
EPA 9056	Chloride	13.0	mg/L	0.25	10/14/23 01:45	
EPA 9056	Fluoride	0.17	mg/L	0.050	10/14/23 01:45	
EPA 9056	Sulfate	46.7	mg/L	2.5	10/14/23 02:02	
EPA 6010	Boron	0.041J	mg/L	0.10	10/14/23 16:19	
EPA 6010	Calcium	41.4	mg/L	1.0	10/14/23 16:19	
EPA 6010	Lithium	0.0067J	mg/L	0.020	10/14/23 16:19	
EPA 6020	Arsenic	0.00031J	mg/L	0.0010	10/06/23 06:21	
EPA 6020	Barium	0.082	mg/L	0.0010	10/06/23 06:21	
EPA 6020	Chromium	0.00024J	mg/L	0.0020	10/06/23 06:21	
EPA 6020	Cobalt	0.000046J	mg/L	0.0010	10/06/23 06:21	
EPA 6020	Lead	0.000061J	mg/L	0.0010	10/06/23 06:21	
EPA 6020	Molybdenum	0.0023	mg/L	0.0010	10/06/23 06:21	
SM 2540C	Total Dissolved Solids	203	mg/L	10.0	10/05/23 15:37	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	10/17/23 13:37	H3
50355221004	**FD-06-100223**					
EPA 9056	Chloride	12.9	mg/L	0.25	10/14/23 04:55	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355221004	**FD-06-100223**					
EPA 9056	Fluoride	0.17	mg/L	0.050	10/14/23 04:55	
EPA 9056	Sulfate	46.7	mg/L	2.5	10/14/23 05:10	
EPA 6010	Boron	0.034J	mg/L	0.10	10/14/23 16:22	
EPA 6010	Calcium	41.4	mg/L	1.0	10/14/23 16:22	
EPA 6010	Lithium	0.0067J	mg/L	0.020	10/14/23 16:22	
EPA 6020	Arsenic	0.00029J	mg/L	0.0010	10/06/23 06:25	
EPA 6020	Barium	0.084	mg/L	0.0010	10/06/23 06:25	
EPA 6020	Chromium	0.00025J	mg/L	0.0020	10/06/23 06:25	
EPA 6020	Cobalt	0.000047J	mg/L	0.0010	10/06/23 06:25	
EPA 6020	Lead	0.000060J	mg/L	0.0010	10/06/23 06:25	
EPA 6020	Molybdenum	0.0024	mg/L	0.0010	10/06/23 06:25	
SM 2540C	Total Dissolved Solids	205	mg/L	10.0	10/05/23 15:38	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	10/17/23 13:38	H3
50355221005	**FB-06-100224**					
EPA 6020	Barium	0.0015	mg/L	0.0010	10/06/23 06:28	C0
EPA 6020	Chromium	0.00026J	mg/L	0.0020	10/06/23 06:28	
EPA 6020	Lead	0.000046J	mg/L	0.0010	10/06/23 06:28	
SM 4500-H+B	pH at 25 Degrees C	8.3	Std. Units	0.10	10/17/23 13:38	H3

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 9056**
Description: 9056 IC Anions
Client: NiSource_WSP Golder
Date: November 17, 2023

General Information:
46 samples were analyzed for EPA 9056 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 753498

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50354221002,50354237004,50354238003

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3453058)
  - Chloride
- MSD (Lab ID: 3453059)
  - Chloride

QC Batch: 754174

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50354341004

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3456525)
  - Sulfate
- MSD (Lab ID: 3456526)
  - Sulfate

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 9056**
Description: 9056 IC Anions
Client: NiSource_WSP Golder
Date: November 17, 2023

QC Batch: 754343

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50354499010

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3457045)
  - Sulfate
- MSD (Lab ID: 3457046)
  - Sulfate

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: November 17, 2023

General Information:
46 samples were analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 753049

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50353962006

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3451445)
  - Calcium
- MSD (Lab ID: 3451446)
  - Calcium

QC Batch: 753052

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50353997003

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3451465)
  - Calcium

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: November 17, 2023

QC Batch: 753604

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50354251004

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MSD (Lab ID: 3453558)
  - Calcium

QC Batch: 754101

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50354356004,50354383001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3456314)
  - Boron
  - Calcium
- MSD (Lab ID: 3456315)
  - Calcium
- MSD (Lab ID: 3456414)
  - Calcium

QC Batch: 754484

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50354666001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MSD (Lab ID: 3457560)
  - Calcium

QC Batch: 755296

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50354927001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MSD (Lab ID: 3461723)
  - Calcium

QC Batch: 755562

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50355101002

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3462653)
  - Calcium

Additional Comments:

Analyte Comments:

QC Batch: 753604

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3453557)
  - Calcium

REPORT OF LABORATORY ANALYSIS

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(317)228-3100

PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: November 17, 2023

Analyte Comments:

QC Batch: 753604

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MSD (Lab ID: 3453558)
  - Calcium

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: NiSource_WSP Golder
Date: November 17, 2023

General Information:
46 samples were analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 755546

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50355101002

M3: Matrix spike recovery was outside laboratory control limits due to matrix interferences.

- MS (Lab ID: 3462586)
  - Selenium
- MSD (Lab ID: 3462587)
  - Selenium

Additional Comments:

Analyte Comments:

QC Batch: 754691

C0: Result confirmed by second analysis.

- FB-05-092523 (Lab ID: 50354669003)
  - Barium

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: NiSource_WSP Golder
Date: November 17, 2023

Analyte Comments:

QC Batch: 755244

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3461528)
  - Barium
- MSD (Lab ID: 3461529)
  - Barium

QC Batch: 755546

C0: Result confirmed by second analysis.

- FB-06-100224 (Lab ID: 50355221005)
  - Barium

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 7470**
Description: 7470 Mercury
Client: NiSource_WSP Golder
Date: November 17, 2023

General Information:
46 samples were analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 753840

1d: The opening CRDL recovery exceeded acceptance limits (132% recovery)

- FB-04-091923 (Lab ID: 50354261005)
  - Mercury
- FD-03-091923 (Lab ID: 50354261004)
  - Mercury
- GAMW-08-091923 (Lab ID: 50354261002)
  - Mercury
- GAMW-08B-091923 (Lab ID: 50354261003)
  - Mercury
- GAMW-51B-091923 (Lab ID: 50354261001)
  - Mercury
- GAMW-59-091923 (Lab ID: 50354261008)
  - Mercury

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **EPA 7470**
Description: 7470 Mercury
Client: NiSource_WSP Golder
Date: November 17, 2023

Analyte Comments:

QC Batch: 753840

1d: The opening CRDL recovery exceeded acceptance limits (132% recovery)

- GAMW-60-091923 (Lab ID: 50354261006)
  - Mercury
- GAMW-60B-091923 (Lab ID: 50354261007)
  - Mercury

QC Batch: 754285

2d: The opening CRDL recovery exceeded acceptance limits (143% recovery).

- FB-03-092123 (Lab ID: 50354467004)
  - Mercury
- FD-04-092123 (Lab ID: 50354467005)
  - Mercury
- GAMW-09-092123 (Lab ID: 50354467001)
  - Mercury
- GAMW-09B-092123 (Lab ID: 50354467002)
  - Mercury
- GAMW-18-092123 (Lab ID: 50354467003)
  - Mercury

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: NiSource_WSP Golder
Date: November 17, 2023

General Information:
46 samples were analyzed for SM 2540C by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 754177

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- DUP (Lab ID: 3456536)
  - Total Dissolved Solids
- FB-04-091923 (Lab ID: 50354261005)
  - Total Dissolved Solids

QC Batch: 754860

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-03-092123 (Lab ID: 50354467004)
  - Total Dissolved Solids

QC Batch: 755182

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-05-092523 (Lab ID: 50354669003)
  - Total Dissolved Solids

QC Batch: 755913

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-06-100224 (Lab ID: 50355221005)
  - Total Dissolved Solids

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: NiSource_WSP Golder
Date: November 17, 2023

General Information:
46 samples were analyzed for SM 4500-H+B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- FB-03-092123 (Lab ID: 50354467004)
- FB-04-091923 (Lab ID: 50354261005)
- FB-05-092523 (Lab ID: 50354669003)
- FB-06-100224 (Lab ID: 50355221005)
- FD-03-091923 (Lab ID: 50354261004)
- FD-04-092123 (Lab ID: 50354467005)
- FD-05-092223 (Lab ID: 50354592003)
- FD-06-100223 (Lab ID: 50355221004)
- GAMW-01-091323 (Lab ID: 50353874001)
- GAMW-01B-091323 (Lab ID: 50353874002)
- GAMW-03-091523 (Lab ID: 50354089003)
- GAMW-03B-091523 (Lab ID: 50354089004)
- GAMW-08-091923 (Lab ID: 50354261002)
- GAMW-08B-091923 (Lab ID: 50354261003)
- GAMW-09-092123 (Lab ID: 50354467001)
- GAMW-09B-092123 (Lab ID: 50354467002)
- GAMW-12-091523 (Lab ID: 50354089001)
- GAMW-12B-091523 (Lab ID: 50354089002)
- GAMW-13-091423 (Lab ID: 50353997003)
- GAMW-13B-091423 (Lab ID: 50353997004)
- GAMW-14-091423 (Lab ID: 50353997001)
- GAMW-14B-091423 (Lab ID: 50353997002)
- GAMW-16BR-092023 (Lab ID: 50354383002)
- GAMW-16R-092023 (Lab ID: 50354383001)
- GAMW-17-092023 (Lab ID: 50354383004)
- GAMW-17B-100223 (Lab ID: 50355221001)
- GAMW-18-092123 (Lab ID: 50354467003)
- GAMW-18B-092223 (Lab ID: 50354592001)
- GAMW-51-091823 (Lab ID: 50354175001)
- GAMW-51B-091923 (Lab ID: 50354261001)
- GAMW-52-092523 (Lab ID: 50354669005)
- GAMW-52B-092523 (Lab ID: 50354669006)
- GAMW-53-092823 (Lab ID: 50355025001)
- GAMW-53B-092823 (Lab ID: 50355025002)
- GAMW-54-092523 (Lab ID: 50354669001)
- GAMW-54B-092523 (Lab ID: 50354669002)
- GAMW-55B-092923 (Lab ID: 50355129002)

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353874

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: NiSource_WSP Golder
Date: November 17, 2023

H3: Sample was received or analysis requested beyond the recognized method holding time.
- GAMW-55R-092923 (Lab ID: 50355129001)
- GAMW-56-092223 (Lab ID: 50354592002)
- GAMW-56B-092523 (Lab ID: 50354669004)
- GAMW-59-091923 (Lab ID: 50354261008)
- GAMW-59B-092023 (Lab ID: 50354383003)
- GAMW-60-091923 (Lab ID: 50354261006)
- GAMW-60B-091923 (Lab ID: 50354261007)
- GAMW-68-100223 (Lab ID: 50355221002)
- GAMW-68B-100223 (Lab ID: 50355221003)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-01-091323 **Lab ID: 50353874001** Collected: 09/13/23 13:35 Received: 09/14/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**15.5**	mg/L	0.25	0.067	1		09/16/23 20:18	16887-00-6	
Fluoride	**0.32**	mg/L	0.050	0.017	1		09/16/23 20:18	16984-48-8	
Sulfate	**127**	mg/L	2.5	1.9	10		09/16/23 20:35	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**1.1**	mg/L	0.10	0.011	1	09/18/23 16:22	09/23/23 11:25	7440-42-8	
Calcium	**95.2**	mg/L	1.0	0.057	1	09/18/23 16:22	09/23/23 11:25	7440-70-2	
Lithium	**0.0053J**	mg/L	0.020	0.0051	1	09/18/23 16:22	09/23/23 11:25	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 11:57	7440-36-0	
Arsenic	**0.012**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 11:57	7440-38-2	
Barium	**0.058**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 11:57	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 11:57	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 11:57	7440-43-9	
Chromium	**0.00078J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 11:57	7440-47-3	
Cobalt	**0.0017**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 11:57	7440-48-4	
Lead	**0.000038J**	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 11:57	7439-92-1	
Molybdenum	**0.012**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 11:57	7439-98-7	
Selenium	**0.0043**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 11:57	7782-49-2	
Thallium	**0.000098J**	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 11:57	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/21/23 10:28	09/21/23 17:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**441**	mg/L	10.0	10.0	1		09/19/23 12:38		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		09/26/23 19:16		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-01B-091323 **Lab ID: 50353874002** Collected: 09/13/23 14:30 Received: 09/14/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**20.7**	mg/L	0.25	0.067	1		09/16/23 20:53	16887-00-6	
Fluoride	**0.14**	mg/L	0.050	0.017	1		09/16/23 20:53	16984-48-8	
Sulfate	**68.2**	mg/L	2.5	1.9	10		09/16/23 21:10	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.35**	mg/L	0.10	0.011	1	09/18/23 16:22	09/23/23 11:27	7440-42-8	
Calcium	**113**	mg/L	1.0	0.057	1	09/18/23 16:22	09/23/23 11:27	7440-70-2	
Lithium	**0.0082J**	mg/L	0.020	0.0051	1	09/18/23 16:22	09/23/23 11:27	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:00	7440-36-0	
Arsenic	**0.00034J**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:00	7440-38-2	
Barium	**0.18**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:00	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:00	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:00	7440-43-9	
Chromium	**0.00070J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:00	7440-47-3	
Cobalt	**0.00024J**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:00	7440-48-4	
Lead	**0.000064J**	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:00	7439-92-1	
Molybdenum	**0.0011**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:00	7439-98-7	
Selenium	**0.00035J**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/21/23 10:28	09/21/23 17:27	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**456**	mg/L	10.0	10.0	1		09/19/23 12:38		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		09/26/23 19:17		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-14-091423 **Lab ID: 50353997001** Collected: 09/14/23 10:05 Received: 09/15/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**7.9**	mg/L	0.25	0.067	1		09/17/23 07:07	16887-00-6	
Fluoride	**0.14**	mg/L	0.050	0.017	1		09/17/23 07:07	16984-48-8	
Sulfate	**24.1**	mg/L	0.25	0.19	1		09/17/23 07:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.16**	mg/L	0.10	0.012	1	09/18/23 16:00	09/23/23 01:13	7440-42-8	
Calcium	**81.0**	mg/L	1.0	0.14	1	09/18/23 16:00	09/23/23 01:13	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	09/18/23 16:00	09/23/23 01:13	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:03	7440-36-0	
Arsenic	**0.014**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:03	7440-38-2	
Barium	**0.051**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:03	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:03	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:03	7440-43-9	
Chromium	**0.00083J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:03	7440-47-3	
Cobalt	**0.016**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:03	7440-48-4	
Lead	**0.000067J**	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:03	7439-92-1	
Molybdenum	**0.0044**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:03	7439-98-7	
Selenium	**0.00033J**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:03	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 10:43	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**307**	mg/L	10.0	10.0	1		09/20/23 14:06		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		09/27/23 19:24		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-14B-091423 **Lab ID: 50353997002** Collected: 09/14/23 11:05 Received: 09/15/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**124**	mg/L	2.5	0.67	10		09/17/23 08:50	16887-00-6	
Fluoride	**0.23**	mg/L	0.050	0.017	1		09/17/23 08:33	16984-48-8	
Sulfate	**1140**	mg/L	25.0	19.0	100		09/17/23 09:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**3.5**	mg/L	0.10	0.012	1	09/18/23 16:00	09/23/23 01:15	7440-42-8	
Calcium	**174**	mg/L	1.0	0.14	1	09/18/23 16:00	09/23/23 01:15	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	09/18/23 16:00	09/23/23 01:15	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:13	7440-36-0	
Arsenic	**0.00071J**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:13	7440-38-2	
Barium	**0.083**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:13	7440-39-3	
Beryllium	**0.000065J**	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:13	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:13	7440-43-9	
Chromium	**0.0016J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:13	7440-47-3	
Cobalt	**0.00032J**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:13	7440-48-4	
Lead	**0.000057J**	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:13	7439-92-1	
Molybdenum	**0.018**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:13	7439-98-7	
Selenium	**0.00064J**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 10:46	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 25 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2230**	mg/L	40.0	40.0	1		09/20/23 14:06		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		09/27/23 19:25		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-13-091423 **Lab ID: 50353997003** Collected: 09/14/23 12:10 Received: 09/15/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**12.2**	mg/L	0.25	0.067	1		09/17/23 09:24	16887-00-6	
Fluoride	**0.26**	mg/L	0.050	0.017	1		09/17/23 09:24	16984-48-8	
Sulfate	**41.1**	mg/L	0.25	0.19	1		09/17/23 09:24	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.21**	mg/L	0.10	0.012	1	09/18/23 16:00	09/23/23 01:18	7440-42-8	
Calcium	**67.2**	mg/L	1.0	0.14	1	09/18/23 16:00	09/23/23 01:18	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	09/18/23 16:00	09/23/23 01:18	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:17	7440-36-0	
Arsenic	**0.0057**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:17	7440-38-2	
Barium	**0.11**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:17	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:17	7440-41-7	
Cadmium	**0.000069J**	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:17	7440-43-9	
Chromium	**0.00096J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:17	7440-47-3	
Cobalt	**0.00067J**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:17	7440-48-4	
Lead	ND	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:17	7439-92-1	
Molybdenum	**0.0033**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:17	7439-98-7	
Selenium	**0.00041J**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:17	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 10:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**299**	mg/L	10.0	10.0	1		09/20/23 14:06		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		09/27/23 19:26		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-13B-091423 **Lab ID: 50353997004** Collected: 09/14/23 13:25 Received: 09/15/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**25.9**	mg/L	2.5	0.67	10		09/17/23 10:33	16887-00-6	
Fluoride	**0.22**	mg/L	0.050	0.017	1		09/17/23 10:16	16984-48-8	
Sulfate	**125**	mg/L	2.5	1.9	10		09/17/23 10:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.63**	mg/L	0.10	0.012	1	09/18/23 16:00	09/23/23 01:30	7440-42-8	
Calcium	**78.0**	mg/L	1.0	0.14	1	09/18/23 16:00	09/23/23 01:30	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	09/18/23 16:00	09/23/23 01:30	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:33	7440-36-0	
Arsenic	**0.0011**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:33	7440-38-2	
Barium	**0.076**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:33	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:33	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:33	7440-43-9	
Chromium	**0.00053J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:33	7440-47-3	
Cobalt	**0.000093J**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:33	7440-48-4	
Lead	**0.00096J**	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:33	7439-92-1	
Molybdenum	**0.015**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:33	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 10:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**389**	mg/L	10.0	10.0	1		09/20/23 14:11		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		09/27/23 19:27		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-12-091523 **Lab ID: 50354089001** Collected: 09/15/23 10:15 Received: 09/16/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**4.5**	mg/L	0.25	0.067	1		09/22/23 09:23	16887-00-6	
Fluoride	**0.20**	mg/L	0.050	0.017	1		09/22/23 09:23	16984-48-8	
Sulfate	**15.0**	mg/L	0.25	0.19	1		09/22/23 09:23	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.062J**	mg/L	0.10	0.012	1	09/18/23 16:00	09/23/23 01:47	7440-42-8	
Calcium	**86.3**	mg/L	1.0	0.14	1	09/18/23 16:00	09/23/23 01:47	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	09/18/23 16:00	09/23/23 01:47	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:37	7440-36-0	
Arsenic	**0.024**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:37	7440-38-2	
Barium	**0.091**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:37	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:37	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:37	7440-43-9	
Chromium	**0.00050J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:37	7440-47-3	
Cobalt	**0.0019**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:37	7440-48-4	
Lead	ND	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:37	7439-92-1	
Molybdenum	**0.0037**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:37	7439-98-7	
Selenium	**0.00036J**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 11:05	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**338**	mg/L	10.0	10.0	1		09/21/23 15:22		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		10/02/23 12:51		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-12B-091523 **Lab ID: 50354089002** Collected: 09/15/23 11:00 Received: 09/16/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**22.5**	mg/L	2.5	0.67	10		09/22/23 10:32	16887-00-6	
Fluoride	**0.098J**	mg/L	0.050	0.017	1		09/22/23 10:15	16984-48-8	
Sulfate	**90.5**	mg/L	2.5	1.9	10		09/22/23 10:32	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.42**	mg/L	0.10	0.012	1	09/18/23 16:00	09/23/23 01:49	7440-42-8	
Calcium	**110**	mg/L	1.0	0.14	1	09/18/23 16:00	09/23/23 01:49	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	09/18/23 16:00	09/23/23 01:49	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:40	7440-36-0	
Arsenic	**0.00044J**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:40	7440-38-2	
Barium	**0.15**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:40	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:40	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:40	7440-43-9	
Chromium	**0.00038J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:40	7440-47-3	
Cobalt	**0.00019J**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:40	7440-48-4	
Lead	ND	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:40	7439-92-1	
Molybdenum	**0.0020**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:40	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:40	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 11:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**475**	mg/L	10.0	10.0	1		09/21/23 15:22		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		10/02/23 12:51		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-03-091523 **Lab ID: 50354089003** Collected: 09/15/23 12:10 Received: 09/16/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**4.1**	mg/L	0.25	0.067	1		09/22/23 13:24	16887-00-6	
Fluoride	**0.16**	mg/L	0.050	0.017	1		09/22/23 13:24	16984-48-8	
Sulfate	**34.9**	mg/L	0.25	0.19	1		09/22/23 13:24	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.12**	mg/L	0.10	0.012	1	09/18/23 16:00	09/23/23 01:52	7440-42-8	
Calcium	**69.4**	mg/L	1.0	0.14	1	09/18/23 16:00	09/23/23 01:52	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	09/18/23 16:00	09/23/23 01:52	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:50	7440-36-0	
Arsenic	**0.016**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:50	7440-38-2	
Barium	**0.071**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:50	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:50	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:50	7440-43-9	
Chromium	**0.00040J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:50	7440-47-3	
Cobalt	**0.00081J**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:50	7440-48-4	
Lead	**0.000041J**	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:50	7439-92-1	
Molybdenum	**0.0095**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:50	7439-98-7	
Selenium	**0.00025J**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 11:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**280**	mg/L	10.0	10.0	1		09/21/23 15:22		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		10/02/23 12:53		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-03B-091523 **Lab ID: 50354089004** Collected: 09/15/23 14:25 Received: 09/16/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**24.5**	mg/L	2.5	0.67	10		09/22/23 14:50	16887-00-6	
Fluoride	**0.21**	mg/L	0.050	0.017	1		09/22/23 14:32	16984-48-8	
Sulfate	**118**	mg/L	2.5	1.9	10		09/22/23 14:50	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.42**	mg/L	0.10	0.012	1	09/18/23 16:00	09/23/23 01:55	7440-42-8	
Calcium	**108**	mg/L	1.0	0.14	1	09/18/23 16:00	09/23/23 01:55	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	09/18/23 16:00	09/23/23 01:55	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:53	7440-36-0	
Arsenic	**0.00044J**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:53	7440-38-2	
Barium	**0.11**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:53	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:53	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:53	7440-43-9	
Chromium	**0.00054J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:53	7440-47-3	
Cobalt	**0.00020J**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:53	7440-48-4	
Lead	**0.00011J**	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:53	7439-92-1	
Molybdenum	**0.0059**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:53	7439-98-7	
Selenium	**0.00020J**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 11:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**477**	mg/L	10.0	10.0	1		09/21/23 15:23		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.9**	Std. Units	0.10	0.10	1		10/02/23 13:37		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-51-091823 **Lab ID: 50354175001** Collected: 09/18/23 14:15 Received: 09/19/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**3.9**	mg/L	0.25	0.067	1		09/23/23 21:20	16887-00-6	
Fluoride	**0.32**	mg/L	0.050	0.017	1		09/23/23 21:20	16984-48-8	
Sulfate	**282**	mg/L	2.5	1.9	10		09/22/23 09:20	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.67**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 11:53	7440-42-8	
Calcium	**178**	mg/L	1.0	0.057	1	09/20/23 22:07	09/23/23 11:53	7440-70-2	
Lithium	**0.0070J**	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 11:53	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/20/23 15:29	09/25/23 12:57	7440-36-0	
Arsenic	**0.0014**	mg/L	0.0010	0.000075	1	09/20/23 15:29	09/25/23 12:57	7440-38-2	
Barium	**0.12**	mg/L	0.0010	0.000077	1	09/20/23 15:29	09/25/23 12:57	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/20/23 15:29	09/25/23 12:57	7440-41-7	
Cadmium	**0.000011J**	mg/L	0.00020	0.000011	1	09/20/23 15:29	09/25/23 12:57	7440-43-9	
Chromium	**0.00037J**	mg/L	0.0020	0.00014	1	09/20/23 15:29	09/25/23 12:57	7440-47-3	
Cobalt	**0.0027**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:57	7440-48-4	
Lead	**0.000037J**	mg/L	0.0010	0.000029	1	09/20/23 15:29	09/25/23 12:57	7439-92-1	
Molybdenum	**0.012**	mg/L	0.0010	0.000046	1	09/20/23 15:29	09/25/23 12:57	7439-98-7	
Selenium	**0.00021J**	mg/L	0.0010	0.00020	1	09/20/23 15:29	09/25/23 12:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/20/23 15:29	09/25/23 12:57	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/21/23 19:15	09/22/23 11:22	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**782**	mg/L	10.0	10.0	1		09/21/23 14:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		10/02/23 13:43		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-51B-091923 **Lab ID: 50354261001** Collected: 09/19/23 11:05 Received: 09/20/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**44.7**	mg/L	2.5	0.67	10		09/30/23 18:33	16887-00-6	
Fluoride	**1.0**	mg/L	0.050	0.017	1		09/30/23 18:16	16984-48-8	
Sulfate	**1430**	mg/L	25.0	19.0	100		10/04/23 00:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**7.4**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 12:13	7440-42-8	
Calcium	**199**	mg/L	1.0	0.057	1	09/20/23 22:07	09/23/23 12:13	7440-70-2	
Lithium	**0.056**	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 12:13	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 15:37	7440-36-0	
Arsenic	**0.0042**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 15:37	7440-38-2	
Barium	**0.050**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 15:37	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/27/23 15:37	7440-41-7	
Cadmium	**0.000023J**	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 15:37	7440-43-9	
Chromium	**0.00055J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 15:37	7440-47-3	
Cobalt	**0.00036J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 15:37	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 15:37	7439-92-1	
Molybdenum	**0.13**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 15:37	7439-98-7	
Selenium	**0.00049J**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 15:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 15:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/22/23 11:58	09/24/23 19:56	7439-97-6	1d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 25 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2120**	mg/L	40.0	40.0	1		09/25/23 15:51		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.7**	Std. Units	0.10	0.10	1		10/02/23 14:03		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-08-091923 **Lab ID: 50354261002** Collected: 09/19/23 12:40 Received: 09/20/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**57.5**	mg/L	2.5	0.67	10		10/04/23 01:12	16887-00-6	
Fluoride	**1.7**	mg/L	0.050	0.017	1		09/26/23 19:13	16984-48-8	
Sulfate	**494**	mg/L	25.0	19.0	100		10/04/23 01:28	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**1.6**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 12:14	7440-42-8	
Calcium	**253**	mg/L	2.0	0.11	2	09/20/23 22:07	09/23/23 12:31	7440-70-2	
Lithium	**0.013J**	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 12:14	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00077J**	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 15:40	7440-36-0	
Arsenic	**0.0025**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 15:40	7440-38-2	
Barium	**0.051**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 15:40	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/27/23 15:40	7440-41-7	
Cadmium	**0.000080J**	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 15:40	7440-43-9	
Chromium	**0.00023J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 15:40	7440-47-3	
Cobalt	**0.0044**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 15:40	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 15:40	7439-92-1	
Molybdenum	**0.057**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 15:40	7439-98-7	
Selenium	**0.0081**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 15:40	7782-49-2	
Thallium	**0.00019J**	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 15:40	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/22/23 11:58	09/24/23 19:59	7439-97-6	1d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1290**	mg/L	20.0	20.0	1		09/25/23 15:51		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		10/02/23 14:04		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-08B-091923 **Lab ID: 50354261003** Collected: 09/19/23 13:55 Received: 09/20/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**219**	mg/L	25.0	6.7	100		09/30/23 19:24	16887-00-6	
Fluoride	**1.4**	mg/L	0.050	0.017	1		09/26/23 19:48	16984-48-8	
Sulfate	**1160**	mg/L	25.0	19.0	100		09/30/23 19:24	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**15.5**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 12:16	7440-42-8	
Calcium	**216**	mg/L	2.0	0.11	2	09/20/23 22:07	09/23/23 12:33	7440-70-2	
Lithium	**0.0091J**	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 12:16	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 15:51	7440-36-0	
Arsenic	**0.00049J**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 15:51	7440-38-2	
Barium	**0.050**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 15:51	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/27/23 15:51	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 15:51	7440-43-9	
Chromium	**0.00045J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 15:51	7440-47-3	
Cobalt	**0.00036J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 15:51	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 15:51	7439-92-1	
Molybdenum	**0.014**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 15:51	7439-98-7	
Selenium	**0.00044J**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 15:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 15:51	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/22/23 11:58	09/24/23 20:08	7439-97-6	1d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 25 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2310**	mg/L	40.0	40.0	1		09/25/23 15:51		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		10/02/23 14:05		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: FD-03-091923 **Lab ID: 50354261004** Collected: 09/19/23 12:00 Received: 09/20/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**46.4**	mg/L	2.5	0.67	10		10/04/23 02:00	16887-00-6	
Fluoride	**0.94**	mg/L	0.050	0.017	1		09/26/23 20:22	16984-48-8	
Sulfate	**1270**	mg/L	25.0	19.0	100		10/04/23 02:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**7.4**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 12:20	7440-42-8	
Calcium	**200**	mg/L	1.0	0.057	1	09/20/23 22:07	09/23/23 12:20	7440-70-2	
Lithium	**0.056**	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 12:20	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 15:54	7440-36-0	
Arsenic	**0.0042**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 15:54	7440-38-2	
Barium	**0.049**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 15:54	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/27/23 15:54	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 15:54	7440-43-9	
Chromium	**0.00056J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 15:54	7440-47-3	
Cobalt	**0.00040J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 15:54	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 15:54	7439-92-1	
Molybdenum	**0.13**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 15:54	7439-98-7	
Selenium	**0.00050J**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 15:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 15:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/22/23 11:58	09/24/23 20:11	7439-97-6	1d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 25 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2040**	mg/L	40.0	40.0	1		09/25/23 15:52		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		10/02/23 14:07		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: FB-04-091923 **Lab ID: 50354261005** Collected: 09/19/23 14:10 Received: 09/20/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		09/26/23 20:56	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		09/26/23 20:56	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		09/26/23 20:56	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.019J**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 12:22	7440-42-8	
Calcium	ND	mg/L	1.0	0.057	1	09/20/23 22:07	09/23/23 12:22	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 12:22	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 15:57	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 15:57	7440-38-2	
Barium	**0.00056J**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 15:57	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/27/23 15:57	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 15:57	7440-43-9	
Chromium	**0.00024J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 15:57	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 15:57	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 15:57	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 15:57	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 15:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 15:57	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/22/23 11:58	09/24/23 20:13	7439-97-6	1d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/25/23 15:52		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.8**	Std. Units	0.10	0.10	1		10/03/23 16:34		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-60-091923 **Lab ID: 50354261006** Collected: 09/19/23 11:05 Received: 09/20/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**27.1**	mg/L	2.5	0.67	10		09/30/23 20:50	16887-00-6	
Fluoride	**0.45**	mg/L	0.050	0.017	1		09/26/23 21:31	16984-48-8	
Sulfate	**517**	mg/L	25.0	19.0	100		09/30/23 21:08	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**1.5**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 12:23	7440-42-8	
Calcium	**267**	mg/L	2.0	0.11	2	09/20/23 22:07	09/23/23 12:34	7440-70-2	
Lithium	**0.0073J**	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 12:23	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00020J**	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 16:01	7440-36-0	
Arsenic	**0.00033J**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 16:01	7440-38-2	
Barium	**0.031**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 16:01	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/27/23 16:01	7440-41-7	
Cadmium	**0.000032J**	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 16:01	7440-43-9	
Chromium	**0.0019J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 16:01	7440-47-3	
Cobalt	**0.0011**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 16:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 16:01	7439-92-1	
Molybdenum	**0.019**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 16:01	7439-98-7	
Selenium	**0.0021**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 16:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 16:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/22/23 11:58	09/24/23 20:16	7439-97-6	1d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1160**	mg/L	20.0	20.0	1		09/25/23 15:52		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		10/03/23 16:26		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-60B-091923 **Lab ID: 50354261007** Collected: 09/19/23 12:20 Received: 09/20/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**9.2**	mg/L	0.25	0.067	1		09/26/23 22:39	16887-00-6	
Fluoride	**0.41**	mg/L	0.050	0.017	1		09/26/23 22:39	16984-48-8	
Sulfate	**1040**	mg/L	25.0	19.0	100		09/30/23 21:25	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**4.3**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 12:25	7440-42-8	
Calcium	**368**	mg/L	3.0	0.17	3	09/20/23 22:07	09/23/23 12:39	7440-70-2	
Lithium	**0.064**	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 12:25	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 16:15	7440-36-0	
Arsenic	**0.00019J**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 16:15	7440-38-2	
Barium	**0.062**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 16:15	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 09:46	7440-41-7	
Cadmium	**0.000022J**	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 16:15	7440-43-9	
Chromium	**0.00030J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 16:15	7440-47-3	
Cobalt	**0.00057J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 16:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 16:15	7439-92-1	
Molybdenum	**0.15**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 16:15	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 16:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 16:15	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/22/23 11:58	09/24/23 20:18	7439-97-6	1d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1730**	mg/L	20.0	20.0	1		09/25/23 15:52		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		10/03/23 16:28		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-59-091923 **Lab ID: 50354261008** Collected: 09/19/23 13:20 Received: 09/20/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**5.7**	mg/L	0.25	0.067	1		09/26/23 23:14	16887-00-6	
Fluoride	**0.70**	mg/L	0.050	0.017	1		09/26/23 23:14	16984-48-8	
Sulfate	**549**	mg/L	25.0	19.0	100		09/30/23 21:42	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.50**	mg/L	0.10	0.011	1	09/20/23 22:07	09/23/23 12:26	7440-42-8	
Calcium	**265**	mg/L	2.0	0.11	2	09/20/23 22:07	09/23/23 12:40	7440-70-2	
Lithium	**0.0099J**	mg/L	0.020	0.0051	1	09/20/23 22:07	09/23/23 12:26	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 16:18	7440-36-0	
Arsenic	**0.0012**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 16:18	7440-38-2	
Barium	**0.069**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 16:18	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 09:50	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 16:18	7440-43-9	
Chromium	**0.00038J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 16:18	7440-47-3	
Cobalt	**0.00083J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 16:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 16:18	7439-92-1	
Molybdenum	**0.025**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 16:18	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 16:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 16:18	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/22/23 11:58	09/24/23 20:21	7439-97-6	1d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1050**	mg/L	20.0	20.0	1		09/25/23 15:53		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		10/03/23 16:29		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-16R-092023 **Lab ID: 50354383001** Collected: 09/20/23 10:45 Received: 09/21/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**44.3**	mg/L	2.5	0.67	10		09/27/23 18:19	16887-00-6	
Fluoride	**0.65**	mg/L	0.050	0.017	1		09/27/23 18:02	16984-48-8	
Sulfate	**181**	mg/L	2.5	1.9	10		09/27/23 18:19	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**6.1**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:19	7440-42-8	
Calcium	**137**	mg/L	1.0	0.057	1	09/25/23 08:27	09/29/23 11:19	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:19	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 16:21	7440-36-0	
Arsenic	**0.0068**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 16:21	7440-38-2	
Barium	**0.038**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 16:21	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 09:53	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 16:21	7440-43-9	
Chromium	**0.00031J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 16:21	7440-47-3	
Cobalt	**0.0012**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 16:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 16:21	7439-92-1	
Molybdenum	**0.042**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 16:21	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 16:21	7782-49-2	
Thallium	**0.000066J**	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 16:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/25/23 19:55	09/26/23 09:42	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**656**	mg/L	10.0	10.0	1		09/27/23 12:20		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		10/03/23 16:35		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-16BR-092023 **Lab ID: 50354383002** Collected: 09/20/23 12:10 Received: 09/21/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**245**	mg/L	2.5	0.67	10		09/27/23 16:36	16887-00-6	
Fluoride	**0.75**	mg/L	0.050	0.017	1		09/27/23 16:19	16984-48-8	
Sulfate	**786**	mg/L	25.0	19.0	100		10/01/23 10:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**12.9**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:26	7440-42-8	
Calcium	**265**	mg/L	2.0	0.11	2	09/25/23 08:27	09/29/23 11:53	7440-70-2	
Lithium	**0.012J**	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:26	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 16:55	7440-36-0	
Arsenic	**0.0023**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 16:55	7440-38-2	
Barium	**0.026**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 16:55	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 10:20	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 16:55	7440-43-9	
Chromium	**0.00049J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 16:55	7440-47-3	
Cobalt	**0.00042J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 16:55	7440-48-4	
Lead	**0.00012J**	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 16:55	7439-92-1	
Molybdenum	**0.0060**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 16:55	7439-98-7	
Selenium	**0.00037J**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 16:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 16:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/25/23 19:55	09/26/23 09:54	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1860**	mg/L	20.0	20.0	1		09/27/23 12:21		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		10/03/23 16:41		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-59B-092023 **Lab ID: 50354383003** Collected: 09/20/23 11:45 Received: 09/21/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**14.0**	mg/L	0.25	0.067	1		09/27/23 16:53	16887-00-6	
Fluoride	**0.46**	mg/L	0.050	0.017	1		09/27/23 16:53	16984-48-8	
Sulfate	**853**	mg/L	25.0	19.0	100		10/01/23 10:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**3.0**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:28	7440-42-8	
Calcium	**184**	mg/L	1.0	0.057	1	09/25/23 08:27	09/29/23 11:28	7440-70-2	
Lithium	**0.0073J**	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:28	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 16:58	7440-36-0	
Arsenic	**0.00070J**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 16:58	7440-38-2	
Barium	**0.027**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 16:58	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 10:24	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 16:58	7440-43-9	
Chromium	**0.00067J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 16:58	7440-47-3	
Cobalt	**0.00035J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 16:58	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 16:58	7439-92-1	
Molybdenum	**0.043**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 16:58	7439-98-7	
Selenium	**0.00023J**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 16:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 16:58	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/25/23 19:55	09/26/23 09:57	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1500**	mg/L	20.0	20.0	1		09/27/23 12:21		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		10/03/23 16:39		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-17-092023 **Lab ID: 50354383004** Collected: 09/20/23 13:10 Received: 09/21/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**35.8**	mg/L	2.5	0.67	10		09/27/23 21:28	16887-00-6	
Fluoride	**1.4**	mg/L	0.050	0.017	1		09/27/23 21:11	16984-48-8	
Sulfate	**348**	mg/L	2.5	1.9	10		09/27/23 21:28	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**8.0**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:29	7440-42-8	
Calcium	**172**	mg/L	1.0	0.057	1	09/25/23 08:27	09/29/23 11:29	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:29	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00026J**	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 17:02	7440-36-0	
Arsenic	**0.0025**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 17:02	7440-38-2	
Barium	**0.059**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 17:02	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 10:27	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 17:02	7440-43-9	
Chromium	**0.00067J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 17:02	7440-47-3	
Cobalt	**0.00028J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 17:02	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 17:02	7439-92-1	
Molybdenum	**0.012**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 17:02	7439-98-7	
Selenium	**0.0072**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 17:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 17:02	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	09/25/23 19:55	09/26/23 09:59	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**843**	mg/L	10.0	10.0	1		09/27/23 12:21		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		10/03/23 16:43		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-09-092123 **Lab ID: 50354467001** Collected: 09/21/23 10:55 Received: 09/22/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**21.7**	mg/L	2.5	0.67	10		09/27/23 23:45	16887-00-6	
Fluoride	**0.27**	mg/L	0.050	0.017	1		09/27/23 23:28	16984-48-8	
Sulfate	**489**	mg/L	2.5	1.9	10		09/27/23 23:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**1.9**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:37	7440-42-8	
Calcium	**220**	mg/L	2.0	0.11	2	09/25/23 08:27	09/29/23 11:56	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:37	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 17:05	7440-36-0	
Arsenic	**0.00020J**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 17:05	7440-38-2	
Barium	**0.040**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 17:05	7440-39-3	
Beryllium	**0.00029**	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 10:31	7440-41-7	
Cadmium	**0.00010J**	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 17:05	7440-43-9	
Chromium	**0.00082J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/27/23 17:05	7440-47-3	
Cobalt	**0.00044J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 17:05	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 17:05	7439-92-1	
Molybdenum	**0.043**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 17:05	7439-98-7	
Selenium	**0.0079**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 17:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 17:05	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/26/23 10:43	09/26/23 19:07	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**957**	mg/L	10.0	10.0	1		09/28/23 15:35		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		10/04/23 14:31		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-09B-092123 **Lab ID: 50354467002** Collected: 09/21/23 12:05 Received: 09/22/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**126**	mg/L	2.5	0.67	10		09/28/23 00:54	16887-00-6	
Fluoride	**0.84**	mg/L	0.050	0.017	1		10/06/23 06:59	16984-48-8	
Sulfate	**944**	mg/L	25.0	19.0	100		10/01/23 11:18	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**8.5**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:42	7440-42-8	
Calcium	**291**	mg/L	2.0	0.11	2	09/25/23 08:27	09/29/23 12:01	7440-70-2	
Lithium	**0.0075J**	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:42	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 17:16	7440-36-0	
Arsenic	**0.0018**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 17:16	7440-38-2	
Barium	**0.058**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 17:16	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 10:41	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 17:16	7440-43-9	
Chromium	**0.00025J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/28/23 10:41	7440-47-3	
Cobalt	**0.00078J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 17:16	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 17:16	7439-92-1	
Molybdenum	**0.016**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 17:16	7439-98-7	
Selenium	**0.00060J**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 17:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 17:16	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/26/23 10:43	09/26/23 19:09	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1740**	mg/L	20.0	20.0	1		09/28/23 15:35		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		10/04/23 14:32		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-18-092123 **Lab ID: 50354467003** Collected: 09/21/23 13:30 Received: 09/22/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**70.7**	mg/L	2.5	0.67	10		09/28/23 01:28	16887-00-6	
Fluoride	**0.13**	mg/L	0.050	0.017	1		09/28/23 01:11	16984-48-8	
Sulfate	**967**	mg/L	25.0	19.0	100		10/01/23 11:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**5.4**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:44	7440-42-8	
Calcium	**395**	mg/L	2.0	0.11	2	09/25/23 08:27	09/29/23 12:03	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:44	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00012J**	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 17:19	7440-36-0	
Arsenic	**0.00082J**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 17:19	7440-38-2	
Barium	**0.036**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 17:19	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 10:44	7440-41-7	
Cadmium	**0.00010J**	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 17:19	7440-43-9	
Chromium	**0.0010J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/28/23 10:44	7440-47-3	
Cobalt	**0.00066J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 17:19	7440-48-4	
Lead	**0.00021J**	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 17:19	7439-92-1	
Molybdenum	**0.18**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 17:19	7439-98-7	
Selenium	**0.050**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 17:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 17:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/26/23 10:43	09/26/23 19:19	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1810**	mg/L	20.0	20.0	1		09/28/23 15:36		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		10/04/23 14:33		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: FB-03-092123 **Lab ID: 50354467004** Collected: 09/21/23 10:55 Received: 09/22/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		09/28/23 01:45	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		09/28/23 01:45	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		09/28/23 01:45	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.022J**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:45	7440-42-8	
Calcium	ND	mg/L	1.0	0.057	1	09/25/23 08:27	09/29/23 11:45	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:45	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 17:23	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 17:23	7440-38-2	
Barium	**0.00042J**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 17:23	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 10:51	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 17:23	7440-43-9	
Chromium	**0.00027J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/28/23 10:51	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 17:23	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 17:23	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 17:23	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 17:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 17:23	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/26/23 10:43	09/26/23 19:22	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/28/23 15:36		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.5**	Std. Units	0.10	0.10	1		10/04/23 14:34		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: FD-04-092123 **Lab ID: 50354467005** Collected: 09/21/23 12:00 Received: 09/22/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**70.4**	mg/L	2.5	0.67	10		09/28/23 02:37	16887-00-6	
Fluoride	**0.13**	mg/L	0.050	0.017	1		09/28/23 02:20	16984-48-8	
Sulfate	**958**	mg/L	25.0	19.0	100		10/01/23 11:49	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**5.6**	mg/L	0.10	0.011	1	09/25/23 08:27	09/29/23 11:47	7440-42-8	
Calcium	**398**	mg/L	2.0	0.11	2	09/25/23 08:27	09/29/23 12:05	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/25/23 08:27	09/29/23 11:47	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00012J**	mg/L	0.0010	0.000080	1	09/26/23 07:30	09/27/23 17:26	7440-36-0	
Arsenic	**0.00084J**	mg/L	0.0010	0.00012	1	09/26/23 07:30	09/27/23 17:26	7440-38-2	
Barium	**0.036**	mg/L	0.0010	0.000065	1	09/26/23 07:30	09/27/23 17:26	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 07:30	09/28/23 10:48	7440-41-7	
Cadmium	**0.00011J**	mg/L	0.00020	0.000016	1	09/26/23 07:30	09/27/23 17:26	7440-43-9	
Chromium	**0.0011J**	mg/L	0.0020	0.00018	1	09/26/23 07:30	09/28/23 10:48	7440-47-3	
Cobalt	**0.00068J**	mg/L	0.0010	0.000071	1	09/26/23 07:30	09/27/23 17:26	7440-48-4	
Lead	**0.00024J**	mg/L	0.0010	0.000068	1	09/26/23 07:30	09/27/23 17:26	7439-92-1	
Molybdenum	**0.18**	mg/L	0.0010	0.000074	1	09/26/23 07:30	09/27/23 17:26	7439-98-7	
Selenium	**0.049**	mg/L	0.0010	0.00019	1	09/26/23 07:30	09/27/23 17:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 07:30	09/27/23 17:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/26/23 10:43	09/26/23 19:24	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1810**	mg/L	20.0	20.0	1		09/28/23 15:36		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		10/04/23 14:34		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-18B-092223 **Lab ID: 50354592001** Collected: 09/22/23 10:40 Received: 09/23/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**133**	mg/L	25.0	6.7	100		10/10/23 10:47	16887-00-6	
Fluoride	**0.98**	mg/L	0.050	0.017	1		10/01/23 20:10	16984-48-8	
Sulfate	**1110**	mg/L	25.0	19.0	100		10/10/23 10:47	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**11.5**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 16:26	7440-42-8	
Calcium	**354**	mg/L	3.0	0.17	3	09/27/23 08:13	10/05/23 17:09	7440-70-2	
Lithium	**0.021**	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 16:26	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	09/26/23 15:25	10/02/23 20:42	7440-36-0	
Arsenic	**0.0027**	mg/L	0.0010	0.00012	1	09/26/23 15:25	10/02/23 20:42	7440-38-2	
Barium	**0.027**	mg/L	0.0010	0.000065	1	09/26/23 15:25	10/02/23 20:42	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 15:25	10/02/23 20:42	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	09/26/23 15:25	10/02/23 20:42	7440-43-9	
Chromium	**0.00029J**	mg/L	0.0020	0.00018	1	09/26/23 15:25	10/02/23 20:42	7440-47-3	
Cobalt	**0.00044J**	mg/L	0.0010	0.000071	1	09/26/23 15:25	10/02/23 20:42	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 15:25	10/02/23 20:42	7439-92-1	
Molybdenum	**0.015**	mg/L	0.0010	0.000074	1	09/26/23 15:25	10/02/23 20:42	7439-98-7	
Selenium	**0.00024J**	mg/L	0.0010	0.00019	1	09/26/23 15:25	10/02/23 20:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 15:25	10/02/23 20:42	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 21:35	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2090**	mg/L	20.0	20.0	1		09/28/23 15:57		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.1**	Std. Units	0.10	0.10	1		10/04/23 14:46		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-56-092223 **Lab ID: 50354592002** Collected: 09/22/23 12:00 Received: 09/23/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**12.5**	mg/L	0.25	0.067	1		10/01/23 21:19	16887-00-6	
Fluoride	**0.67**	mg/L	0.050	0.017	1		10/01/23 21:19	16984-48-8	
Sulfate	**65.8**	mg/L	2.5	1.9	10		10/01/23 21:37	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.36**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 16:27	7440-42-8	
Calcium	**100**	mg/L	1.0	0.057	1	09/27/23 08:13	10/05/23 16:27	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 16:27	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00015J**	mg/L	0.0010	0.000080	1	09/26/23 15:25	10/02/23 20:45	7440-36-0	
Arsenic	**0.00091J**	mg/L	0.0010	0.00012	1	09/26/23 15:25	10/02/23 20:45	7440-38-2	
Barium	**0.033**	mg/L	0.0010	0.000065	1	09/26/23 15:25	10/02/23 20:45	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 15:25	10/02/23 20:45	7440-41-7	
Cadmium	**0.000030J**	mg/L	0.00020	0.000016	1	09/26/23 15:25	10/02/23 20:45	7440-43-9	
Chromium	**0.00033J**	mg/L	0.0020	0.00018	1	09/26/23 15:25	10/02/23 20:45	7440-47-3	
Cobalt	**0.0023**	mg/L	0.0010	0.000071	1	09/26/23 15:25	10/02/23 20:45	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 15:25	10/02/23 20:45	7439-92-1	
Molybdenum	**0.0097**	mg/L	0.0010	0.000074	1	09/26/23 15:25	10/02/23 20:45	7439-98-7	
Selenium	**0.00078J**	mg/L	0.0010	0.00019	1	09/26/23 15:25	10/02/23 20:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 15:25	10/02/23 20:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 21:43	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**435**	mg/L	10.0	10.0	1		09/28/23 15:57		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		10/04/23 14:47		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: FD-05-092223 **Lab ID: 50354592003** Collected: 09/22/23 12:00 Received: 09/23/23 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**12.5**	mg/L	0.25	0.067	1		10/01/23 21:54	16887-00-6	
Fluoride	**0.68**	mg/L	0.050	0.017	1		10/01/23 21:54	16984-48-8	
Sulfate	**66.5**	mg/L	2.5	1.9	10		10/01/23 22:11	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.35**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 16:29	7440-42-8	
Calcium	**101**	mg/L	1.0	0.057	1	09/27/23 08:13	10/05/23 16:29	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 16:29	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00014J**	mg/L	0.0010	0.000080	1	09/26/23 15:25	10/02/23 20:49	7440-36-0	
Arsenic	**0.00087J**	mg/L	0.0010	0.00012	1	09/26/23 15:25	10/02/23 20:49	7440-38-2	
Barium	**0.032**	mg/L	0.0010	0.000065	1	09/26/23 15:25	10/02/23 20:49	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	09/26/23 15:25	10/02/23 20:49	7440-41-7	
Cadmium	**0.000028J**	mg/L	0.00020	0.000016	1	09/26/23 15:25	10/02/23 20:49	7440-43-9	
Chromium	**0.00030J**	mg/L	0.0020	0.00018	1	09/26/23 15:25	10/02/23 20:49	7440-47-3	
Cobalt	**0.0023**	mg/L	0.0010	0.000071	1	09/26/23 15:25	10/02/23 20:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	09/26/23 15:25	10/02/23 20:49	7439-92-1	
Molybdenum	**0.0095**	mg/L	0.0010	0.000074	1	09/26/23 15:25	10/02/23 20:49	7439-98-7	
Selenium	**0.00079J**	mg/L	0.0010	0.00019	1	09/26/23 15:25	10/02/23 20:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	09/26/23 15:25	10/02/23 20:49	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 21:50	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**391**	mg/L	10.0	10.0	1		09/28/23 16:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**6.8**	Std. Units	0.10	0.10	1		10/04/23 14:48		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-54-092523 **Lab ID: 50354669001** Collected: 09/25/23 11:05 Received: 09/26/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**17.8**	mg/L	2.5	0.67	10		10/03/23 16:38	16887-00-6	
Fluoride	**0.35**	mg/L	0.050	0.017	1		10/03/23 16:21	16984-48-8	
Sulfate	**192**	mg/L	2.5	1.9	10		10/03/23 16:38	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.80**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 16:55	7440-42-8	
Calcium	**128**	mg/L	1.0	0.057	1	09/27/23 08:13	10/05/23 16:55	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 16:55	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/28/23 07:08	09/29/23 21:58	7440-36-0	
Arsenic	**0.015**	mg/L	0.0010	0.000075	1	09/28/23 07:08	09/29/23 21:58	7440-38-2	
Barium	**0.053**	mg/L	0.0010	0.000077	1	09/28/23 07:08	09/29/23 21:58	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/28/23 07:08	09/29/23 21:58	7440-41-7	
Cadmium	**0.000026J**	mg/L	0.00020	0.000011	1	09/28/23 07:08	09/29/23 21:58	7440-43-9	
Chromium	**0.00070J**	mg/L	0.0020	0.00014	1	09/28/23 07:08	09/29/23 21:58	7440-47-3	
Cobalt	**0.00068J**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 21:58	7440-48-4	
Lead	**0.000063J**	mg/L	0.0010	0.000029	1	09/28/23 07:08	09/29/23 21:58	7439-92-1	
Molybdenum	**0.040**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 21:58	7439-98-7	
Selenium	**0.00055J**	mg/L	0.0010	0.00020	1	09/28/23 07:08	09/29/23 21:58	7782-49-2	
Thallium	**0.00012J**	mg/L	0.0010	0.000040	1	09/28/23 07:08	09/29/23 21:58	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 22:02	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**562**	mg/L	10.0	10.0	1		09/30/23 14:31		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		10/04/23 16:43		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-54B-092523 **Lab ID: 50354669002** Collected: 09/25/23 12:45 Received: 09/26/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**129**	mg/L	25.0	6.7	100		10/10/23 10:31	16887-00-6	
Fluoride	**0.33**	mg/L	0.050	0.017	1		10/10/23 10:15	16984-48-8	
Sulfate	**500**	mg/L	25.0	19.0	100		10/10/23 10:31	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**5.7**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 16:57	7440-42-8	
Calcium	**221**	mg/L	2.0	0.11	2	09/27/23 08:13	10/05/23 17:10	7440-70-2	
Lithium	**0.0065J**	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 16:57	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/28/23 07:08	09/29/23 22:28	7440-36-0	
Arsenic	**0.0038**	mg/L	0.0010	0.000075	1	09/28/23 07:08	09/29/23 22:28	7440-38-2	
Barium	**0.080**	mg/L	0.0010	0.000077	1	09/28/23 07:08	09/29/23 22:28	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/28/23 07:08	09/29/23 22:28	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/28/23 07:08	09/29/23 22:28	7440-43-9	
Chromium	**0.00040J**	mg/L	0.0020	0.00014	1	09/28/23 07:08	09/29/23 22:28	7440-47-3	
Cobalt	**0.00019J**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 22:28	7440-48-4	
Lead	**0.000035J**	mg/L	0.0010	0.000029	1	09/28/23 07:08	09/29/23 22:28	7439-92-1	
Molybdenum	**0.0092**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 22:28	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00020	1	09/28/23 07:08	09/29/23 22:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/28/23 07:08	09/29/23 22:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 22:05	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1210**	mg/L	20.0	20.0	1		09/30/23 14:32		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		10/04/23 16:44		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: FB-05-092523 **Lab ID: 50354669003** Collected: 09/25/23 13:20 Received: 09/26/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		10/03/23 17:30	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		10/03/23 17:30	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		10/03/23 17:30	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.013J**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 16:58	7440-42-8	
Calcium	ND	mg/L	1.0	0.057	1	09/27/23 08:13	10/05/23 16:58	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 16:58	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/28/23 07:08	09/29/23 21:55	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.000075	1	09/28/23 07:08	09/29/23 21:55	7440-38-2	
Barium	**0.0010**	mg/L	0.0010	0.000077	1	09/28/23 07:08	09/29/23 21:55	7440-39-3	C0
Beryllium	ND	mg/L	0.00020	0.000035	1	09/28/23 07:08	09/29/23 21:55	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/28/23 07:08	09/29/23 21:55	7440-43-9	
Chromium	**0.00029J**	mg/L	0.0020	0.00014	1	09/28/23 07:08	09/29/23 21:55	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 21:55	7440-48-4	
Lead	**0.000034J**	mg/L	0.0010	0.000029	1	09/28/23 07:08	09/29/23 21:55	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 21:55	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00020	1	09/28/23 07:08	09/29/23 21:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/28/23 07:08	09/29/23 21:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 22:14	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/30/23 14:32		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.7**	Std. Units	0.10	0.10	1		10/04/23 16:45		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-56B-092523 **Lab ID: 50354669004** Collected: 09/25/23 10:35 Received: 09/26/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**58.4**	mg/L	2.5	0.67	10		10/03/23 18:57	16887-00-6	
Fluoride	**0.44**	mg/L	0.050	0.017	1		10/03/23 18:40	16984-48-8	
Sulfate	**368**	mg/L	2.5	1.9	10		10/03/23 18:57	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.21**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 17:00	7440-42-8	
Calcium	**62.2**	mg/L	1.0	0.057	1	09/27/23 08:13	10/05/23 17:00	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 17:00	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/28/23 07:08	09/29/23 22:32	7440-36-0	
Arsenic	**0.00049J**	mg/L	0.0010	0.000075	1	09/28/23 07:08	09/29/23 22:32	7440-38-2	
Barium	**0.082**	mg/L	0.0010	0.000077	1	09/28/23 07:08	09/29/23 22:32	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/28/23 07:08	09/29/23 22:32	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/28/23 07:08	09/29/23 22:32	7440-43-9	
Chromium	**0.00041J**	mg/L	0.0020	0.00014	1	09/28/23 07:08	09/29/23 22:32	7440-47-3	
Cobalt	**0.00017J**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 22:32	7440-48-4	
Lead	ND	mg/L	0.0010	0.000029	1	09/28/23 07:08	09/29/23 22:32	7439-92-1	
Molybdenum	**0.0092**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 22:32	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00020	1	09/28/23 07:08	09/29/23 22:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/28/23 07:08	09/29/23 22:32	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 22:17	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**924**	mg/L	20.0	20.0	1		09/30/23 14:32		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		10/04/23 16:46		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-52-092523 **Lab ID: 50354669005** Collected: 09/25/23 11:40 Received: 09/26/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**70.3**	mg/L	2.5	0.67	10		10/03/23 19:32	16887-00-6	
Fluoride	**0.42**	mg/L	0.050	0.017	1		10/03/23 19:15	16984-48-8	
Sulfate	**65.5**	mg/L	2.5	1.9	10		10/03/23 19:32	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**3.5**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 17:01	7440-42-8	
Calcium	**160**	mg/L	1.0	0.057	1	09/27/23 08:13	10/05/23 17:01	7440-70-2	
Lithium	**0.0073J**	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 17:01	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/28/23 07:08	09/29/23 22:35	7440-36-0	
Arsenic	**0.00017J**	mg/L	0.0010	0.000075	1	09/28/23 07:08	09/29/23 22:35	7440-38-2	
Barium	**0.014**	mg/L	0.0010	0.000077	1	09/28/23 07:08	09/29/23 22:35	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/28/23 07:08	09/29/23 22:35	7440-41-7	
Cadmium	**0.000016J**	mg/L	0.00020	0.000011	1	09/28/23 07:08	09/29/23 22:35	7440-43-9	
Chromium	**0.00028J**	mg/L	0.0020	0.00014	1	09/28/23 07:08	09/29/23 22:35	7440-47-3	
Cobalt	**0.00011J**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 22:35	7440-48-4	
Lead	ND	mg/L	0.0010	0.000029	1	09/28/23 07:08	09/29/23 22:35	7439-92-1	
Molybdenum	**0.0044**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 22:35	7439-98-7	
Selenium	**0.00031J**	mg/L	0.0010	0.00020	1	09/28/23 07:08	09/29/23 22:35	7782-49-2	
Thallium	**0.00014J**	mg/L	0.0010	0.000040	1	09/28/23 07:08	09/29/23 22:35	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 22:19	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**379**	mg/L	10.0	10.0	1		09/30/23 14:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		10/04/23 16:47		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-52B-092523 **Lab ID: 50354669006** Collected: 09/25/23 13:05 Received: 09/26/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**97.8**	mg/L	2.5	0.67	10		10/03/23 20:07	16887-00-6	
Fluoride	**0.71**	mg/L	0.050	0.017	1		10/03/23 19:49	16984-48-8	
Sulfate	**82.3**	mg/L	2.5	1.9	10		10/03/23 20:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.094J**	mg/L	0.10	0.011	1	09/27/23 08:13	10/05/23 17:07	7440-42-8	
Calcium	**64.1**	mg/L	1.0	0.057	1	09/27/23 08:13	10/05/23 17:07	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	09/27/23 08:13	10/05/23 17:07	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	09/28/23 07:08	09/29/23 22:38	7440-36-0	
Arsenic	**0.00061J**	mg/L	0.0010	0.000075	1	09/28/23 07:08	09/29/23 22:38	7440-38-2	
Barium	**0.084**	mg/L	0.0010	0.000077	1	09/28/23 07:08	09/29/23 22:38	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	09/28/23 07:08	09/29/23 22:38	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000011	1	09/28/23 07:08	09/29/23 22:38	7440-43-9	
Chromium	**0.00034J**	mg/L	0.0020	0.00014	1	09/28/23 07:08	09/29/23 22:38	7440-47-3	
Cobalt	**0.000060J**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 22:38	7440-48-4	
Lead	**0.000047J**	mg/L	0.0010	0.000029	1	09/28/23 07:08	09/29/23 22:38	7439-92-1	
Molybdenum	**0.012**	mg/L	0.0010	0.000046	1	09/28/23 07:08	09/29/23 22:38	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00020	1	09/28/23 07:08	09/29/23 22:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	09/28/23 07:08	09/29/23 22:38	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	09/29/23 10:18	10/01/23 22:22	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**459**	mg/L	10.0	10.0	1		09/30/23 14:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.1**	Std. Units	0.10	0.10	1		10/04/23 16:48		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-53-092823 **Lab ID: 50355025001** Collected: 09/28/23 11:15 Received: 09/29/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.7**	mg/L	0.25	0.067	1		10/12/23 21:25	16887-00-6	
Fluoride	**0.053J**	mg/L	0.050	0.017	1		10/12/23 21:25	16984-48-8	
Sulfate	**44.3**	mg/L	2.5	1.9	10		10/12/23 21:42	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.11**	mg/L	0.10	0.012	1	10/02/23 15:37	10/12/23 11:01	7440-42-8	
Calcium	**42.4**	mg/L	1.0	0.14	1	10/02/23 15:37	10/12/23 11:01	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	10/02/23 15:37	10/12/23 11:01	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00064J**	mg/L	0.0010	0.000044	1	10/03/23 07:08	10/04/23 05:45	7440-36-0	
Arsenic	**0.0012**	mg/L	0.0010	0.000064	1	10/03/23 07:08	10/04/23 05:45	7440-38-2	
Barium	**0.028**	mg/L	0.0010	0.000067	1	10/03/23 07:08	10/04/23 05:45	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 07:08	10/04/23 05:45	7440-41-7	
Cadmium	**0.000028J**	mg/L	0.00020	0.000016	1	10/03/23 07:08	10/04/23 05:45	7440-43-9	
Chromium	**0.0013J**	mg/L	0.0020	0.00015	1	10/03/23 07:08	10/04/23 05:45	7440-47-3	
Cobalt	**0.00051J**	mg/L	0.0010	0.000024	1	10/03/23 07:08	10/04/23 05:45	7440-48-4	
Lead	**0.00048J**	mg/L	0.0010	0.000019	1	10/03/23 07:08	10/04/23 05:45	7439-92-1	
Molybdenum	**0.015**	mg/L	0.0010	0.000031	1	10/03/23 07:08	10/04/23 05:45	7439-98-7	
Selenium	**0.00086J**	mg/L	0.0010	0.00023	1	10/03/23 07:08	10/04/23 05:45	7782-49-2	
Thallium	**0.000067J**	mg/L	0.0010	0.000042	1	10/03/23 07:08	10/04/23 05:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/09/23 13:27	10/11/23 08:47	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**211**	mg/L	10.0	10.0	1		10/05/23 15:23		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.0**	Std. Units	0.10	0.10	1		10/13/23 14:33		H3

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-53B-092823 **Lab ID: 50355025002** Collected: 09/28/23 12:05 Received: 09/29/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**123**	mg/L	25.0	6.7	100		10/11/23 17:36	16887-00-6	
Fluoride	**0.39**	mg/L	0.050	0.017	1		10/11/23 17:03	16984-48-8	
Sulfate	**498**	mg/L	25.0	19.0	100		10/11/23 17:36	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**4.7**	mg/L	0.10	0.012	1	10/02/23 15:37	10/12/23 11:03	7440-42-8	
Calcium	**199**	mg/L	1.0	0.14	1	10/02/23 15:37	10/12/23 11:03	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	10/02/23 15:37	10/12/23 11:03	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000044	1	10/03/23 07:08	10/04/23 05:48	7440-36-0	
Arsenic	**0.00089J**	mg/L	0.0010	0.000064	1	10/03/23 07:08	10/04/23 05:48	7440-38-2	
Barium	**0.071**	mg/L	0.0010	0.000067	1	10/03/23 07:08	10/04/23 05:48	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 07:08	10/04/23 05:48	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/03/23 07:08	10/04/23 05:48	7440-43-9	
Chromium	**0.00024J**	mg/L	0.0020	0.00015	1	10/03/23 07:08	10/04/23 05:48	7440-47-3	
Cobalt	**0.00022J**	mg/L	0.0010	0.000024	1	10/03/23 07:08	10/04/23 05:48	7440-48-4	
Lead	**0.000024J**	mg/L	0.0010	0.000019	1	10/03/23 07:08	10/04/23 05:48	7439-92-1	
Molybdenum	**0.0065**	mg/L	0.0010	0.000031	1	10/03/23 07:08	10/04/23 05:48	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/03/23 07:08	10/04/23 05:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/03/23 07:08	10/04/23 05:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/09/23 13:27	10/11/23 08:49	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1280**	mg/L	20.0	20.0	1		10/05/23 15:23		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		10/13/23 14:35		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-55R-092923 **Lab ID: 50355129001** Collected: 09/29/23 11:20 Received: 09/30/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**40.6**	mg/L	2.5	0.67	10		10/12/23 00:05	16887-00-6	
Fluoride	**0.75**	mg/L	0.050	0.017	1		10/11/23 23:48	16984-48-8	
Sulfate	**368**	mg/L	2.5	1.9	10		10/12/23 00:05	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.014J**	mg/L	0.10	0.012	1	10/02/23 15:37	10/12/23 11:59	7440-42-8	
Calcium	ND	mg/L	1.0	0.14	1	10/02/23 15:37	10/12/23 11:59	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	10/02/23 15:37	10/12/23 11:59	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000044	1	10/03/23 07:08	10/04/23 06:12	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.000064	1	10/03/23 07:08	10/04/23 06:12	7440-38-2	
Barium	**0.00044J**	mg/L	0.0010	0.000067	1	10/03/23 07:08	10/04/23 06:12	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 07:08	10/04/23 06:12	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/03/23 07:08	10/04/23 06:12	7440-43-9	
Chromium	**0.00028J**	mg/L	0.0020	0.00015	1	10/03/23 07:08	10/04/23 06:12	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000024	1	10/03/23 07:08	10/04/23 06:12	7440-48-4	
Lead	**0.000026J**	mg/L	0.0010	0.000019	1	10/03/23 07:08	10/04/23 06:12	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000031	1	10/03/23 07:08	10/04/23 06:12	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/03/23 07:08	10/04/23 06:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/03/23 07:08	10/04/23 06:12	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/09/23 18:57	10/11/23 08:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**806**	mg/L	10.0	10.0	1		10/05/23 15:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		10/16/23 14:10		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-55B-092923 **Lab ID: 50355129002** Collected: 09/29/23 12:50 Received: 09/30/23 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**124**	mg/L	2.5	0.67	10		10/12/23 00:53	16887-00-6	
Fluoride	**0.24**	mg/L	0.050	0.017	1		10/12/23 00:37	16984-48-8	
Sulfate	**508**	mg/L	25.0	19.0	100		10/12/23 01:09	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**7.6**	mg/L	0.10	0.012	1	10/02/23 15:37	10/12/23 12:02	7440-42-8	
Calcium	**191**	mg/L	1.0	0.14	1	10/02/23 15:37	10/12/23 12:02	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	10/02/23 15:37	10/12/23 12:02	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000044	1	10/03/23 07:08	10/04/23 06:15	7440-36-0	
Arsenic	**0.00018J**	mg/L	0.0010	0.000064	1	10/03/23 07:08	10/04/23 06:15	7440-38-2	
Barium	**0.054**	mg/L	0.0010	0.000067	1	10/03/23 07:08	10/04/23 06:15	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 07:08	10/04/23 06:15	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/03/23 07:08	10/04/23 06:15	7440-43-9	
Chromium	**0.00024J**	mg/L	0.0020	0.00015	1	10/03/23 07:08	10/04/23 06:15	7440-47-3	
Cobalt	**0.00021J**	mg/L	0.0010	0.000024	1	10/03/23 07:08	10/04/23 06:15	7440-48-4	
Lead	**0.000022J**	mg/L	0.0010	0.000019	1	10/03/23 07:08	10/04/23 06:15	7439-92-1	
Molybdenum	**0.0065**	mg/L	0.0010	0.000031	1	10/03/23 07:08	10/04/23 06:15	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/03/23 07:08	10/04/23 06:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/03/23 07:08	10/04/23 06:15	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/09/23 18:57	10/11/23 08:27	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1190**	mg/L	20.0	20.0	1		10/05/23 15:25		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.2**	Std. Units	0.10	0.10	1		10/16/23 14:11		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-17B-100223 **Lab ID: 50355221001** Collected: 10/02/23 11:05 Received: 10/03/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**156**	mg/L	2.5	0.67	10		10/14/23 00:19	16887-00-6	
Fluoride	**0.66**	mg/L	0.050	0.017	1		10/14/23 00:02	16984-48-8	
Sulfate	**834**	mg/L	25.0	19.0	100		10/14/23 00:36	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**11.4**	mg/L	0.10	0.012	1	10/04/23 07:57	10/14/23 16:14	7440-42-8	
Calcium	**288**	mg/L	2.0	0.29	2	10/04/23 07:57	10/14/23 16:35	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	10/04/23 07:57	10/14/23 16:14	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000044	1	10/03/23 17:27	10/06/23 06:08	7440-36-0	
Arsenic	**0.0028**	mg/L	0.0010	0.000064	1	10/03/23 17:27	10/06/23 06:08	7440-38-2	
Barium	**0.069**	mg/L	0.0010	0.000067	1	10/03/23 17:27	10/06/23 06:08	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 17:27	10/06/23 06:08	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/03/23 17:27	10/06/23 06:08	7440-43-9	
Chromium	**0.00027J**	mg/L	0.0020	0.00015	1	10/03/23 17:27	10/06/23 06:08	7440-47-3	
Cobalt	**0.00026J**	mg/L	0.0010	0.000024	1	10/03/23 17:27	10/06/23 06:08	7440-48-4	
Lead	**0.000026J**	mg/L	0.0010	0.000019	1	10/03/23 17:27	10/06/23 06:08	7439-92-1	
Molybdenum	**0.016**	mg/L	0.0010	0.000031	1	10/03/23 17:27	10/06/23 06:08	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/03/23 17:27	10/06/23 06:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/03/23 17:27	10/06/23 06:08	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/04/23 19:05	10/05/23 17:21	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 50 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**1480**	mg/L	20.0	20.0	1		10/05/23 15:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		10/16/23 14:17		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-68-100223 **Lab ID: 50355221002** Collected: 10/02/23 13:05 Received: 10/03/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**18.7**	mg/L	0.25	0.067	1		10/14/23 00:53	16887-00-6	
Fluoride	**0.18**	mg/L	0.050	0.017	1		10/14/23 00:53	16984-48-8	
Sulfate	**63.6**	mg/L	2.5	1.9	10		10/14/23 01:10	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.060J**	mg/L	0.10	0.012	1	10/04/23 07:57	10/14/23 16:16	7440-42-8	
Calcium	**63.9**	mg/L	1.0	0.14	1	10/04/23 07:57	10/14/23 16:16	7440-70-2	
Lithium	**0.0069J**	mg/L	0.020	0.0062	1	10/04/23 07:57	10/14/23 16:16	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00019J**	mg/L	0.0010	0.000044	1	10/03/23 17:27	10/06/23 06:18	7440-36-0	
Arsenic	**0.00097J**	mg/L	0.0010	0.000064	1	10/03/23 17:27	10/06/23 06:18	7440-38-2	
Barium	**0.10**	mg/L	0.0010	0.000067	1	10/03/23 17:27	10/06/23 06:18	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 17:27	10/06/23 06:18	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/03/23 17:27	10/06/23 06:18	7440-43-9	
Chromium	**0.00021J**	mg/L	0.0020	0.00015	1	10/03/23 17:27	10/06/23 06:18	7440-47-3	
Cobalt	**0.00053J**	mg/L	0.0010	0.000024	1	10/03/23 17:27	10/06/23 06:18	7440-48-4	
Lead	**0.000086J**	mg/L	0.0010	0.000019	1	10/03/23 17:27	10/06/23 06:18	7439-92-1	
Molybdenum	**0.0040**	mg/L	0.0010	0.000031	1	10/03/23 17:27	10/06/23 06:18	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/03/23 17:27	10/06/23 06:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/03/23 17:27	10/06/23 06:18	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/04/23 19:05	10/05/23 17:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**282**	mg/L	10.0	10.0	1		10/05/23 15:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		10/16/23 14:19		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: GAMW-68B-100223 **Lab ID: 50355221003** Collected: 10/02/23 14:35 Received: 10/03/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**13.0**	mg/L	0.25	0.067	1		10/14/23 01:45	16887-00-6	
Fluoride	**0.17**	mg/L	0.050	0.017	1		10/14/23 01:45	16984-48-8	
Sulfate	**46.7**	mg/L	2.5	1.9	10		10/14/23 02:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.041J**	mg/L	0.10	0.012	1	10/04/23 07:57	10/14/23 16:19	7440-42-8	
Calcium	**41.4**	mg/L	1.0	0.14	1	10/04/23 07:57	10/14/23 16:19	7440-70-2	
Lithium	**0.0067J**	mg/L	0.020	0.0062	1	10/04/23 07:57	10/14/23 16:19	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000044	1	10/03/23 17:27	10/06/23 06:21	7440-36-0	
Arsenic	**0.00031J**	mg/L	0.0010	0.000064	1	10/03/23 17:27	10/06/23 06:21	7440-38-2	
Barium	**0.082**	mg/L	0.0010	0.000067	1	10/03/23 17:27	10/06/23 06:21	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 17:27	10/06/23 06:21	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/03/23 17:27	10/06/23 06:21	7440-43-9	
Chromium	**0.00024J**	mg/L	0.0020	0.00015	1	10/03/23 17:27	10/06/23 06:21	7440-47-3	
Cobalt	**0.000046J**	mg/L	0.0010	0.000024	1	10/03/23 17:27	10/06/23 06:21	7440-48-4	
Lead	**0.000061J**	mg/L	0.0010	0.000019	1	10/03/23 17:27	10/06/23 06:21	7439-92-1	
Molybdenum	**0.0023**	mg/L	0.0010	0.000031	1	10/03/23 17:27	10/06/23 06:21	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/03/23 17:27	10/06/23 06:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/03/23 17:27	10/06/23 06:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/04/23 19:05	10/05/23 17:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**203**	mg/L	10.0	10.0	1		10/05/23 15:37		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		10/17/23 13:37		H3

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
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(317)228-3100

ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: FD-06-100223 **Lab ID: 50355221004** Collected: 10/02/23 12:00 Received: 10/03/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**12.9**	mg/L	0.25	0.067	1		10/14/23 04:55	16887-00-6	
Fluoride	**0.17**	mg/L	0.050	0.017	1		10/14/23 04:55	16984-48-8	
Sulfate	**46.7**	mg/L	2.5	1.9	10		10/14/23 05:10	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.034J**	mg/L	0.10	0.012	1	10/04/23 07:57	10/14/23 16:22	7440-42-8	
Calcium	**41.4**	mg/L	1.0	0.14	1	10/04/23 07:57	10/14/23 16:22	7440-70-2	
Lithium	**0.0067J**	mg/L	0.020	0.0062	1	10/04/23 07:57	10/14/23 16:22	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000044	1	10/03/23 17:27	10/06/23 06:25	7440-36-0	
Arsenic	**0.00029J**	mg/L	0.0010	0.000064	1	10/03/23 17:27	10/06/23 06:25	7440-38-2	
Barium	**0.084**	mg/L	0.0010	0.000067	1	10/03/23 17:27	10/06/23 06:25	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 17:27	10/06/23 06:25	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/03/23 17:27	10/06/23 06:25	7440-43-9	
Chromium	**0.00025J**	mg/L	0.0020	0.00015	1	10/03/23 17:27	10/06/23 06:25	7440-47-3	
Cobalt	**0.000047J**	mg/L	0.0010	0.000024	1	10/03/23 17:27	10/06/23 06:25	7440-48-4	
Lead	**0.000060J**	mg/L	0.0010	0.000019	1	10/03/23 17:27	10/06/23 06:25	7439-92-1	
Molybdenum	**0.0024**	mg/L	0.0010	0.000031	1	10/03/23 17:27	10/06/23 06:25	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/03/23 17:27	10/06/23 06:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/03/23 17:27	10/06/23 06:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/04/23 19:05	10/05/23 17:29	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**205**	mg/L	10.0	10.0	1		10/05/23 15:38		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		10/17/23 13:38		H3

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ANALYTICAL RESULTS

Project: RMSGS Assessment
Pace Project No.: 50353874

Sample: FB-06-100224 **Lab ID: 50355221005** Collected: 10/02/23 14:40 Received: 10/03/23 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		10/14/23 02:33	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		10/14/23 02:33	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		10/14/23 02:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.012	1	10/04/23 07:57	10/14/23 16:30	7440-42-8	
Calcium	ND	mg/L	1.0	0.14	1	10/04/23 07:57	10/14/23 16:30	7440-70-2	
Lithium	ND	mg/L	0.020	0.0062	1	10/04/23 07:57	10/14/23 16:30	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000044	1	10/03/23 17:27	10/06/23 06:28	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.000064	1	10/03/23 17:27	10/06/23 06:28	7440-38-2	
Barium	**0.0015**	mg/L	0.0010	0.000067	1	10/03/23 17:27	10/06/23 06:28	7440-39-3	C0
Beryllium	ND	mg/L	0.00020	0.000026	1	10/03/23 17:27	10/06/23 06:28	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/03/23 17:27	10/06/23 06:28	7440-43-9	
Chromium	**0.00026J**	mg/L	0.0020	0.00015	1	10/03/23 17:27	10/06/23 06:28	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000024	1	10/03/23 17:27	10/06/23 06:28	7440-48-4	
Lead	**0.000046J**	mg/L	0.0010	0.000019	1	10/03/23 17:27	10/06/23 06:28	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000031	1	10/03/23 17:27	10/06/23 06:28	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/03/23 17:27	10/06/23 06:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/03/23 17:27	10/06/23 06:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/04/23 19:05	10/05/23 17:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/05/23 15:38		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.3**	Std. Units	0.10	0.10	1		10/17/23 13:38		H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753028
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004

METHOD BLANK: 3451383 Matrix: Water
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	09/16/23 19:40	
Fluoride	mg/L	ND	0.050	0.017	09/16/23 19:40	
Sulfate	mg/L	ND	0.25	0.19	09/16/23 19:40	

LABORATORY CONTROL SAMPLE: 3451384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	92	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3451385 3451386

Parameter	Units	50353997003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.2	2.5	2.5	14.5	14.5	91	91	80-120	0	15	
Fluoride	mg/L	0.26	1	1	1.3	1.3	102	102	80-120	0	15	
Sulfate	mg/L	41.1	5	5	45.8	45.8	94	94	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753029
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353874001, 50353874002

METHOD BLANK: 3451387 Matrix: Water
Associated Lab Samples: 50353874001, 50353874002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	09/16/23 19:44	
Fluoride	mg/L	ND	0.050	0.017	09/16/23 19:44	
Sulfate	mg/L	ND	0.25	0.19	09/16/23 19:44	

LABORATORY CONTROL SAMPLE: 3451388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.99	99	80-120	
Sulfate	mg/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3451389 3451390

Parameter	Units	50353914004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	21.7	25	25	44.6	44.6	92	92	80-120	0	15	
Fluoride	mg/L	0.15	1	1	1.1	1.1	94	95	80-120	1	15	
Sulfate	mg/L	11.3	5	5	16.0	16.0	93	93	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753497
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354089001, 50354089002, 50354089003, 50354089004

METHOD BLANK: 3453051 Matrix: Water
Associated Lab Samples: 50354089001, 50354089002, 50354089003, 50354089004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	09/22/23 08:20	
Fluoride	mg/L	ND	0.050	0.017	09/22/23 08:20	
Sulfate	mg/L	ND	0.25	0.19	09/22/23 08:20	

LABORATORY CONTROL SAMPLE: 3453052

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.98	98	80-120	
Sulfate	mg/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3453053 3453054

Parameter	Units	50354089001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.5	2.5	2.5	6.8	6.8	94	93	80-120	0	15	
Fluoride	mg/L	0.20	1	1	1.2	1.2	99	99	80-120	0	15	
Sulfate	mg/L	15.0	5	5	19.9	19.9	98	98	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753498
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50354175001

METHOD BLANK: 3453056 Matrix: Water
Associated Lab Samples: 50354175001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	09/24/23 04:30	
Fluoride	mg/L	ND	0.050	0.017	09/24/23 04:30	
Sulfate	mg/L	ND	0.25	0.19	09/24/23 04:30	

LABORATORY CONTROL SAMPLE: 3453057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	1.0	102	80-120	
Sulfate	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3453058 3453059

Parameter	Units	50354221002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	185	25	25	204	204	77	76	80-120	0	15	M0
Fluoride	mg/L	0.36	1	1	1.4	1.4	100	101	80-120	1	15	
Sulfate	mg/L	65.2	50	50	112	112	94	93	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3453060 3453061

Parameter	Units	50354237004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.2	2.5	2.5	6.4	6.4	91	91	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.0	102	102	80-120	0	15	
Sulfate	mg/L	44.4	5	5	49.4	49.3	100	99	80-120	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3453062 3453063

Parameter	Units	50354238003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.3	2.5	2.5	8.7	8.7	97	96	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.1	1.1	101	101	80-120	0	15	
Sulfate	mg/L	98.8	50	50	145	145	92	92	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754174
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008

METHOD BLANK: 3456523 Matrix: Water
Associated Lab Samples: 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	09/27/23 09:17	
Fluoride	mg/L	ND	0.050	0.017	09/27/23 09:17	
Sulfate	mg/L	ND	0.25	0.19	09/27/23 09:17	

LABORATORY CONTROL SAMPLE: 3456524

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	99	80-120	
Fluoride	mg/L	1	1.0	103	80-120	
Sulfate	mg/L	5	5.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456525 3456526

Parameter	Units	50354341004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.6	2.5	2.5	9.9	9.9	94	94	80-120	0	15	
Fluoride	mg/L	0.13	1	1	1.1	1.1	92	92	80-120	0	15	
Sulfate	mg/L	157	50	50	193	193	73	73	80-120	0	15	M0

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754175
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354383001, 50354383002, 50354383003, 50354383004, 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

METHOD BLANK: 3456527 Matrix: Water
Associated Lab Samples: 50354383001, 50354383002, 50354383003, 50354383004, 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	09/27/23 11:12	
Fluoride	mg/L	ND	0.050	0.017	09/27/23 11:12	
Sulfate	mg/L	ND	0.25	0.19	09/27/23 11:12	

LABORATORY CONTROL SAMPLE: 3456528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	100	80-120	
Fluoride	mg/L	1	1.0	103	80-120	
Sulfate	mg/L	5	5.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456529 3456530

Parameter	Units	50354383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	44.3	25	25	68.1	67.9	95	94	80-120	0	15	
Fluoride	mg/L	0.65	1	1	1.6	1.6	96	96	80-120	0	15	
Sulfate	mg/L	181	50	50	227	227	93	92	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754343
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354592001, 50354592002, 50354592003

METHOD BLANK: 3457043 Matrix: Water
Associated Lab Samples: 50354592001, 50354592002, 50354592003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	09/27/23 11:22	
Fluoride	mg/L	ND	0.050	0.017	09/27/23 11:22	
Sulfate	mg/L	ND	0.25	0.19	09/27/23 11:22	

LABORATORY CONTROL SAMPLE: 3457044

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	98	80-120	
Fluoride	mg/L	1	1.0	104	80-120	
Sulfate	mg/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3457045 3457046

Parameter	Units	50354499010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	9140 ug/L	2.5	2.5	11.3	11.3	86	88	80-120	0	15	
Fluoride	mg/L	<100 ug/L	1	1	1.0	1.0	92	92	80-120	0	15	
Sulfate	mg/L	49700 ug/L	50	50	86.3	85.8	73	72	80-120	1	15	M0

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754803 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

METHOD BLANK: 3459151 Matrix: Water
Associated Lab Samples: 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	10/03/23 07:35	
Fluoride	mg/L	ND	0.050	0.017	10/03/23 07:35	
Sulfate	mg/L	ND	0.25	0.19	10/03/23 07:35	

LABORATORY CONTROL SAMPLE: 3459152

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	91	80-120	
Fluoride	mg/L	1	0.97	97	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3459498 3459499

Parameter	Units	50354687001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	43.8	25	25	65.3	65.1	86	85	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.98	0.98	92	93	80-120	0	15	
Sulfate	mg/L	76.4	50	50	118	116	83	80	80-120	1	15	

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7726 Moller Road
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(317)228-3100

QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 756729
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355025001, 50355025002, 50355129001, 50355129002

METHOD BLANK: 3467918 Matrix: Water
Associated Lab Samples: 50355025001, 50355025002, 50355129001, 50355129002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	10/11/23 12:27	
Fluoride	mg/L	ND	0.050	0.017	10/11/23 12:27	
Sulfate	mg/L	ND	0.25	0.19	10/11/23 12:27	

LABORATORY CONTROL SAMPLE: 3467919

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.5	98	80-120	
Fluoride	mg/L	1	1.0	104	80-120	
Sulfate	mg/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3467920 3467921

Parameter	Units	50355025001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.7	2.5	2.5	5.2	5.1	101	100	80-120	0	15	
Fluoride	mg/L	0.053J	1	1	1.0	1.0	99	98	80-120	1	15	
Sulfate	mg/L	44.3	50	50	89.6	89.2	90	90	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 757025
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

METHOD BLANK: 3469446 Matrix: Water
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	10/14/23 07:01	
Fluoride	mg/L	ND	0.050	0.017	10/14/23 07:01	
Sulfate	mg/L	ND	0.25	0.19	10/14/23 07:01	

LABORATORY CONTROL SAMPLE: 3469447

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.2	89	80-120	
Fluoride	mg/L	1	0.95	95	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3469448 3469449

Parameter	Units	50355295001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	47.0	25	25	69.2	69.3	89	89	80-120	0	15	
Fluoride	mg/L	ND	1	1	1.0	1.0	97	97	80-120	0	15	
Sulfate	mg/L	246	50	50	286	287	80	81	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753339
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353874001, 50353874002

METHOD BLANK: 3452390 Matrix: Water
Associated Lab Samples: 50353874001, 50353874002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	09/21/23 17:12	

LABORATORY CONTROL SAMPLE: 3452391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3452392 3452393

Parameter	Units	50353951019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.091	5	5	4.4	4.2	88	85	75-125	4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3452394 3452395

Parameter	Units	50353962006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.0	5.0	100	101	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753735
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004, 50354089001, 50354089002, 50354089003, 50354089004, 50354175001

METHOD BLANK: 3454076 Matrix: Water
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004, 50354089001, 50354089002, 50354089003, 50354089004, 50354175001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	09/22/23 10:38	

LABORATORY CONTROL SAMPLE: 3454077

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3454078 3454079

Parameter	Units	50353997003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.8	95	96	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3454080 3454081

Parameter	Units	50354238003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.9	95	98	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753840 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008

METHOD BLANK: 3454901 Matrix: Water
Associated Lab Samples: 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	09/24/23 19:17	

LABORATORY CONTROL SAMPLE: 3454902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3454903 3454904

Parameter	Units	50354237004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.6	93	92	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754096
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354383001, 50354383002, 50354383003, 50354383004

METHOD BLANK: 3456294 Matrix: Water
Associated Lab Samples: 50354383001, 50354383002, 50354383003, 50354383004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	09/26/23 09:20	

LABORATORY CONTROL SAMPLE: 3456295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456296 3456297

Parameter	Units	50354383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.6	92	92	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456298 3456299

Parameter	Units	50354509001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.8	4.8	95	96	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754285
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

METHOD BLANK: 3456881 Matrix: Water
Associated Lab Samples: 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	09/26/23 18:28	

LABORATORY CONTROL SAMPLE: 3456882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456883 3456884

Parameter	Units	50354616003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.8	4.8	96	97	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754832
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354592001, 50354592002, 50354592003, 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

METHOD BLANK: 3459280 Matrix: Water
Associated Lab Samples: 50354592001, 50354592002, 50354592003, 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	10/01/23 21:21	

LABORATORY CONTROL SAMPLE: 3459281

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3459282 3459283

Parameter	Units	50354592002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.5	94	90	75-125	4	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755670
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

METHOD BLANK: 3463154 Matrix: Water
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	10/05/23 16:47	

LABORATORY CONTROL SAMPLE: 3463155

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3463156 3463157

Parameter	Units	50355093002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.1	4.9	101	99	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 756283
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355129001, 50355129002

METHOD BLANK: 3466279 Matrix: Water
Associated Lab Samples: 50355129001, 50355129002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	10/11/23 07:38	

LABORATORY CONTROL SAMPLE: 3466280

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466281 3466282

Parameter	Units	50355101005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.7	4.8	95	95	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 756358
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355025001, 50355025002

METHOD BLANK: 3466519 Matrix: Water
Associated Lab Samples: 50355025001, 50355025002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	10/11/23 08:42	

LABORATORY CONTROL SAMPLE: 3466520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466521 3466522

Parameter	Units	50355308002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.8	93	96	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753049
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353874001, 50353874002

METHOD BLANK: 3451443 Matrix: Water
Associated Lab Samples: 50353874001, 50353874002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.011	09/23/23 10:43	
Calcium	mg/L	ND	1.0	0.057	09/23/23 10:43	
Lithium	mg/L	ND	0.020	0.0051	09/23/23 10:43	

LABORATORY CONTROL SAMPLE: 3451444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.99	99	80-120	
Calcium	mg/L	10	10.1	101	80-120	
Lithium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3451445 3451446

Parameter	Units	50353962006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	108 ug/L	1	1	1.1	1.1	96	97	75-125	0	20	
Calcium	mg/L	101000 ug/L	10	10	107	103	52	16	75-125	3	20	P6
Lithium	mg/L	ND	1	1	0.93	0.94	92	93	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753052
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004, 50354089001, 50354089002, 50354089003, 50354089004

METHOD BLANK: 3451463 Matrix: Water
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004, 50354089001, 50354089002, 50354089003, 50354089004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.012	09/23/23 00:53	
Calcium	mg/L	ND	1.0	0.14	09/23/23 00:53	
Lithium	mg/L	ND	0.020	0.0062	09/23/23 00:53	

LABORATORY CONTROL SAMPLE: 3451464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.96	96	80-120	
Calcium	mg/L	10	9.9	99	80-120	
Lithium	mg/L	1	0.98	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3451465 3451466

Parameter	Units	50353997003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.21	1	1	1.1	1.2	92	99	75-125	6	20	
Calcium	mg/L	67.2	10	10	72.0	77.0	48	98	75-125	7	20	P6
Lithium	mg/L	ND	1	1	0.95	1.0	95	100	75-125	5	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753604
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354175001, 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008

METHOD BLANK: 3453555 Matrix: Water
Associated Lab Samples: 50354175001, 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.011	09/23/23 11:49	
Calcium	mg/L	ND	1.0	0.057	09/23/23 11:49	
Lithium	mg/L	ND	0.020	0.0051	09/23/23 11:49	

LABORATORY CONTROL SAMPLE: 3453556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.91	91	80-120	
Calcium	mg/L	10	9.3	93	80-120	
Lithium	mg/L	1	0.93	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3453557 3453558

Parameter	Units	50354251004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	1.5	1	1	2.5	2.6	104	108	75-125	2	20	
Calcium	mg/L	264	10	10	275	279	108	144	75-125	1	20	E,P6
Lithium	mg/L	0.0080J	1	1	1.0	1.0	99	101	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754101
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354383001, 50354383002, 50354383003, 50354383004, 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

METHOD BLANK: 3456310 Matrix: Water
Associated Lab Samples: 50354383001, 50354383002, 50354383003, 50354383004, 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.011	09/29/23 11:01	
Calcium	mg/L	ND	1.0	0.057	09/29/23 11:01	
Lithium	mg/L	ND	0.020	0.0051	09/29/23 11:01	

LABORATORY CONTROL SAMPLE: 3456311

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.96	96	80-120	
Calcium	mg/L	10	9.9	99	80-120	
Lithium	mg/L	1	1.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456314 3456315

Parameter	Units	50354356004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	8.3	1	1	8.9	9.0	68	76	75-125	1	20	P6
Calcium	mg/L	176	10	10	177	179	12	29	75-125	1	20	P6
Lithium	mg/L	0.0057J	1	1	1.0	1.0	100	101	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456413 3456414

Parameter	Units	50354383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	6.1	1	1	7.1	6.9	103	81	75-125	3	20	
Calcium	mg/L	137	10	10	146	141	97	43	75-125	4	20	P6
Lithium	mg/L	ND	1	1	1.0	0.98	100	98	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754484
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354592001, 50354592002, 50354592003, 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

METHOD BLANK: 3457557 Matrix: Water
Associated Lab Samples: 50354592001, 50354592002, 50354592003, 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.011	10/05/23 16:16	
Calcium	mg/L	ND	1.0	0.057	10/05/23 16:16	
Lithium	mg/L	ND	0.020	0.0051	10/05/23 16:16	

LABORATORY CONTROL SAMPLE: 3457558

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.94	94	80-120	
Calcium	mg/L	10	9.9	99	80-120	
Lithium	mg/L	1	0.99	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3457559 3457560

Parameter	Units	50354666001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.79	1	1	1.8	1.7	100	93	75-125	4	20	
Calcium	mg/L	126	10	10	135	128	92	24	75-125	5	20	P6
Lithium	mg/L	ND	1	1	1.0	0.99	101	99	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755296
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355025001, 50355025002, 50355129001, 50355129002

METHOD BLANK: 3461720 Matrix: Water
Associated Lab Samples: 50355025001, 50355025002, 50355129001, 50355129002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.012	10/12/23 10:20	
Calcium	mg/L	ND	1.0	0.14	10/12/23 10:20	
Lithium	mg/L	ND	0.020	0.0062	10/12/23 10:20	

LABORATORY CONTROL SAMPLE: 3461721

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.94	94	80-120	
Calcium	mg/L	10	9.2	92	80-120	
Lithium	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461722 3461723

Parameter	Units	50354927001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	151 ug/L	1	1	1.2	1.1	101	95	75-125	6	20	
Calcium	mg/L	136000 ug/L	10	10	144	138	78	23	75-125	4	20	P6
Lithium	mg/L	ND	1	1	1.1	1.0	105	99	75-125	6	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755562
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

METHOD BLANK: 3462651 Matrix: Water
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.012	10/14/23 15:15	
Calcium	mg/L	ND	1.0	0.14	10/14/23 15:15	
Lithium	mg/L	ND	0.020	0.0062	10/14/23 15:15	

LABORATORY CONTROL SAMPLE: 3462652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	100	80-120	
Calcium	mg/L	10	10.3	103	80-120	
Lithium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3462653 3462654

Parameter	Units	50355101002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	169 ug/L	1	1	1.2	1.2	101	102	75-125	1	20	
Calcium	mg/L	122000 ug/L	10	10	128	130	50	76	75-125	2	20	P6
Lithium	mg/L	ND	1	1	1.1	1.1	106	108	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753448
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353874001, 50353874002, 50353997001, 50353997002, 50353997003, 50353997004, 50354089001, 50354089002, 50354089003, 50354089004, 50354175001

METHOD BLANK: 3452926 Matrix: Water
Associated Lab Samples: 50353874001, 50353874002, 50353997001, 50353997002, 50353997003, 50353997004, 50354089001, 50354089002, 50354089003, 50354089004, 50354175001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.00049	09/25/23 11:50	
Arsenic	mg/L	ND	0.0010	0.000075	09/25/23 11:50	
Barium	mg/L	ND	0.0010	0.000077	09/25/23 11:50	
Beryllium	mg/L	ND	0.00020	0.000035	09/25/23 11:50	
Cadmium	mg/L	ND	0.00020	0.000011	09/25/23 11:50	
Chromium	mg/L	ND	0.0020	0.00014	09/25/23 11:50	
Cobalt	mg/L	ND	0.0010	0.000046	09/25/23 11:50	
Lead	mg/L	ND	0.0010	0.000029	09/25/23 11:50	
Molybdenum	mg/L	ND	0.0010	0.000046	09/25/23 11:50	
Selenium	mg/L	ND	0.0010	0.00020	09/25/23 11:50	
Thallium	mg/L	ND	0.0010	0.000040	09/25/23 11:50	

LABORATORY CONTROL SAMPLE: 3452927

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	103	80-120	
Arsenic	mg/L	0.04	0.040	99	80-120	
Barium	mg/L	0.04	0.039	98	80-120	
Beryllium	mg/L	0.04	0.040	101	80-120	
Cadmium	mg/L	0.04	0.039	98	80-120	
Chromium	mg/L	0.04	0.041	102	80-120	
Cobalt	mg/L	0.04	0.042	104	80-120	
Lead	mg/L	0.04	0.040	101	80-120	
Molybdenum	mg/L	0.04	0.039	99	80-120	
Selenium	mg/L	0.04	0.040	101	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3452928 3452929

Parameter	Units	50353962006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.042	0.042	106	104	75-125	1	20	
Arsenic	mg/L	ND	0.04	0.04	0.039	0.039	96	97	75-125	1	20	
Barium	mg/L	66.7 ug/L	0.04	0.04	0.11	0.11	100	102	75-125	0	20	
Beryllium	mg/L	ND	0.04	0.04	0.040	0.040	100	100	75-125	0	20	
Cadmium	mg/L	ND	0.04	0.04	0.038	0.038	95	95	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3452928 3452929

Parameter	Units	50353962006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.04	0.04	0.039	0.040	96	98	75-125	1	20	
Cobalt	mg/L	ND	0.04	0.04	0.039	0.039	97	97	75-125	0	20	
Lead	mg/L	ND	0.04	0.04	0.040	0.040	100	100	75-125	1	20	
Molybdenum	mg/L	ND	0.04	0.04	0.041	0.041	100	101	75-125	1	20	
Selenium	mg/L	1.2 ug/L	0.04	0.04	0.041	0.041	100	100	75-125	0	20	
Thallium	mg/L	ND	0.04	0.04	0.041	0.041	103	103	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3452930 3452931

Parameter	Units	50353997003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.043	0.042	106	105	75-125	1	20	
Arsenic	mg/L	0.0057	0.04	0.04	0.045	0.045	99	98	75-125	1	20	
Barium	mg/L	0.11	0.04	0.04	0.15	0.15	96	95	75-125	0	20	
Beryllium	mg/L	ND	0.04	0.04	0.041	0.041	103	103	75-125	1	20	
Cadmium	mg/L	0.000069J	0.04	0.04	0.039	0.039	97	98	75-125	0	20	
Chromium	mg/L	0.00096J	0.04	0.04	0.041	0.041	101	99	75-125	1	20	
Cobalt	mg/L	0.00067J	0.04	0.04	0.040	0.040	99	99	75-125	1	20	
Lead	mg/L	ND	0.04	0.04	0.040	0.040	101	100	75-125	1	20	
Molybdenum	mg/L	0.0033	0.04	0.04	0.043	0.043	100	100	75-125	0	20	
Selenium	mg/L	0.00041J	0.04	0.04	0.041	0.040	101	100	75-125	1	20	
Thallium	mg/L	ND	0.04	0.04	0.042	0.042	104	104	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754116
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008, 50354383001, 50354383002, 50354383003, 50354383004, 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

METHOD BLANK: 3456374 Matrix: Water
Associated Lab Samples: 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008, 50354383001, 50354383002, 50354383003, 50354383004, 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000080	09/27/23 15:30	
Arsenic	mg/L	ND	0.0010	0.00012	09/27/23 15:30	
Barium	mg/L	ND	0.0010	0.000065	09/27/23 15:30	
Beryllium	mg/L	ND	0.00020	0.000026	09/27/23 15:30	
Cadmium	mg/L	ND	0.00020	0.000016	09/27/23 15:30	
Chromium	mg/L	ND	0.0020	0.00018	09/27/23 15:30	
Cobalt	mg/L	ND	0.0010	0.000071	09/27/23 15:30	
Lead	mg/L	ND	0.0010	0.000068	09/27/23 15:30	
Molybdenum	mg/L	ND	0.0010	0.000074	09/27/23 15:30	
Selenium	mg/L	ND	0.0010	0.00019	09/27/23 15:30	
Thallium	mg/L	ND	0.0010	0.000060	09/27/23 15:30	

LABORATORY CONTROL SAMPLE: 3456375

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	104	80-120	
Arsenic	mg/L	0.04	0.039	98	80-120	
Barium	mg/L	0.04	0.040	100	80-120	
Beryllium	mg/L	0.04	0.040	100	80-120	
Cadmium	mg/L	0.04	0.040	100	80-120	
Chromium	mg/L	0.04	0.041	104	80-120	
Cobalt	mg/L	0.04	0.039	98	80-120	
Lead	mg/L	0.04	0.041	102	80-120	
Molybdenum	mg/L	0.04	0.041	102	80-120	
Selenium	mg/L	0.04	0.040	99	80-120	
Thallium	mg/L	0.04	0.041	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456376 3456377

Parameter	Units	50354383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.042	0.042	105	106	75-125	1	20	
Arsenic	mg/L	0.0068	0.04	0.04	0.044	0.044	92	93	75-125	1	20	
Barium	mg/L	0.038	0.04	0.04	0.080	0.080	104	104	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3456376 3456377

Parameter	Units	50354383001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.04	0.04	0.037	0.037	92	93	75-125	1	20	
Cadmium	mg/L	ND	0.04	0.04	0.040	0.040	100	100	75-125	0	20	
Chromium	mg/L	0.00031J	0.04	0.04	0.042	0.041	103	103	75-125	1	20	
Cobalt	mg/L	0.0012	0.04	0.04	0.039	0.039	94	94	75-125	0	20	
Lead	mg/L	ND	0.04	0.04	0.041	0.042	103	105	75-125	2	20	
Molybdenum	mg/L	0.042	0.04	0.04	0.082	0.082	102	101	75-125	0	20	
Selenium	mg/L	ND	0.04	0.04	0.037	0.037	93	92	75-125	0	20	
Thallium	mg/L	0.000066J	0.04	0.04	0.042	0.042	104	106	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754328
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354592001, 50354592002, 50354592003

METHOD BLANK: 3457007 Matrix: Water
Associated Lab Samples: 50354592001, 50354592002, 50354592003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000080	10/02/23 20:25	
Arsenic	mg/L	ND	0.0010	0.00012	10/02/23 20:25	
Barium	mg/L	ND	0.0010	0.000065	10/02/23 20:25	
Beryllium	mg/L	ND	0.00020	0.000026	10/02/23 20:25	
Cadmium	mg/L	ND	0.00020	0.000016	10/02/23 20:25	
Chromium	mg/L	ND	0.0020	0.00018	10/02/23 20:25	
Cobalt	mg/L	ND	0.0010	0.000071	10/02/23 20:25	
Lead	mg/L	ND	0.0010	0.000068	10/02/23 20:25	
Molybdenum	mg/L	ND	0.0010	0.000074	10/02/23 20:25	
Selenium	mg/L	ND	0.0010	0.00019	10/02/23 20:25	
Thallium	mg/L	ND	0.0010	0.000060	10/02/23 20:25	

LABORATORY CONTROL SAMPLE: 3457008

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.042	105	80-120	
Arsenic	mg/L	0.04	0.039	97	80-120	
Barium	mg/L	0.04	0.040	99	80-120	
Beryllium	mg/L	0.04	0.040	101	80-120	
Cadmium	mg/L	0.04	0.041	102	80-120	
Chromium	mg/L	0.04	0.042	105	80-120	
Cobalt	mg/L	0.04	0.041	102	80-120	
Lead	mg/L	0.04	0.041	102	80-120	
Molybdenum	mg/L	0.04	0.041	102	80-120	
Selenium	mg/L	0.04	0.040	100	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3457009 3457010

Parameter	Units	50354489001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.0022	0.04	0.04	0.045	0.044	106	105	75-125	1	20	
Arsenic	mg/L	0.0027	0.04	0.04	0.042	0.043	98	100	75-125	2	20	
Barium	mg/L	0.56	0.04	0.04	0.60	0.61	104	124	75-125	1	20	
Beryllium	mg/L	ND	0.04	0.04	0.039	0.040	97	99	75-125	2	20	
Cadmium	mg/L	0.000029J	0.04	0.04	0.035	0.036	88	89	75-125	2	20	
Chromium	mg/L	0.00035J	0.04	0.04	0.036	0.036	88	89	75-125	0	20	

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(317)228-3100

QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3457009 3457010

Parameter	Units	50354489001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.0021	0.04	0.04	0.037	0.037	87	88	75-125	2	20	
Lead	mg/L	ND	0.04	0.04	0.040	0.041	101	102	75-125	1	20	
Molybdenum	mg/L	0.27	0.04	0.04	0.31	0.31	105	106	75-125	0	20	
Selenium	mg/L	0.0035	0.04	0.04	0.045	0.046	104	106	75-125	2	20	
Thallium	mg/L	ND	0.04	0.04	0.040	0.040	100	101	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754691
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

METHOD BLANK: 3458557 Matrix: Water
Associated Lab Samples: 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.00049	09/29/23 21:48	
Arsenic	mg/L	ND	0.0010	0.000075	09/29/23 21:48	
Barium	mg/L	ND	0.0010	0.000077	09/29/23 21:48	
Beryllium	mg/L	ND	0.00020	0.000035	09/29/23 21:48	
Cadmium	mg/L	ND	0.00020	0.000011	09/29/23 21:48	
Chromium	mg/L	ND	0.0020	0.00014	09/29/23 21:48	
Cobalt	mg/L	ND	0.0010	0.000046	09/29/23 21:48	
Lead	mg/L	ND	0.0010	0.000029	09/29/23 21:48	
Molybdenum	mg/L	ND	0.0010	0.000046	09/29/23 21:48	
Selenium	mg/L	ND	0.0010	0.00020	09/29/23 21:48	
Thallium	mg/L	ND	0.0010	0.000040	09/29/23 21:48	

LABORATORY CONTROL SAMPLE: 3458558

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	103	80-120	
Arsenic	mg/L	0.04	0.039	98	80-120	
Barium	mg/L	0.04	0.039	97	80-120	
Beryllium	mg/L	0.04	0.039	98	80-120	
Cadmium	mg/L	0.04	0.038	96	80-120	
Chromium	mg/L	0.04	0.041	102	80-120	
Cobalt	mg/L	0.04	0.041	103	80-120	
Lead	mg/L	0.04	0.040	101	80-120	
Molybdenum	mg/L	0.04	0.040	100	80-120	
Selenium	mg/L	0.04	0.039	98	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3458559 3458560

Parameter	Units	50354669001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.044	0.043	108	106	75-125	2	20	
Arsenic	mg/L	0.015	0.04	0.04	0.055	0.055	99	99	75-125	0	20	
Barium	mg/L	0.053	0.04	0.04	0.094	0.093	103	99	75-125	2	20	
Beryllium	mg/L	ND	0.04	0.04	0.041	0.040	102	101	75-125	1	20	
Cadmium	mg/L	0.000026J	0.04	0.04	0.039	0.039	98	97	75-125	1	20	
Chromium	mg/L	0.00070J	0.04	0.04	0.042	0.042	104	102	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3458559 3458560

Parameter	Units	50354669001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.00068J	0.04	0.04	0.041	0.041	101	102	75-125	0	20	
Lead	mg/L	0.000063J	0.04	0.04	0.042	0.041	104	103	75-125	1	20	
Molybdenum	mg/L	0.040	0.04	0.04	0.085	0.084	112	109	75-125	2	20	
Selenium	mg/L	0.00055J	0.04	0.04	0.040	0.040	100	100	75-125	0	20	
Thallium	mg/L	0.00012J	0.04	0.04	0.043	0.043	108	106	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755244
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355025001, 50355025002, 50355129001, 50355129002

METHOD BLANK: 3461526 Matrix: Water
Associated Lab Samples: 50355025001, 50355025002, 50355129001, 50355129002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000044	10/04/23 04:49	
Arsenic	mg/L	ND	0.0010	0.000064	10/04/23 04:49	
Barium	mg/L	ND	0.0010	0.000067	10/04/23 04:49	
Beryllium	mg/L	ND	0.00020	0.000026	10/04/23 04:49	
Cadmium	mg/L	ND	0.00020	0.000016	10/04/23 04:49	
Chromium	mg/L	ND	0.0020	0.00015	10/04/23 04:49	
Cobalt	mg/L	ND	0.0010	0.000024	10/04/23 04:49	
Lead	mg/L	ND	0.0010	0.000019	10/04/23 04:49	
Molybdenum	mg/L	ND	0.0010	0.000031	10/04/23 04:49	
Selenium	mg/L	ND	0.0010	0.00023	10/04/23 04:49	
Thallium	mg/L	ND	0.0010	0.000042	10/04/23 04:49	

LABORATORY CONTROL SAMPLE: 3461527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.042	104	80-120	
Arsenic	mg/L	0.04	0.038	95	80-120	
Barium	mg/L	0.04	0.039	97	80-120	
Beryllium	mg/L	0.04	0.039	98	80-120	
Cadmium	mg/L	0.04	0.040	99	80-120	
Chromium	mg/L	0.04	0.040	100	80-120	
Cobalt	mg/L	0.04	0.040	99	80-120	
Lead	mg/L	0.04	0.040	100	80-120	
Molybdenum	mg/L	0.04	0.042	104	80-120	
Selenium	mg/L	0.04	0.039	98	80-120	
Thallium	mg/L	0.04	0.040	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461528 3461529

Parameter	Units	50354927001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.042	0.042	104	106	75-125	2	20	
Arsenic	mg/L	111 ug/L	0.04	0.04	0.15	0.15	97	94	75-125	1	20	
Barium	mg/L	171 ug/L	0.04	0.04	0.21	0.21	99	100	75-125	0	20	E
Beryllium	mg/L	ND	0.04	0.04	0.041	0.041	102	103	75-125	0	20	
Cadmium	mg/L	ND	0.04	0.04	0.039	0.040	97	99	75-125	2	20	
Chromium	mg/L	ND	0.04	0.04	0.040	0.040	98	98	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3461528 3461529

Parameter	Units	50354927001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	ND	0.04	0.04	0.038	0.039	95	96	75-125	1	20	
Lead	mg/L	ND	0.04	0.04	0.041	0.041	102	102	75-125	0	20	
Molybdenum	mg/L	9.2 ug/L	0.04	0.04	0.052	0.051	106	106	75-125	0	20	
Selenium	mg/L	ND	0.04	0.04	0.041	0.040	102	100	75-125	2	20	
Thallium	mg/L	ND	0.04	0.04	0.041	0.041	103	103	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755546
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

METHOD BLANK: 3462584 Matrix: Water
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000044	10/06/23 05:05	
Arsenic	mg/L	ND	0.0010	0.000064	10/06/23 05:05	
Barium	mg/L	ND	0.0010	0.000067	10/06/23 05:05	
Beryllium	mg/L	ND	0.00020	0.000026	10/06/23 05:05	
Cadmium	mg/L	ND	0.00020	0.000016	10/06/23 05:05	
Chromium	mg/L	ND	0.0020	0.00015	10/06/23 05:05	
Cobalt	mg/L	ND	0.0010	0.000024	10/06/23 05:05	
Lead	mg/L	ND	0.0010	0.000019	10/06/23 05:05	
Molybdenum	mg/L	ND	0.0010	0.000031	10/06/23 05:05	
Selenium	mg/L	ND	0.0010	0.00023	10/06/23 05:05	
Thallium	mg/L	ND	0.0010	0.000042	10/06/23 05:05	

LABORATORY CONTROL SAMPLE: 3462585

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.043	107	80-120	
Arsenic	mg/L	0.04	0.040	100	80-120	
Barium	mg/L	0.04	0.039	97	80-120	
Beryllium	mg/L	0.04	0.042	105	80-120	
Cadmium	mg/L	0.04	0.041	103	80-120	
Chromium	mg/L	0.04	0.043	106	80-120	
Cobalt	mg/L	0.04	0.040	100	80-120	
Lead	mg/L	0.04	0.041	104	80-120	
Molybdenum	mg/L	0.04	0.042	105	80-120	
Selenium	mg/L	0.04	0.039	96	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3462586 3462587

Parameter	Units	50355101002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.042	0.043	105	108	75-125	2	20	
Arsenic	mg/L	6.0 ug/L	0.04	0.04	0.045	0.046	97	101	75-125	4	20	
Barium	mg/L	72.2 ug/L	0.04	0.04	0.11	0.11	100	102	75-125	1	20	
Beryllium	mg/L	ND	0.04	0.04	0.042	0.042	105	106	75-125	1	20	
Cadmium	mg/L	ND	0.04	0.04	0.041	0.041	102	102	75-125	0	20	
Chromium	mg/L	2.6 ug/L	0.04	0.04	0.043	0.044	101	104	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3462586 3462587

Parameter	Units	50355101002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	ND	0.04	0.04	0.038	0.039	95	96	75-125	1	20	
Lead	mg/L	2.2 ug/L	0.04	0.04	0.044	0.045	105	108	75-125	2	20	
Molybdenum	mg/L	3.0 ug/L	0.04	0.04	0.044	0.046	103	107	75-125	4	20	
Selenium	mg/L	ND	0.04	0.04	0.019	0.022	48	54	75-125	12	20	M3
Thallium	mg/L	ND	0.04	0.04	0.042	0.043	106	108	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753291
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353874001, 50353874002

METHOD BLANK: 3452169 Matrix: Water
Associated Lab Samples: 50353874001, 50353874002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/19/23 12:35	

LABORATORY CONTROL SAMPLE: 3452170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	278	93	80-120	

SAMPLE DUPLICATE: 3452171

Parameter	Units	50353867004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	814	808	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753524 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004

METHOD BLANK: 3453156 Matrix: Water
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/20/23 14:03	

LABORATORY CONTROL SAMPLE: 3453157

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	270	90	80-120	

SAMPLE DUPLICATE: 3453158

Parameter	Units	50353994001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	300	301	0	10	

SAMPLE DUPLICATE: 3453159

Parameter	Units	50353997003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	299	297	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753743 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354089001, 50354089002, 50354089003, 50354089004

METHOD BLANK: 3454142 Matrix: Water
Associated Lab Samples: 50354089001, 50354089002, 50354089003, 50354089004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/21/23 15:20	

LABORATORY CONTROL SAMPLE: 3454143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	291	97	80-120	

SAMPLE DUPLICATE: 3454144

Parameter	Units	50354078001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	12800	13400	4	10	

SAMPLE DUPLICATE: 3454145

Parameter	Units	50354089002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	475	475	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 753744
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354175001

METHOD BLANK: 3454146 Matrix: Water
Associated Lab Samples: 50354175001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/21/23 14:32	

LABORATORY CONTROL SAMPLE: 3454147

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	285	95	80-120	

SAMPLE DUPLICATE: 3454148

Parameter	Units	50354092015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1110	1110	0	10	

SAMPLE DUPLICATE: 3454149

Parameter	Units	50354220004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	457	463	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754177
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008

METHOD BLANK: 3456533 Matrix: Water
Associated Lab Samples: 50354261001, 50354261002, 50354261003, 50354261004, 50354261005, 50354261006, 50354261007, 50354261008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/25/23 15:48	

LABORATORY CONTROL SAMPLE: 3456534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	276	92	80-120	

SAMPLE DUPLICATE: 3456535

Parameter	Units	50354238003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	467	483	3	10	

SAMPLE DUPLICATE: 3456536

Parameter	Units	50354254001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	PL

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7726 Moller Road
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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754613 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354383001, 50354383002, 50354383003, 50354383004

METHOD BLANK: 3458285 Matrix: Water
Associated Lab Samples: 50354383001, 50354383002, 50354383003, 50354383004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/27/23 12:18	

LABORATORY CONTROL SAMPLE: 3458286

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	270	90	80-120	

SAMPLE DUPLICATE: 3458287

Parameter	Units	50354353004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	332	344	4	10	

SAMPLE DUPLICATE: 3458288

Parameter	Units	50354383001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	656	653	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754860 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

METHOD BLANK: 3459405 Matrix: Water
Associated Lab Samples: 50354467001, 50354467002, 50354467003, 50354467004, 50354467005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/23 15:32	

LABORATORY CONTROL SAMPLE: 3459406

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	288	96	80-120	

SAMPLE DUPLICATE: 3459407

Parameter	Units	50354398001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	724	740	2	10	

SAMPLE DUPLICATE: 3459408

Parameter	Units	50354451002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	564	568	1	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754861
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354592001, 50354592002

METHOD BLANK: 3459409 Matrix: Water
Associated Lab Samples: 50354592001, 50354592002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/23 15:50	

LABORATORY CONTROL SAMPLE: 3459410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	282	94	80-120	

SAMPLE DUPLICATE: 3459411

Parameter	Units	50354524005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3400	3290	3	10	

SAMPLE DUPLICATE: 3459412

Parameter	Units	50354594007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	280	274	2	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754862
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354592003

METHOD BLANK: 3459413 Matrix: Water
Associated Lab Samples: 50354592003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/23 16:05	

LABORATORY CONTROL SAMPLE: 3459414

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	272	91	80-120	

SAMPLE DUPLICATE: 3459415

Parameter	Units	50354649005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	510	528	3	10	

SAMPLE DUPLICATE: 3459416

Parameter	Units	50354740001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	784	810	3	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755182 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

METHOD BLANK: 3461304 Matrix: Water
Associated Lab Samples: 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/23 14:29	

LABORATORY CONTROL SAMPLE: 3461305

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	270	90	80-120	

SAMPLE DUPLICATE: 3461306

Parameter	Units	50354655001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	211	211	0	10	

SAMPLE DUPLICATE: 3461307

Parameter	Units	50354667001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1190	1190	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755910 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355025001, 50355025002, 50355129001, 50355129002

METHOD BLANK: 3464390 Matrix: Water
Associated Lab Samples: 50355025001, 50355025002, 50355129001, 50355129002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/05/23 15:20	

LABORATORY CONTROL SAMPLE: 3464391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	287	96	80-120	

SAMPLE DUPLICATE: 3464392

Parameter	Units	50354906001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2150	2150	0	10	

SAMPLE DUPLICATE: 3464393

Parameter	Units	50355017004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	219	212	3	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755913 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

METHOD BLANK: 3464401 Matrix: Water
Associated Lab Samples: 50355221001, 50355221002, 50355221003, 50355221004, 50355221005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/05/23 15:33	

LABORATORY CONTROL SAMPLE: 3464402

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	288	96	80-120	

SAMPLE DUPLICATE: 3464403

Parameter	Units	50355137002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	29000	31000	7	10	

SAMPLE DUPLICATE: 3464404

Parameter	Units	50355201001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	427	441	3	10	

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754506
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353874001, 50353874002

SAMPLE DUPLICATE: 3457765

Parameter	Units	50353866002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.8	1	2	H3

SAMPLE DUPLICATE: 3457766

Parameter	Units	50353228008 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.4	6.4	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 754715
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50353997001, 50353997002, 50353997003, 50353997004

SAMPLE DUPLICATE: 3458762

Parameter	Units	50353937001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	6.9	1	2	H3

SAMPLE DUPLICATE: 3458763

Parameter	Units	50353997003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.0	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755290
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354089001, 50354089002, 50354089003

SAMPLE DUPLICATE: 3461685

Parameter	Units	50353382012 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.0	6.0	1	2	H3

SAMPLE DUPLICATE: 3461686

Parameter	Units	50354089003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.0	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755292
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354089004, 50354175001, 50354261001, 50354261002, 50354261003, 50354261004

SAMPLE DUPLICATE: 3461704

Parameter	Units	50354237004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.4	0	2	H3

SAMPLE DUPLICATE: 3461705

Parameter	Units	50354261004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755549
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354261005, 50354261006, 50354261007, 50354261008, 50354383001, 50354383002, 50354383003, 50354383004

SAMPLE DUPLICATE: 3462595

Parameter	Units	50354389001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

SAMPLE DUPLICATE: 3462596

Parameter	Units	50354383001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755727
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354467001, 50354467002, 50354467003, 50354467004, 50354467005, 50354592001, 50354592002, 50354592003

SAMPLE DUPLICATE: 3463375

Parameter	Units	50354674001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.5	0	2	H3

SAMPLE DUPLICATE: 3463376

Parameter	Units	50354599002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 755771
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50354669001, 50354669002, 50354669003, 50354669004, 50354669005, 50354669006

SAMPLE DUPLICATE: 3463572

Parameter	Units	50354861001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	8.0	1	2	H3

SAMPLE DUPLICATE: 3463573

Parameter	Units	50354760002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.8	7.8	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 757201
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355025001, 50355025002

SAMPLE DUPLICATE: 3470212

Parameter	Units	50355008001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

SAMPLE DUPLICATE: 3470213

Parameter	Units	50355008002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	8.1	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 757547
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355129001, 50355129002, 50355221001, 50355221002

SAMPLE DUPLICATE: 3472014

Parameter	Units	50354398001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.2	1	2	H3

SAMPLE DUPLICATE: 3472015

Parameter	Units	50355221002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.3	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Assessment
Pace Project No.: 50353874

QC Batch: 757752
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355221003, 50355221004, 50355221005

SAMPLE DUPLICATE: 3472674

Parameter	Units	50355221003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.4	1	2	H3

SAMPLE DUPLICATE: 3472675

Parameter	Units	50355295001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.9	6.9	0	2	H3

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QUALIFIERS

Project: RMSGS Assessment
Pace Project No.: 50353874

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	The opening CRDL recovery exceeded acceptance limits (132% recovery)
2d	The opening CRDL recovery exceeded acceptance limits (143% recovery).
C0	Result confirmed by second analysis.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50353874001	**GAMW-01-091323**	EPA 9056	753029		
50353874002	**GAMW-01B-091323**	EPA 9056	753029		
50353997001	**GAMW-14-091423**	EPA 9056	753028		
50353997002	**GAMW-14B-091423**	EPA 9056	753028		
50353997003	**GAMW-13-091423**	EPA 9056	753028		
50353997004	**GAMW-13B-091423**	EPA 9056	753028		
50354089001	**GAMW-12-091523**	EPA 9056	753497		
50354089002	**GAMW-12B-091523**	EPA 9056	753497		
50354089003	**GAMW-03-091523**	EPA 9056	753497		
50354089004	**GAMW-03B-091523**	EPA 9056	753497		
50354175001	**GAMW-51-091823**	EPA 9056	753498		
50354261001	**GAMW-51B-091923**	EPA 9056	754174		
50354261002	**GAMW-08-091923**	EPA 9056	754174		
50354261003	**GAMW-08B-091923**	EPA 9056	754174		
50354261004	**FD-03-091923**	EPA 9056	754174		
50354261005	**FB-04-091923**	EPA 9056	754174		
50354261006	**GAMW-60-091923**	EPA 9056	754174		
50354261007	**GAMW-60B-091923**	EPA 9056	754174		
50354261008	**GAMW-59-091923**	EPA 9056	754174		
50354383001	**GAMW-16R-092023**	EPA 9056	754175		
50354383002	**GAMW-16BR-092023**	EPA 9056	754175		
50354383003	**GAMW-59B-092023**	EPA 9056	754175		
50354383004	**GAMW-17-092023**	EPA 9056	754175		
50354467001	**GAMW-09-092123**	EPA 9056	754175		
50354467002	**GAMW-09B-092123**	EPA 9056	754175		
50354467003	**GAMW-18-092123**	EPA 9056	754175		
50354467004	**FB-03-092123**	EPA 9056	754175		
50354467005	**FD-04-092123**	EPA 9056	754175		
50354592001	**GAMW-18B-092223**	EPA 9056	754343		
50354592002	**GAMW-56-092223**	EPA 9056	754343		
50354592003	**FD-05-092223**	EPA 9056	754343		
50354669001	**GAMW-54-092523**	EPA 9056	754803		
50354669002	**GAMW-54B-092523**	EPA 9056	754803		
50354669003	**FB-05-092523**	EPA 9056	754803		
50354669004	**GAMW-56B-092523**	EPA 9056	754803		
50354669005	**GAMW-52-092523**	EPA 9056	754803		
50354669006	**GAMW-52B-092523**	EPA 9056	754803		
50355025001	**GAMW-53-092823**	EPA 9056	756729		
50355025002	**GAMW-53B-092823**	EPA 9056	756729		
50355129001	**GAMW-55R-092923**	EPA 9056	756729		
50355129002	**GAMW-55B-092923**	EPA 9056	756729		
50355221001	**GAMW-17B-100223**	EPA 9056	757025		
50355221002	**GAMW-68-100223**	EPA 9056	757025		
50355221003	**GAMW-68B-100223**	EPA 9056	757025		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355221004	**FD-06-100223**	EPA 9056	757025		
50355221005	**FB-06-100224**	EPA 9056	757025		
50353874001	**GAMW-01-091323**	EPA 3010	753049	EPA 6010	754056
50353874002	**GAMW-01B-091323**	EPA 3010	753049	EPA 6010	754056
50353997001	**GAMW-14-091423**	EPA 3010	753052	EPA 6010	754040
50353997002	**GAMW-14B-091423**	EPA 3010	753052	EPA 6010	754040
50353997003	**GAMW-13-091423**	EPA 3010	753052	EPA 6010	754040
50353997004	**GAMW-13B-091423**	EPA 3010	753052	EPA 6010	754040
50354089001	**GAMW-12-091523**	EPA 3010	753052	EPA 6010	754040
50354089002	**GAMW-12B-091523**	EPA 3010	753052	EPA 6010	754040
50354089003	**GAMW-03-091523**	EPA 3010	753052	EPA 6010	754040
50354089004	**GAMW-03B-091523**	EPA 3010	753052	EPA 6010	754040
50354175001	**GAMW-51-091823**	EPA 3010	753604	EPA 6010	754061
50354261001	**GAMW-51B-091923**	EPA 3010	753604	EPA 6010	754061
50354261002	**GAMW-08-091923**	EPA 3010	753604	EPA 6010	754061
50354261003	**GAMW-08B-091923**	EPA 3010	753604	EPA 6010	754061
50354261004	**FD-03-091923**	EPA 3010	753604	EPA 6010	754061
50354261005	**FB-04-091923**	EPA 3010	753604	EPA 6010	754061
50354261006	**GAMW-60-091923**	EPA 3010	753604	EPA 6010	754061
50354261007	**GAMW-60B-091923**	EPA 3010	753604	EPA 6010	754061
50354261008	**GAMW-59-091923**	EPA 3010	753604	EPA 6010	754061
50354383001	**GAMW-16R-092023**	EPA 3010	754101	EPA 6010	755026
50354383002	**GAMW-16BR-092023**	EPA 3010	754101	EPA 6010	755026
50354383003	**GAMW-59B-092023**	EPA 3010	754101	EPA 6010	755026
50354383004	**GAMW-17-092023**	EPA 3010	754101	EPA 6010	755026
50354467001	**GAMW-09-092123**	EPA 3010	754101	EPA 6010	755026
50354467002	**GAMW-09B-092123**	EPA 3010	754101	EPA 6010	755026
50354467003	**GAMW-18-092123**	EPA 3010	754101	EPA 6010	755026
50354467004	**FB-03-092123**	EPA 3010	754101	EPA 6010	755026
50354467005	**FD-04-092123**	EPA 3010	754101	EPA 6010	755026
50354592001	**GAMW-18B-092223**	EPA 3010	754484	EPA 6010	755970
50354592002	**GAMW-56-092223**	EPA 3010	754484	EPA 6010	755970
50354592003	**FD-05-092223**	EPA 3010	754484	EPA 6010	755970
50354669001	**GAMW-54-092523**	EPA 3010	754484	EPA 6010	755970
50354669002	**GAMW-54B-092523**	EPA 3010	754484	EPA 6010	755970
50354669003	**FB-05-092523**	EPA 3010	754484	EPA 6010	755970
50354669004	**GAMW-56B-092523**	EPA 3010	754484	EPA 6010	755970
50354669005	**GAMW-52-092523**	EPA 3010	754484	EPA 6010	755970
50354669006	**GAMW-52B-092523**	EPA 3010	754484	EPA 6010	755970
50355025001	**GAMW-53-092823**	EPA 3010	755296	EPA 6010	756954
50355025002	**GAMW-53B-092823**	EPA 3010	755296	EPA 6010	756954
50355129001	**GAMW-55R-092923**	EPA 3010	755296	EPA 6010	756954
50355129002	**GAMW-55B-092923**	EPA 3010	755296	EPA 6010	756954
50355221001	**GAMW-17B-100223**	EPA 3010	755562	EPA 6010	757373
50355221002	**GAMW-68-100223**	EPA 3010	755562	EPA 6010	757373

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355221003	**GAMW-68B-100223**	EPA 3010	755562	EPA 6010	757373
50355221004	**FD-06-100223**	EPA 3010	755562	EPA 6010	757373
50355221005	**FB-06-100224**	EPA 3010	755562	EPA 6010	757373
50353874001	**GAMW-01-091323**	EPA 200.2	753448	EPA 6020	753802
50353874002	**GAMW-01B-091323**	EPA 200.2	753448	EPA 6020	753802
50353997001	**GAMW-14-091423**	EPA 200.2	753448	EPA 6020	753802
50353997002	**GAMW-14B-091423**	EPA 200.2	753448	EPA 6020	753802
50353997003	**GAMW-13-091423**	EPA 200.2	753448	EPA 6020	753802
50353997004	**GAMW-13B-091423**	EPA 200.2	753448	EPA 6020	753802
50354089001	**GAMW-12-091523**	EPA 200.2	753448	EPA 6020	753802
50354089002	**GAMW-12B-091523**	EPA 200.2	753448	EPA 6020	753802
50354089003	**GAMW-03-091523**	EPA 200.2	753448	EPA 6020	753802
50354089004	**GAMW-03B-091523**	EPA 200.2	753448	EPA 6020	753802
50354175001	**GAMW-51-091823**	EPA 200.2	753448	EPA 6020	753802
50354261001	**GAMW-51B-091923**	EPA 200.2	754116	EPA 6020	754501
50354261002	**GAMW-08-091923**	EPA 200.2	754116	EPA 6020	754501
50354261003	**GAMW-08B-091923**	EPA 200.2	754116	EPA 6020	754501
50354261004	**FD-03-091923**	EPA 200.2	754116	EPA 6020	754501
50354261005	**FB-04-091923**	EPA 200.2	754116	EPA 6020	754501
50354261006	**GAMW-60-091923**	EPA 200.2	754116	EPA 6020	754501
50354261007	**GAMW-60B-091923**	EPA 200.2	754116	EPA 6020	754501
50354261008	**GAMW-59-091923**	EPA 200.2	754116	EPA 6020	754501
50354383001	**GAMW-16R-092023**	EPA 200.2	754116	EPA 6020	754501
50354383002	**GAMW-16BR-092023**	EPA 200.2	754116	EPA 6020	754501
50354383003	**GAMW-59B-092023**	EPA 200.2	754116	EPA 6020	754501
50354383004	**GAMW-17-092023**	EPA 200.2	754116	EPA 6020	754501
50354467001	**GAMW-09-092123**	EPA 200.2	754116	EPA 6020	754501
50354467002	**GAMW-09B-092123**	EPA 200.2	754116	EPA 6020	754501
50354467003	**GAMW-18-092123**	EPA 200.2	754116	EPA 6020	754501
50354467004	**FB-03-092123**	EPA 200.2	754116	EPA 6020	754501
50354467005	**FD-04-092123**	EPA 200.2	754116	EPA 6020	754501
50354592001	**GAMW-18B-092223**	EPA 200.2	754328	EPA 6020	754519
50354592002	**GAMW-56-092223**	EPA 200.2	754328	EPA 6020	754519
50354592003	**FD-05-092223**	EPA 200.2	754328	EPA 6020	754519
50354669001	**GAMW-54-092523**	EPA 200.2	754691	EPA 6020	754947
50354669002	**GAMW-54B-092523**	EPA 200.2	754691	EPA 6020	754947
50354669003	**FB-05-092523**	EPA 200.2	754691	EPA 6020	754947
50354669004	**GAMW-56B-092523**	EPA 200.2	754691	EPA 6020	754947
50354669005	**GAMW-52-092523**	EPA 200.2	754691	EPA 6020	754947
50354669006	**GAMW-52B-092523**	EPA 200.2	754691	EPA 6020	754947
50355025001	**GAMW-53-092823**	EPA 200.2	755244	EPA 6020	755556
50355025002	**GAMW-53B-092823**	EPA 200.2	755244	EPA 6020	755556
50355129001	**GAMW-55R-092923**	EPA 200.2	755244	EPA 6020	755556
50355129002	**GAMW-55B-092923**	EPA 200.2	755244	EPA 6020	755556
50355221001	**GAMW-17B-100223**	EPA 200.2	755546	EPA 6020	755787
50355221002	**GAMW-68-100223**	EPA 200.2	755546	EPA 6020	755787

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355221003	**GAMW-68B-100223**	EPA 200.2	755546	EPA 6020	755787
50355221004	**FD-06-100223**	EPA 200.2	755546	EPA 6020	755787
50355221005	**FB-06-100224**	EPA 200.2	755546	EPA 6020	755787
50353874001	**GAMW-01-091323**	EPA 7470	753339	EPA 7470	753812
50353874002	**GAMW-01B-091323**	EPA 7470	753339	EPA 7470	753812
50353997001	**GAMW-14-091423**	EPA 7470	753735	EPA 7470	753880
50353997002	**GAMW-14B-091423**	EPA 7470	753735	EPA 7470	753880
50353997003	**GAMW-13-091423**	EPA 7470	753735	EPA 7470	753880
50353997004	**GAMW-13B-091423**	EPA 7470	753735	EPA 7470	753880
50354089001	**GAMW-12-091523**	EPA 7470	753735	EPA 7470	753880
50354089002	**GAMW-12B-091523**	EPA 7470	753735	EPA 7470	753880
50354089003	**GAMW-03-091523**	EPA 7470	753735	EPA 7470	753880
50354089004	**GAMW-03B-091523**	EPA 7470	753735	EPA 7470	753880
50354175001	**GAMW-51-091823**	EPA 7470	753735	EPA 7470	753880
50354261001	**GAMW-51B-091923**	EPA 7470	753840	EPA 7470	754090
50354261002	**GAMW-08-091923**	EPA 7470	753840	EPA 7470	754090
50354261003	**GAMW-08B-091923**	EPA 7470	753840	EPA 7470	754090
50354261004	**FD-03-091923**	EPA 7470	753840	EPA 7470	754090
50354261005	**FB-04-091923**	EPA 7470	753840	EPA 7470	754090
50354261006	**GAMW-60-091923**	EPA 7470	753840	EPA 7470	754090
50354261007	**GAMW-60B-091923**	EPA 7470	753840	EPA 7470	754090
50354261008	**GAMW-59-091923**	EPA 7470	753840	EPA 7470	754090
50354383001	**GAMW-16R-092023**	EPA 7470	754096	EPA 7470	754302
50354383002	**GAMW-16BR-092023**	EPA 7470	754096	EPA 7470	754302
50354383003	**GAMW-59B-092023**	EPA 7470	754096	EPA 7470	754302
50354383004	**GAMW-17-092023**	EPA 7470	754096	EPA 7470	754302
50354467001	**GAMW-09-092123**	EPA 7470	754285	EPA 7470	754489
50354467002	**GAMW-09B-092123**	EPA 7470	754285	EPA 7470	754489
50354467003	**GAMW-18-092123**	EPA 7470	754285	EPA 7470	754489
50354467004	**FB-03-092123**	EPA 7470	754285	EPA 7470	754489
50354467005	**FD-04-092123**	EPA 7470	754285	EPA 7470	754489
50354592001	**GAMW-18B-092223**	EPA 7470	754832	EPA 7470	755211
50354592002	**GAMW-56-092223**	EPA 7470	754832	EPA 7470	755211
50354592003	**FD-05-092223**	EPA 7470	754832	EPA 7470	755211
50354669001	**GAMW-54-092523**	EPA 7470	754832	EPA 7470	755211
50354669002	**GAMW-54B-092523**	EPA 7470	754832	EPA 7470	755211
50354669003	**FB-05-092523**	EPA 7470	754832	EPA 7470	755211
50354669004	**GAMW-56B-092523**	EPA 7470	754832	EPA 7470	755211
50354669005	**GAMW-52-092523**	EPA 7470	754832	EPA 7470	755211
50354669006	**GAMW-52B-092523**	EPA 7470	754832	EPA 7470	755211
50355025001	**GAMW-53-092823**	EPA 7470	756358	EPA 7470	756456
50355025002	**GAMW-53B-092823**	EPA 7470	756358	EPA 7470	756456
50355129001	**GAMW-55R-092923**	EPA 7470	756283	EPA 7470	756455
50355129002	**GAMW-55B-092923**	EPA 7470	756283	EPA 7470	756455

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355221001	**GAMW-17B-100223**	EPA 7470	755670	EPA 7470	755831
50355221002	**GAMW-68-100223**	EPA 7470	755670	EPA 7470	755831
50355221003	**GAMW-68B-100223**	EPA 7470	755670	EPA 7470	755831
50355221004	**FD-06-100223**	EPA 7470	755670	EPA 7470	755831
50355221005	**FB-06-100224**	EPA 7470	755670	EPA 7470	755831
50353874001	**GAMW-01-091323**	SM 2540C	753291		
50353874002	**GAMW-01B-091323**	SM 2540C	753291		
50353997001	**GAMW-14-091423**	SM 2540C	753524		
50353997002	**GAMW-14B-091423**	SM 2540C	753524		
50353997003	**GAMW-13-091423**	SM 2540C	753524		
50353997004	**GAMW-13B-091423**	SM 2540C	753524		
50354089001	**GAMW-12-091523**	SM 2540C	753743		
50354089002	**GAMW-12B-091523**	SM 2540C	753743		
50354089003	**GAMW-03-091523**	SM 2540C	753743		
50354089004	**GAMW-03B-091523**	SM 2540C	753743		
50354175001	**GAMW-51-091823**	SM 2540C	753744		
50354261001	**GAMW-51B-091923**	SM 2540C	754177		
50354261002	**GAMW-08-091923**	SM 2540C	754177		
50354261003	**GAMW-08B-091923**	SM 2540C	754177		
50354261004	**FD-03-091923**	SM 2540C	754177		
50354261005	**FB-04-091923**	SM 2540C	754177		
50354261006	**GAMW-60-091923**	SM 2540C	754177		
50354261007	**GAMW-60B-091923**	SM 2540C	754177		
50354261008	**GAMW-59-091923**	SM 2540C	754177		
50354383001	**GAMW-16R-092023**	SM 2540C	754613		
50354383002	**GAMW-16BR-092023**	SM 2540C	754613		
50354383003	**GAMW-59B-092023**	SM 2540C	754613		
50354383004	**GAMW-17-092023**	SM 2540C	754613		
50354467001	**GAMW-09-092123**	SM 2540C	754860		
50354467002	**GAMW-09B-092123**	SM 2540C	754860		
50354467003	**GAMW-18-092123**	SM 2540C	754860		
50354467004	**FB-03-092123**	SM 2540C	754860		
50354467005	**FD-04-092123**	SM 2540C	754860		
50354592001	**GAMW-18B-092223**	SM 2540C	754861		
50354592002	**GAMW-56-092223**	SM 2540C	754861		
50354592003	**FD-05-092223**	SM 2540C	754862		
50354669001	**GAMW-54-092523**	SM 2540C	755182		
50354669002	**GAMW-54B-092523**	SM 2540C	755182		
50354669003	**FB-05-092523**	SM 2540C	755182		
50354669004	**GAMW-56B-092523**	SM 2540C	755182		
50354669005	**GAMW-52-092523**	SM 2540C	755182		
50354669006	**GAMW-52B-092523**	SM 2540C	755182		
50355025001	**GAMW-53-092823**	SM 2540C	755910		

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Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355025002	**GAMW-53B-092823**	SM 2540C	755910		
50355129001	**GAMW-55R-092923**	SM 2540C	755910		
50355129002	**GAMW-55B-092923**	SM 2540C	755910		
50355221001	**GAMW-17B-100223**	SM 2540C	755913		
50355221002	**GAMW-68-100223**	SM 2540C	755913		
50355221003	**GAMW-68B-100223**	SM 2540C	755913		
50355221004	**FD-06-100223**	SM 2540C	755913		
50355221005	**FB-06-100224**	SM 2540C	755913		
50353874001	**GAMW-01-091323**	SM 4500-H+B	754506		
50353874002	**GAMW-01B-091323**	SM 4500-H+B	754506		
50353997001	**GAMW-14-091423**	SM 4500-H+B	754715		
50353997002	**GAMW-14B-091423**	SM 4500-H+B	754715		
50353997003	**GAMW-13-091423**	SM 4500-H+B	754715		
50353997004	**GAMW-13B-091423**	SM 4500-H+B	754715		
50354089001	**GAMW-12-091523**	SM 4500-H+B	755290		
50354089002	**GAMW-12B-091523**	SM 4500-H+B	755290		
50354089003	**GAMW-03-091523**	SM 4500-H+B	755290		
50354089004	**GAMW-03B-091523**	SM 4500-H+B	755292		
50354175001	**GAMW-51-091823**	SM 4500-H+B	755292		
50354261001	**GAMW-51B-091923**	SM 4500-H+B	755292		
50354261002	**GAMW-08-091923**	SM 4500-H+B	755292		
50354261003	**GAMW-08B-091923**	SM 4500-H+B	755292		
50354261004	**FD-03-091923**	SM 4500-H+B	755292		
50354261005	**FB-04-091923**	SM 4500-H+B	755549		
50354261006	**GAMW-60-091923**	SM 4500-H+B	755549		
50354261007	**GAMW-60B-091923**	SM 4500-H+B	755549		
50354261008	**GAMW-59-091923**	SM 4500-H+B	755549		
50354383001	**GAMW-16R-092023**	SM 4500-H+B	755549		
50354383002	**GAMW-16BR-092023**	SM 4500-H+B	755549		
50354383003	**GAMW-59B-092023**	SM 4500-H+B	755549		
50354383004	**GAMW-17-092023**	SM 4500-H+B	755549		
50354467001	**GAMW-09-092123**	SM 4500-H+B	755727		
50354467002	**GAMW-09B-092123**	SM 4500-H+B	755727		
50354467003	**GAMW-18-092123**	SM 4500-H+B	755727		
50354467004	**FB-03-092123**	SM 4500-H+B	755727		
50354467005	**FD-04-092123**	SM 4500-H+B	755727		
50354592001	**GAMW-18B-092223**	SM 4500-H+B	755727		
50354592002	**GAMW-56-092223**	SM 4500-H+B	755727		
50354592003	**FD-05-092223**	SM 4500-H+B	755727		
50354669001	**GAMW-54-092523**	SM 4500-H+B	755771		
50354669002	**GAMW-54B-092523**	SM 4500-H+B	755771		
50354669003	**FB-05-092523**	SM 4500-H+B	755771		
50354669004	**GAMW-56B-092523**	SM 4500-H+B	755771		
50354669005	**GAMW-52-092523**	SM 4500-H+B	755771		
50354669006	**GAMW-52B-092523**	SM 4500-H+B	755771		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353874

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355025001	**GAMW-53-092823**	SM 4500-H+B	757201		
50355025002	**GAMW-53B-092823**	SM 4500-H+B	757201		
50355129001	**GAMW-55R-092923**	SM 4500-H+B	757547		
50355129002	**GAMW-55B-092923**	SM 4500-H+B	757547		
50355221001	**GAMW-17B-100223**	SM 4500-H+B	757547		
50355221002	**GAMW-68-100223**	SM 4500-H+B	757547		
50355221003	**GAMW-68B-100223**	SM 4500-H+B	757752		
50355221004	**FD-06-100223**	SM 4500-H+B	757752		
50355221005	**FB-06-100224**	SM 4500-H+B	757752		

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Pace Analytical
www.pacelabs.com

WO# : 50353874

50353874

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A — Required Client Information:

Company:	NiSource_WSP
Address:	801 E. 86th Avenue
	Merrillville, IN 46410
Email:	Thomas.Haskins@wsp.com
Phone:	(603)782-2433 Fax
Requested Due Date:	10 day TAT

	Sylvia
Purchase Order #:	
Project Name:	RMSGS Assessment
Project #:	31404789.011

Section C — Invoice Information:

Attention:	Jeff Loewe U126177
Company Name:	NiSource
Address:	
Pace Quote:	
Pace Project Manager:	tina.sayer@pacelabs.com,
Pace Profile #:	9045-1

Regulatory Agency
State / Location
IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
1	GAMW-01-091323	WT	G			9/13/23	1335		3	2		1						X	X	X	X	
2	GAMW-01B-091323	WT	G			9/13/23	1480		3	2		1						X	X	X	X	
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010;	FE WSP	9/13/23	1630	FE David Reeves/Pace	9/14/23	0915	1.7	y	Y	Y
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020										
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/13/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 09/14/23 10:40

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D (E) F G H

4. **Cooler Temperature(s):** 1.1°/1.1°C | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic ZPLC

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/ZnAc >9
1																	1	1	1								WT	✓			
2																	1	1	1								WT	✓			
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical
www.pacelabs.com

WO# : 50353997

50353997

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A — Required Client Information:

Company:	NiSource_W
Address:	801 E. 86th A
	Merrillville, IN 46410
Email:	Thomas.Haskins@wsp.com
Phone:	(603)782-2433 Fax
Requested Due Date:	10 day TAT

Section B

	Sylvia
Purchase Order #:	PO33924
Project Name:	RMSGS Assessment
Project #:	31404789.011

Section C — Invoice Information:

Attention:	Jeff Loewe U126177
Company Name:	NiSource
Address:	
Pace Quote:	
Pace Project Manager:	tina.sayer@pacelabs.com,
Pace Profile #:	9045-1

Regulatory Agency	
State / Location	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
1	GAMW-14 – 091423	WT	G			9/14/23	1005		3	2		1							X	X	X		
2	GAMW-14B – 091423	WT	G			9/14/23	1105		3	2		1							X	X	X		
3	GAMW-13 – 091423	WT	G			9/14/23	1210		3	2		1							X	X	X		MS-02/MSD-02
4	GAMW-13B – 091423	WT	G			9/14/23	1325		3	2		1							X	X	X		
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
**B,Ca,Li by 6010;	WSP	9/14/23	1600	FedEx		
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FedEx	9/15/23	905		9/15/23	905
Hg by 7470						

SAMPLE CONDITIONS			
3.9	4	4	4
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/14/23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/15/23 1100 TW

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 3.5/3.4 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic/ZPLC
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		/	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: ~~HNO3 (<2)~~ **H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	/		
Short Hold Time Analysis (48 hours or less)? Analysis:		/				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			/
Rush TAT Requested (4 days or less):		/	Residual Chlorine Check (Total/Amenable/Free Cyanide)			/
Custody Signatures Present?	/		Headspace Wisconsin Sulfide?			/
Containers Intact?:	/		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent /
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	/		Trip Blank Present?		/	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			/

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1	1								WT	✓			
2																	1	1	1												
3																	3	3	3												
4																	1	1	1												
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50354089

50354089

alytical Request Document

MENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Projec			
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-12-091523	WT	G			9/15/23	1015		3	2		1							X	X	X		001
2	GAMW-12B-091523	WT	G			9/15/23	1100		3	2		1							X	X	X		002
3	GAMW-03-091523	WT	G			9/15/23	1210		3	2		1							X	X	X		003
4	GAMW-03B-091523	WT	G			9/15/23	1425		3	2		1							X	X	X		004
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B Ca,Li by 6010	WSP	9/15/23		FedEx						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FedEx	9.16.23	0905	Client State) / PACE	9.16.23	0905	0.8	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. Gilles

SIGNATURE of SAMPLER:

DATE Signed: 9/15/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 09.16.2023 1100

1. Courier: [X] FED EX [ ] UPS [ ] CLIENT [ ] PACE [ ] NOW/JETT [ ] OTHER

2. Custody Seal on Cooler/Box Present: [X] Yes [ ] No

(If yes)Seals Intact: [X] Yes [ ] No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C (D) E F G H

4. Cooler Temperature(s): 0.8/0.8 | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: [X] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other

6. Ice Type: [X] Wet [ ] Blue [ ] None

7. If temp. is over 6°C or under 0°C, was the PM notified? [ ] Yes [ ] No
(Cooler temp should be above freezing to 6°C)

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X
Short Hold Time Analysis (48 hours or less)? Analysis:		X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		X
Custody Signatures Present?	X	
Containers Intact?	X	
Sample Label (IDs/Dates/Times) Match COC? Except TCs, which only require sample ID	X	
Extra labels on Terracore Vials? (soils only)		X

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED? Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCL. Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non conformance to pH recommendations will be noted on the container count form	X		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Headspace Wisconsin Sulfide?			X
Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Trip Blank Present?		X	
Trip Blank Custody Seals?			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1																	1	1	1									WT
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2 ✓	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50354175

50354175

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140478 9.011	Pace Profile #:	9045-1

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
1	GAMW-51-091823	WT	G			9/18/23	1415		3	2		1							X	X	X	X	
2																							
3																							
4																							
5																							
6																							
7																							
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9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Seal Cooler (Y/N)	Samples Intact (Y/N)
**B,Ca,Li by 6010;	WSP	9/18/23	1600	Fedex						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	Fedex	9/19/23	0905		9/19/23	0905	0.8	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/18/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/19/23 1100 LR

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E (F) G H

4. **Cooler Temperature(s):** 0.9/0.8 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X	**Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form LR 9/19			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1	1									WT	✓			
2																																
3																																
4																																
5																																
6																																
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8																																
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Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
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DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
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WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50354261

50354261

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Required Project Information:	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	Regulatory Agency
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource	
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax:	Project Name: RMSGS Assessment	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-1	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-51B-091923	WT	G			9/19/23	1105		3	2		1						X	X	X	X		001
2	GAMW-08-091923	WT	G			9/19/23	1240		3	2		1						X	X	X	X		002
3	GAMW-08B-091923	WT	G			9/19/23	1355		3	2		1						X	X	X	X		003
4	FD-03-091923	WT	G			9/19/23	1200		3	2		1						X	X	X	X		004
5	FB-01-091923	WT	G			9/19/23	1410		3	2		1						X	X	X	X		005
6	GAMW-60-091923	WT	G			9/19/23	1105		3	2		1						X	X	X	X		006	[illegible]
7	GAMW-60B-091923	WT	G			9/19/23	1220		3	2		1						X	X	X	X		007
8	GAMW-59-091923	WT	G			9/19/23	1320		3	2		1						X	X	X	X		008
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010;	[signature] / NSP	9/19/23	1630	Fedex						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	Fedex	9/20/23	0920	[signature]	9/20/23	0920	[illegible]	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [signature]

SIGNATURE of SAMPLER: [signature] DATE Signed: 9/19/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/20/23 0950 LR

1. **Courier:** [X] FED EX [ ] UPS [ ] CLIENT [ ] PACE [ ] NOW/JETT [ ] OTHER _____

2. **Custody Seal on Cooler/Box Present:** [X] Yes [ ] No

(If yes)Seals Intact: [X] Yes [ ] No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.4/1.3	1.5/1.4		

5. **Packing Material:** [X] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other _____

6. **Ice Type:** [X] Wet [ ] Blue [ ] None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** [ ] Yes [ ] No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1	1								WT	1			
2																															
3																															
4																															
5																															
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CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
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BG1S	1L H2SO4 clear glass		

Plastic

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BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
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BP3S	250mL H2SO4 plastic		
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BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

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U	Summa Can (air sample)
WT	Water
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NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

WO# : 50354383

50354383

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	NiSource WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	3140789.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-16R-092023	WT	G			9/20/23	1045		3	2		1						X	X	X	X		MS-03/MSD-03 001
2	GAMW-16BR-092023	WT	G			9/20/23	1210		3	2		1						X	X	X	X		002
3	GAMW-59B-092023	WT	G			9/20/23	1145		3	2		1						X	X	X	X		003
4	GAMW-17-092023	WT	G			9/20/23	1310		3	2		1						X	X	X	X		004
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**B,Ca,Li by 6010;	WSP	9/20/23	1600	Fedex			
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	Fedex	9/21/23	0920		9/21/23	0920	See Sample Y Y Y
Hg by 7470							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/20/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/21/23 1015 LR

1. **Courier:** ☒FED EX ☐UPS ☐CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G (H)

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.0/1.0	6.6/0.6		

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) ~~H2SO4 (<2)~~ NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form LR 9/21	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER								
			MeOH (only)																													
			SBS																													
			DI			VOA VIAL HS >6mm																											
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	3	3	3									WT	V			
2																	1	1	1													
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY

The Chain-of-Custody is a LEGAL

WO# : 50354467

50354467

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page : Of
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:		
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource	
	Merrillville, IN 46410		Sarah Gilles	Address:		Regulatory Agency
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:		
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,	State / Location
Requested Due Date:	10 day TAT	Project #:	314047789.011	Pace Profile #:	9045-1	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-09-092123	WT	G			9/21/23	1055		3	2		1					X	X	X	X		041
2	GAMW-09B-092123	WT	G			9/21/23	1205		3	2		1					X	X	X	X		002
3	GAMW-18-092123	WT	G			9/21/23	1330		3	2		1					X	X	X	X		003
4	FB-03-092123	WT	G			9/21/23	1055		3	2		1					X	X	X	X		004
5	FD-04-092123	WT	G			9/21/23	1200		3	2		1					X	X	X	X		005
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010	WSP	9/21/23	1630	FedEx						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FedEx	9-22-23	9:25		9-22-23	9:25	0.9	y	y	y
Hg by 7470							0.7	y		

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	DATE Signed: 9/21/23					

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 9-22-23 11:30

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C (D) E F G H

4. **Cooler Temperature(s):** 0.9/0.9 | 0.7/0.7 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: ~~HNO3 (<2)~~ H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																											WT	✓			
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mus

WO# : 50354592

50354592

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-1BB-092223	WT	G			9/22/23	1040		3	2		1							X	X	X			001
2	GAMW-5G-092223	WT	G			9/22/23	1200		3	2		1							X	X	X			002
3	FD-05-092223	WT	G			9/22/23	1200		3	2		1							X	X	X			003
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**B,Ca,Li by 6010;	FE/WSP	9/22/23	1500	FE						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020				David Pearson/Pace	9/23/23	0905	1.1	Y	N	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/22/23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 09/23/23 11:50

1. Courier: ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☐ Yes ☑ No *

(If yes)Seals Intact: ☐ Yes ☐ No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 1.2°/1.1°C (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. If temp. is over 6°C or under 0°C, was the PM notified?: ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS: * The cooler may have originally been rcvd custody sealed, but upon reciept, tape/seal was ripped off from an unknown cooler on the Fedex truck. DMP 9/23/23

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			MeOH (only)						AMBER GLASS							PLASTIC								OTHER				Matrix	Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																										Red	Yellow	Green	Black
			DI																												
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit			HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																	1	1	1									WT	✓			
2																	↓	↓	↓									↓	↓			
3																	↓	↓	↓									↓	↓			
4																																
5																																
6																																
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Container Codes

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DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
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CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must b

WO# : 50354669

50354669

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404784.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	IN

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-54-092523	WT	G			9/25/23	1105		3	2		1							X	X	X	X		001
2	GAMW-54B-092523	WT	G			9/25/23	1245		3	2		1							X	X	X	X		002
3	FB-05-092523	WT	G			9/25/23	1320		3	2		1							X	X	X	X		003
4	GAMW-56B-092523	WT	G			9/25/23	1035		3	2		1							X	X	X	X		004
5	GAMW-52-092523	WT	G			9/25/23	1140		3	2		1							X	X	X	X		005
6	GAMW-52B-092523	WT	G			9/25/23	1305		3	2		1							X	X	X	X		006
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
**B,Ca,Li by 6010;	WSP	9/25/23	1600	FedEx	9.26.23	0915
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FedEX	9.26.23	0915	Centera Webb	9.26.23	0915
Hg by 7470						

SAMPLE CONDITIONS			
2.5/2.5	Y	Y	Y
TEMP in C	Received on Ice (Y/N)	Custody Seals Present/Intact (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R GILMAN

SIGNATURE of SAMPLER:

DATE Signed: 9/25/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: CTW 9-26-23

1. **Courier:** ☐ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 2.5/2.5 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** HNO3 (<2) ~~H2SO4~~ (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form RC 9-26-23	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** ~~NO3~~ RC 9-26-23	~~✓~~	✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less): RC 9-26-23	~~✓~~	✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?		✓	I
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1				1					WT	✓			
2																	1	1				1					WT	✓			
3																	1	1				1					WT	✓			
4																	1	1				1					WT	✓			
5																	1	1				1					WT	✓			
6																	1	1				1					WT	✓			
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mus

WO# : 50355025

50355025

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-53-092823	WT	G			9/28/23	1115		3	2		1						X	X	X	X		001
2	GAMW-53B-092823	WT	G			9/28/23	1205		3	2		1						X	X	X	X		002
3																								
4																								
5																								
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10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010;	Fedex	9/28/23	1630	Fedex						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020		9/29/23	0925		9/29/23	0925	2.0	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/29/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/29/23 1135 LR

1. **Courier:** ☒FED EX ☐UPS ☐CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 20/20 | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis:						
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

| | | |

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CHAIN-OF-CUSTODY / Analytical Reques

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields

WO# : 50355129

50355129

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177	
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource	
	Merrillville, IN 46410		Sarah Gilles	Address:		Regulatory Agency
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:		
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,	State / Location
Requested Due Date:	10 day TAT	Project #:	31404989.011	Pace Profile #:	9045-1	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																								
1	GAMW-55R-092923	WT	G			9/29/23	1120		3	2		1							X	X	X	X		001
2	GAMW-55B-092923	WT	G			9/29/23	1250		3	2		1							X	X	X	X		002
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010;	WSP	9/29/23	1500	FE						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FE			Daniel Pearson / Pace	9/30/23	09:15	0.8	Y	N	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: 9/29/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 09/30/23 11:10

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F (G) H

4. **Cooler Temperature(s):** 0.8°C / 0.8°C
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**			•
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC								OTHER							
COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1	1								WT	✓			
2																	1	1	1								WT	✓			
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

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WO# : 50355221

50355221

CHAIN-OF-CUSTODY / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A — Required Client Information:

Company:	NiSource_WSP
Address:	801 E. 86th Avenue
	Merrillville, IN 46410
Email:	Thomas.Haskins@wsp.com
Phone:	(603)782-2433 Fax:
Requested Due Date:	10 day TAT

Section B

Copy	Sarah Gilles
Purchase Order #:	PO33924
Project Name:	RMSGS Assessment
Project #:	31404789.011

Section C — Invoice Information:

Attention:	Jeff Loewe U126177
Company Name:	NiSource
Address:	
Pace Quote:	
Pace Project Manager:	tina.sayer@pacelabs.com,
Pace Profile #:	9045-1

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
1	GAMW-17B-100223	WT	G			10/2/23	1105		3	2		1							X	X	X	X	
2	GAMW-6B-100223	WT	G			10/2/23	1305		3	2		1							X	X	X	X	
3	GAMW-68B-100223	WT	G			10/2/23	1435		3	2		1							X	X	X	X	
4	FD-06-100223	WT	G			10/2/23	1200		3	2		1							X	X	X	X	
5	FB-06-100223	WT	G			10/2/23	1440		3	2		1							X	X	X	X	
6																							
7																							
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11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010	WSP	10/2/23	1700	fedex	10/2/23	1700				
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	fedex	10/3/23	0850	CR	10/3/23	0850	1.4	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 10/2/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 10/3/23 0923 CME

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F (G) H
4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.4/1.4	0.7/0.7		

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	\	\	\								WT	✓			
2																	\	\	\								WT	✓			
3																	\	\	\								WT	✓			
4																	\	\	\								WT	✓			
5																	\	\	\								WT	✓			
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

October 19, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Assessment
Pace Project No.: 50353853

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory between September 14, 2023 and October 03, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3127
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

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Pace Analytical Services, LLC
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(317)228-3100

CERTIFICATIONS

Project: RMSGS Assessment
Pace Project No.: 50353853

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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SAMPLE SUMMARY

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50353853001	**GAMW-01-091323**	Water	09/13/23 13:35	09/14/23 09:15
50353853002	**GAMW-01B-091323**	Water	09/13/23 14:30	09/14/23 09:15
50354018001	**GAMW-14-091423**	Water	09/14/23 10:05	09/15/23 09:05
50354018002	**GAMW-14B-091423**	Water	09/14/23 11:05	09/15/23 09:05
50354018003	**GAMW-13-091423**	Water	09/14/23 12:10	09/15/23 09:05
50354018004	**GAMW-13-091423 MS**	Water	09/14/23 12:10	09/15/23 09:05
50354018005	**GAMW-13-091423 MSD**	Water	09/14/23 12:10	09/15/23 09:05
50354018006	**GAMW-13B-091423**	Water	09/14/23 13:25	09/15/23 09:05
50354090001	**GAMW-12-091523**	Water	09/15/23 10:15	09/16/23 09:05
50354090002	**GAMW-12B-091523**	Water	09/15/23 11:00	09/16/23 09:05
50354090003	**GAMW-03-091523**	Water	09/15/23 12:10	09/16/23 09:05
50354090004	**GAMW-03B-091523**	Water	09/15/23 14:25	09/16/23 09:05
50354176001	**GAMW-51-091823**	Water	09/18/23 14:15	09/19/23 09:05
50354275001	**GAMW-51B-091923**	Water	09/19/23 11:05	09/20/23 09:20
50354275002	**GAMW-08-091923**	Water	09/19/23 12:40	09/20/23 09:20
50354275003	**GAMW-08B-091923**	Water	09/19/23 13:55	09/20/23 09:20
50354275004	**FD-03-091923**	Water	09/19/23 12:00	09/20/23 09:20
50354275005	**FB-04-091923**	Water	09/19/23 14:10	09/20/23 09:20
50354275006	**GAMW-60-091923**	Water	09/19/23 11:05	09/20/23 09:20
50354275007	**GAMW-60B-091923**	Water	09/19/23 12:20	09/20/23 09:20
50354275008	**GAMW-59-091923**	Water	09/19/23 13:20	09/20/23 09:20
50354380001	**GAMW-16R-092023**	Water	09/20/23 10:45	09/21/23 09:20
50354380002	**GAMW-16R-092023 MS**	Water	09/20/23 10:45	09/21/23 09:20
50354380003	**GAMW-16R-092023 MSD**	Water	09/20/23 10:45	09/21/23 09:20
50354380004	**GAMW-16BR-092023**	Water	09/20/23 12:10	09/21/23 09:20
50354380005	**GAMW-59B-092023**	Water	09/20/23 11:45	09/21/23 09:20
50354380006	**GAMW-17-092023**	Water	09/20/23 13:10	09/21/23 09:20
50354472001	**GAMW-09-092123**	Water	09/21/23 10:55	09/22/23 09:25
50354472002	**GAMW-09B-092123**	Water	09/21/23 12:05	09/22/23 09:25
50354472003	**GAMW-18-092123**	Water	09/21/23 13:30	09/22/23 09:25
50354472004	**FB-03-092123**	Water	09/21/23 10:55	09/22/23 09:25
50354472005	**FD-04-092123**	Water	09/21/23 12:00	09/22/23 09:25
50354589001	**GAMW-18B-092223**	Water	09/22/23 10:40	09/23/23 09:05
50354589002	**GAMW-56-092223**	Water	09/22/23 12:00	09/23/23 09:05
50354589003	**FD-05-092223**	Water	09/22/23 12:00	09/23/23 09:05
50354670001	**GAMW-54-092523**	Water	09/25/23 11:05	09/26/23 09:15
50354670002	**GAMW-54B-092523**	Water	09/25/23 12:45	09/26/23 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50354670003	**FB-05-092523**	Water	09/25/23 13:20	09/26/23 09:15
50354670004	**GAMW-56B-092523**	Water	09/25/23 10:35	09/26/23 09:15
50354670005	**GAMW-52-092523**	Water	09/25/23 11:40	09/26/23 09:15
50354670006	**GAMW-52B-092523**	Water	09/25/23 13:05	09/26/23 09:15
50355024001	**GAMW-53-092823**	Water	09/28/23 11:15	09/29/23 09:25
50355024002	**GAMW-53B-092823**	Water	09/28/23 12:05	09/29/23 09:25
50355128001	**GAMW-55R-092923**	Water	09/29/23 11:20	09/30/23 09:15
50355128002	**GAMW-55B-092923**	Water	09/29/23 12:50	09/30/23 09:15
50355216001	**GAMW-17B-100223**	Water	10/02/23 11:05	10/03/23 08:50
50355216002	**GAMW-68-100223**	Water	10/02/23 13:05	10/03/23 08:50
50355216003	**GAMW-68B-100223**	Water	10/02/23 14:35	10/03/23 08:50
50355216004	**FD-06-100223**	Water	10/02/23 12:00	10/03/23 08:50
50355216005	**FB-06-100223**	Water	10/02/23 14:00	10/03/23 08:50

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50353853001	**GAMW-01-091323**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50353853002	**GAMW-01B-091323**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354018001	**GAMW-14-091423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50354018002	**GAMW-14B-091423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50354018003	**GAMW-13-091423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50354018004	**GAMW-13-091423 MS**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50354018005	**GAMW-13-091423 MSD**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50354018006	**GAMW-13B-091423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50354090001	**GAMW-12-091523**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50354090002	**GAMW-12B-091523**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50354090003	**GAMW-03-091523**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50354090004	**GAMW-03B-091523**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
50354176001	**GAMW-51-091823**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50354275001	**GAMW-51B-091923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354275002	**GAMW-08-091923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354275003	**GAMW-08B-091923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354275004	**FD-03-091923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354275005	**FB-04-091923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354275006	**GAMW-60-091923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354275007	**GAMW-60B-091923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354275008	**GAMW-59-091923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354380001	**GAMW-16R-092023**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354380002	**GAMW-16R-092023 MS**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50354380003	**GAMW-16R-092023 MSD**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50354380004	**GAMW-16BR-092023**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354380005	**GAMW-59B-092023**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

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(317)228-3100

SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50354380006	**GAMW-17-092023**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354472001	**GAMW-09-092123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354472002	**GAMW-09B-092123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354472003	**GAMW-18-092123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354472004	**FB-03-092123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354472005	**FD-04-092123**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354589001	**GAMW-18B-092223**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354589002	**GAMW-56-092223**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354589003	**FD-05-092223**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354670001	**GAMW-54-092523**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354670002	**GAMW-54B-092523**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354670003	**FB-05-092523**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354670004	**GAMW-56B-092523**	EPA 903.1	CLM	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354670005	**GAMW-52-092523**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50354670006	**GAMW-52B-092523**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355024001	**GAMW-53-092823**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355024002	**GAMW-53B-092823**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355128001	**GAMW-55R-092923**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355128002	**GAMW-55B-092923**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355216001	**GAMW-17B-100223**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355216002	**GAMW-68-100223**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355216003	**GAMW-68B-100223**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355216004	**FD-06-100223**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355216005	**FB-06-100223**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50353853001	**GAMW-01-091323**					
EPA 903.1	Radium-226	0.387 ± 0.539 (0.911) C:NA T:84%	pCi/L		09/28/23 14:33	
EPA 904.0	Radium-228	0.463 ± 0.322 (0.610) C:78% T:83%	pCi/L		09/28/23 15:10	
Total Radium Calculation	Total Radium	0.850 ± 0.861 (1.52)	pCi/L		09/29/23 13:02	
50353853002	**GAMW-01B-091323**					
EPA 903.1	Radium-226	1.37 ± 0.689 (0.750) C:NA T:83%	pCi/L		09/28/23 14:33	
EPA 904.0	Radium-228	1.27 ± 0.435 (0.578) C:81% T:84%	pCi/L		09/28/23 15:10	
Total Radium Calculation	Total Radium	2.64 ± 1.12 (1.33)	pCi/L		09/29/23 13:02	
50354018001	**GAMW-14-091423**					
EPA 903.1	Radium-226	0.414 ± 0.605 (1.03) C:NA T:87%	pCi/L		09/28/23 13:03	
EPA 904.0	Radium-228	0.954 ± 0.415 (0.648) C:82% T:85%	pCi/L		10/03/23 11:38	
Total Radium Calculation	Total Radium	1.37 ± 1.02 (1.68)	pCi/L		10/05/23 16:08	
50354018002	**GAMW-14B-091423**					
EPA 903.1	Radium-226	0.872 ± 0.762 (1.17) C:NA T:83%	pCi/L		09/28/23 13:03	
EPA 904.0	Radium-228	1.55 ± 0.510 (0.655) C:81% T:83%	pCi/L		10/03/23 11:38	
Total Radium Calculation	Total Radium	2.42 ± 1.27 (1.83)	pCi/L		10/05/23 16:08	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354018003	**GAMW-13-091423**					
EPA 903.1	Radium-226	0.0455 ± 0.368 (0.722) C:NA T:89%	pCi/L		09/28/23 13:03	
EPA 904.0	Radium-228	1.50 ± 0.534 (0.765) C:79% T:84%	pCi/L		10/03/23 11:39	
Total Radium Calculation	Total Radium	1.55 ± 0.902 (1.49)	pCi/L		10/05/23 16:08	
50354018004	**GAMW-13-091423 MS**					
EPA 903.1	Radium-226	112.48 %REC ± NA (NA) C:NA T:NA	pCi/L		09/28/23 13:20	
EPA 904.0	Radium-228	84.34 %REC ± NA (NA) C:NA T:NA	pCi/L		10/03/23 11:39	
50354018005	**GAMW-13-091423 MSD**					
EPA 903.1	Radium-226	117.02 %REC 3.95RPD ± NA (NA) C:NA T:NA	pCi/L		09/28/23 13:20	
EPA 904.0	Radium-228	106.16 %REC 22.91RPD ± NA (NA) C:NA T:NA	pCi/L		10/03/23 11:39	
50354018006	**GAMW-13B-091423**					
EPA 903.1	Radium-226	0.815 ± 0.672 (0.971) C:NA T:82%	pCi/L		09/28/23 13:20	
EPA 904.0	Radium-228	2.20 ± 0.669 (0.816) C:80% T:74%	pCi/L		10/03/23 11:39	
Total Radium Calculation	Total Radium	3.02 ± 1.34 (1.79)	pCi/L		10/05/23 16:08	
50354090001	**GAMW-12-091523**					
EPA 903.1	Radium-226	0.494 ± 0.367 (0.459) C:NA T:94%	pCi/L		10/02/23 13:32	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354090001	**GAMW-12-091523**					
EPA 904.0	Radium-228	0.902 ± 0.389 (0.611) C:78% T:86%	pCi/L		10/03/23 12:45	
Total Radium Calculation	Total Radium	1.40 ± 0.756 (1.07)	pCi/L		10/05/23 16:08	
50354090002	**GAMW-12B-091523**					
EPA 903.1	Radium-226	0.507 ± 0.510 (0.804) C:NA T:88%	pCi/L		10/02/23 13:32	
EPA 904.0	Radium-228	0.176 ± 0.289 (0.628) C:81% T:86%	pCi/L		10/03/23 12:45	
Total Radium Calculation	Total Radium	0.683 ± 0.799 (1.43)	pCi/L		10/05/23 16:08	
50354090003	**GAMW-03-091523**					
EPA 903.1	Radium-226	-0.0587 ± 0.474 (0.977) C:NA T:86%	pCi/L		10/02/23 13:52	
EPA 904.0	Radium-228	0.894 ± 0.447 (0.772) C:80% T:79%	pCi/L		10/03/23 12:46	
Total Radium Calculation	Total Radium	0.894 ± 0.921 (1.75)	pCi/L		10/05/23 16:08	
50354090004	**GAMW-03B-091523**					
EPA 903.1	Radium-226	0.584 ± 0.409 (0.493) C:NA T:87%	pCi/L		10/02/23 13:48	
EPA 904.0	Radium-228	0.744 ± 0.490 (0.953) C:76% T:84%	pCi/L		10/03/23 12:46	
Total Radium Calculation	Total Radium	1.33 ± 0.899 (1.45)	pCi/L		10/05/23 16:08	
50354176001	**GAMW-51-091823**					
EPA 903.1	Radium-226	0.523 ± 0.415 (0.540) C:NA T:86%	pCi/L		10/05/23 12:44	

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Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354176001	**GAMW-51-091823**					
EPA 904.0	Radium-228	1.58 ± 0.598 (0.914) C:76% T:73%	pCi/L		10/04/23 12:16	
Total Radium Calculation	Total Radium	2.10 ± 1.01 (1.45)	pCi/L		10/06/23 17:50	
50354275001	**GAMW-51B-091923**					
EPA 903.1	Radium-226	1.91 ± 0.795 (0.709) C:NA T:82%	pCi/L		10/05/23 13:08	
EPA 904.0	Radium-228	2.43 ± 0.765 (1.04) C:73% T:81%	pCi/L		10/04/23 12:15	
Total Radium Calculation	Total Radium	4.34 ± 1.56 (1.75)	pCi/L		10/06/23 17:50	
50354275002	**GAMW-08-091923**					
EPA 903.1	Radium-226	0.523 ± 0.366 (0.442) C:NA T:95%	pCi/L		10/05/23 13:08	
EPA 904.0	Radium-228	1.17 ± 0.598 (1.07) C:73% T:76%	pCi/L		10/04/23 15:40	
Total Radium Calculation	Total Radium	1.69 ± 0.964 (1.51)	pCi/L		10/06/23 17:50	
50354275003	**GAMW-08B-091923**					
EPA 903.1	Radium-226	0.970 ± 0.593 (0.728) C:NA T:83%	pCi/L		10/05/23 13:08	
EPA 904.0	Radium-228	0.994 ± 0.564 (1.05) C:75% T:82%	pCi/L		10/04/23 15:40	
Total Radium Calculation	Total Radium	1.96 ± 1.16 (1.78)	pCi/L		10/06/23 17:50	
50354275004	**FD-03-091923**					
EPA 903.1	Radium-226	1.63 ± 0.726 (0.726) C:NA T:87%	pCi/L		10/05/23 13:20	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354275004	**FD-03-091923**					
EPA 904.0	Radium-228	2.07 ± 0.667 (0.893) C:78% T:78%	pCi/L		10/04/23 15:40	
Total Radium Calculation	Total Radium	3.70 ± 1.39 (1.62)	pCi/L		10/06/23 17:50	
50354275005	**FB-04-091923**					
EPA 903.1	Radium-226	0.175 ± 0.413 (0.765) C:NA T:90%	pCi/L		10/05/23 13:20	
EPA 904.0	Radium-228	0.359 ± 0.537 (1.16) C:78% T:71%	pCi/L		10/04/23 15:40	
Total Radium Calculation	Total Radium	0.534 ± 0.950 (1.93)	pCi/L		10/06/23 17:50	
50354275006	**GAMW-60-091923**					
EPA 903.1	Radium-226	0.374 ± 0.459 (0.748) C:NA T:81%	pCi/L		10/05/23 13:20	
EPA 904.0	Radium-228	0.674 ± 0.521 (1.04) C:78% T:72%	pCi/L		10/04/23 15:40	
Total Radium Calculation	Total Radium	1.05 ± 0.980 (1.79)	pCi/L		10/06/23 17:50	
50354275007	**GAMW-60B-091923**					
EPA 903.1	Radium-226	2.23 ± 0.895 (0.774) C:NA T:76%	pCi/L		10/05/23 13:20	
EPA 904.0	Radium-228	2.24 ± 0.697 (0.925) C:77% T:84%	pCi/L		10/04/23 15:41	
Total Radium Calculation	Total Radium	4.47 ± 1.59 (1.70)	pCi/L		10/06/23 17:50	
50354275008	**GAMW-59-091923**					
EPA 903.1	Radium-226	0.791 ± 0.593 (0.848) C:NA T:89%	pCi/L		10/05/23 13:20	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354275008	**GAMW-59-091923**					
EPA 904.0	Radium-228	0.636 ± 0.513 (1.03) C:79% T:82%	pCi/L		10/04/23 15:41	
Total Radium Calculation	Total Radium	1.43 ± 1.11 (1.88)	pCi/L		10/06/23 17:50	
50354380001	**GAMW-16R-092023**					
EPA 903.1	Radium-226	0.197 ± 0.274 (0.458) C:NA T:92%	pCi/L		10/04/23 12:58	
EPA 904.0	Radium-228	0.594 ± 0.379 (0.707) C:84% T:78%	pCi/L		10/03/23 11:42	
Total Radium Calculation	Total Radium	0.791 ± 0.653 (1.17)	pCi/L		10/09/23 12:08	
50354380002	**GAMW-16R-092023 MS**					
EPA 903.1	Radium-226	103.18 %REC ± NA (NA) C:NA T:NA	pCi/L		10/04/23 12:58	
EPA 904.0	Radium-228	79.18 %REC ± NA (NA) C:NA T:NA	pCi/L		10/03/23 11:42	
50354380003	**GAMW-16R-092023 MSD**					
EPA 903.1	Radium-226	93.26 %REC 10.10RPD ± NA (NA) C:NA T:NA	pCi/L		10/04/23 12:58	
EPA 904.0	Radium-228	89.63 %REC 12.38RPD ± NA (NA) C:NA T:NA	pCi/L		10/03/23 11:43	
50354380004	**GAMW-16BR-092023**					
EPA 903.1	Radium-226	0.242 ± 0.503 (0.907) C:NA T:94%	pCi/L		10/04/23 12:58	
EPA 904.0	Radium-228	1.17 ± 0.548 (0.949) C:77% T:80%	pCi/L		10/03/23 11:43	
Total Radium Calculation	Total Radium	1.41 ± 1.05 (1.86)	pCi/L		10/09/23 12:08	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354380005	**GAMW-59B-092023**					
EPA 903.1	Radium-226	0.667 ± 0.524 (0.728) C:NA T:86%	pCi/L		10/04/23 12:58	
EPA 904.0	Radium-228	1.65 ± 0.621 (0.961) C:77% T:82%	pCi/L		10/03/23 15:02	
Total Radium Calculation	Total Radium	2.32 ± 1.15 (1.69)	pCi/L		10/09/23 12:08	
50354380006	**GAMW-17-092023**					
EPA 903.1	Radium-226	0.552 ± 0.637 (1.04) C:NA T:86%	pCi/L		10/04/23 12:58	
EPA 904.0	Radium-228	0.375 ± 0.368 (0.751) C:73% T:84%	pCi/L		10/03/23 15:02	
Total Radium Calculation	Total Radium	0.927 ± 1.01 (1.79)	pCi/L		10/09/23 12:08	
50354472001	**GAMW-09-092123**					
EPA 903.1	Radium-226	0.432 ± 0.633 (1.08) C:NA T:86%	pCi/L		10/06/23 13:42	
EPA 904.0	Radium-228	0.543 ± 0.343 (0.631) C:81% T:85%	pCi/L		10/05/23 15:53	
Total Radium Calculation	Total Radium	0.975 ± 0.976 (1.71)	pCi/L		10/10/23 15:15	
50354472002	**GAMW-09B-092123**					
EPA 903.1	Radium-226	0.304 ± 0.492 (0.856) C:NA T:86%	pCi/L		10/06/23 13:42	
EPA 904.0	Radium-228	1.12 ± 0.431 (0.627) C:83% T:84%	pCi/L		10/05/23 15:50	
Total Radium Calculation	Total Radium	1.42 ± 0.923 (1.48)	pCi/L		10/10/23 15:15	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354472003	**GAMW-18-092123**					
EPA 903.1	Radium-226	0.181 ± 0.428 (0.792) C:NA T:92%	pCi/L		10/06/23 13:55	
EPA 904.0	Radium-228	0.816 ± 0.545 (1.06) C:77% T:78%	pCi/L		10/05/23 15:50	
Total Radium Calculation	Total Radium	0.997 ± 0.973 (1.85)	pCi/L		10/10/23 15:15	
50354472004	**FB-03-092123**					
EPA 903.1	Radium-226	0.0558 ± 0.255 (0.518) C:NA T:92%	pCi/L		10/06/23 13:55	
EPA 904.0	Radium-228	0.558 ± 0.452 (0.903) C:75% T:87%	pCi/L		10/05/23 15:50	
Total Radium Calculation	Total Radium	0.614 ± 0.707 (1.42)	pCi/L		10/10/23 15:15	
50354472005	**FD-04-092123**					
EPA 903.1	Radium-226	0.693 ± 0.550 (0.746) C:NA T:88%	pCi/L		10/06/23 13:55	
EPA 904.0	Radium-228	1.11 ± 0.507 (0.866) C:78% T:88%	pCi/L		10/05/23 15:50	
Total Radium Calculation	Total Radium	1.80 ± 1.06 (1.61)	pCi/L		10/10/23 15:15	
50354589001	**GAMW-18B-092223**					
EPA 903.1	Radium-226	1.15 ± 0.695 (0.910) C:NA T:85%	pCi/L		10/09/23 12:12	
EPA 904.0	Radium-228	0.936 ± 0.435 (0.710) C:76% T:87%	pCi/L		10/06/23 14:57	
Total Radium Calculation	Total Radium	2.09 ± 1.13 (1.62)	pCi/L		10/09/23 16:03	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354589002	**GAMW-56-092223**					
EPA 903.1	Radium-226	0.000 ± 0.271 (0.551) C:NA T:90%	pCi/L		10/09/23 12:28	
EPA 904.0	Radium-228	0.539 ± 0.401 (0.763) C:75% T:87%	pCi/L		10/06/23 14:57	
Total Radium Calculation	Total Radium	0.539 ± 0.672 (1.31)	pCi/L		10/09/23 16:03	
50354589003	**FD-05-092223**					
EPA 903.1	Radium-226	0.406 ± 0.380 (0.538) C:NA T:97%	pCi/L		10/09/23 12:28	
EPA 904.0	Radium-228	0.783 ± 0.461 (0.837) C:76% T:82%	pCi/L		10/06/23 14:58	
Total Radium Calculation	Total Radium	1.19 ± 0.841 (1.38)	pCi/L		10/09/23 16:03	
50354670001	**GAMW-54-092523**					
EPA 903.1	Radium-226	0.0615 ± 0.497 (0.976) C:NA T:93%	pCi/L		10/10/23 14:30	
EPA 904.0	Radium-228	-0.0597 ± 0.444 (1.05) C:71% T:77%	pCi/L		10/11/23 14:25	
Total Radium Calculation	Total Radium	0.0615 ± 0.941 (2.03)	pCi/L		10/18/23 12:12	
50354670002	**GAMW-54B-092523**					
EPA 903.1	Radium-226	0.951 ± 0.634 (0.787) C:NA T:82%	pCi/L		10/10/23 14:30	
EPA 904.0	Radium-228	1.64 ± 0.618 (0.901) C:72% T:70%	pCi/L		10/16/23 12:11	
Total Radium Calculation	Total Radium	2.59 ± 1.25 (1.69)	pCi/L		10/18/23 12:12	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50354670003	**FB-05-092523**					
EPA 903.1	Radium-226	0.169 ± 0.332 (0.606) C:NA T:91%	pCi/L		10/10/23 14:30	
EPA 904.0	Radium-228	0.218 ± 0.433 (0.953) C:76% T:84%	pCi/L		10/11/23 14:26	
Total Radium Calculation	Total Radium	0.387 ± 0.765 (1.56)	pCi/L		10/18/23 12:12	
50354670004	**GAMW-56B-092523**					
EPA 903.1	Radium-226	1.36 ± 0.682 (0.743) C:NA T:83%	pCi/L		10/10/23 14:30	
EPA 904.0	Radium-228	1.07 ± 0.478 (0.778) C:82% T:73%	pCi/L		10/11/23 14:26	
Total Radium Calculation	Total Radium	2.43 ± 1.16 (1.52)	pCi/L		10/18/23 12:12	
50354670005	**GAMW-52-092523**					
EPA 903.1	Radium-226	0.636 ± 0.635 (1.01) C:NA T:92%	pCi/L		10/10/23 14:30	
EPA 904.0	Radium-228	0.454 ± 0.403 (0.816) C:79% T:82%	pCi/L		10/11/23 14:26	
Total Radium Calculation	Total Radium	1.09 ± 1.04 (1.83)	pCi/L		10/18/23 12:12	
50354670006	**GAMW-52B-092523**					
EPA 903.1	Radium-226	0.266 ± 0.611 (1.11) C:NA T:85%	pCi/L		10/10/23 14:43	
EPA 904.0	Radium-228	0.770 ± 0.420 (0.743) C:81% T:78%	pCi/L		10/11/23 14:27	
Total Radium Calculation	Total Radium	1.04 ± 1.03 (1.85)	pCi/L		10/18/23 12:12	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355024001	**GAMW-53-092823**					
EPA 903.1	Radium-226	0.0550 ± 0.358 (0.721) C:NA T:98%	pCi/L		10/12/23 13:22	
EPA 904.0	Radium-228	0.0292 ± 0.344 (0.797) C:79% T:82%	pCi/L		10/12/23 14:32	
Total Radium Calculation	Total Radium	0.0842 ± 0.702 (1.52)	pCi/L		10/17/23 08:15	
50355024002	**GAMW-53B-092823**					
EPA 903.1	Radium-226	0.724 ± 0.632 (0.957) C:NA T:88%	pCi/L		10/12/23 13:22	
EPA 904.0	Radium-228	0.725 ± 0.445 (0.824) C:78% T:78%	pCi/L		10/12/23 14:32	
Total Radium Calculation	Total Radium	1.45 ± 1.08 (1.78)	pCi/L		10/17/23 08:15	
50355128001	**GAMW-55R-092923**					
EPA 903.1	Radium-226	-0.147 ± 0.538 (1.16) C:NA T:72%	pCi/L		10/16/23 13:03	
EPA 904.0	Radium-228	0.641 ± 0.523 (1.03) C:70% T:65%	pCi/L		10/16/23 15:28	
Total Radium Calculation	Total Radium	0.641 ± 1.06 (2.19)	pCi/L		10/18/23 11:58	
50355128002	**GAMW-55B-092923**					
EPA 903.1	Radium-226	0.311 ± 0.484 (0.837) C:NA T:67%	pCi/L		10/16/23 13:03	
EPA 904.0	Radium-228	1.12 ± 0.563 (0.967) C:78% T:65%	pCi/L		10/16/23 15:28	
Total Radium Calculation	Total Radium	1.43 ± 1.05 (1.80)	pCi/L		10/18/23 11:58	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355216001	**GAMW-17B-100223**					
EPA 903.1	Radium-226	0.852 ± 0.624 (0.859) C:NA T:84%	pCi/L		10/16/23 12:14	
EPA 904.0	Radium-228	0.850 ± 0.449 (0.787) C:79% T:75%	pCi/L		10/16/23 15:27	
Total Radium Calculation	Total Radium	1.70 ± 1.07 (1.65)	pCi/L		10/18/23 16:39	
50355216002	**GAMW-68-100223**					
EPA 903.1	Radium-226	0.720 ± 0.527 (0.726) C:NA T:91%	pCi/L		10/16/23 12:14	
EPA 904.0	Radium-228	0.0892 ± 0.356 (0.807) C:84% T:77%	pCi/L		10/16/23 15:27	
Total Radium Calculation	Total Radium	0.809 ± 0.883 (1.53)	pCi/L		10/18/23 16:39	
50355216003	**GAMW-68B-100223**					
EPA 903.1	Radium-226	1.03 ± 0.711 (1.01) C:NA T:86%	pCi/L		10/16/23 12:14	
EPA 904.0	Radium-228	0.876 ± 0.450 (0.781) C:80% T:80%	pCi/L		10/16/23 15:27	
Total Radium Calculation	Total Radium	1.91 ± 1.16 (1.79)	pCi/L		10/18/23 16:39	
50355216004	**FD-06-100223**					
EPA 903.1	Radium-226	0.790 ± 0.638 (0.928) C:NA T:85%	pCi/L		10/16/23 12:28	
EPA 904.0	Radium-228	0.183 ± 0.345 (0.758) C:79% T:81%	pCi/L		10/16/23 15:27	
Total Radium Calculation	Total Radium	0.973 ± 0.983 (1.69)	pCi/L		10/18/23 16:39	

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SUMMARY OF DETECTION

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355216005	**FB-06-100223**					
EPA 903.1	Radium-226	0.0657 ± 0.561 (1.09) C:NA T:85%	pCi/L		10/16/23 12:28	
EPA 904.0	Radium-228	0.0828 ± 0.326 (0.743) C:83% T:76%	pCi/L		10/16/23 15:28	
Total Radium Calculation	Total Radium	0.149 ± 0.887 (1.83)	pCi/L		10/18/23 16:39	

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353853

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: NiSource_WSP Golder
Date: October 19, 2023

General Information:
50 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353853

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: NiSource_WSP Golder
Date: October 19, 2023

General Information:
50 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Assessment
Pace Project No.: 50353853

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: NiSource_WSP Golder
Date: October 19, 2023

General Information:
46 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-01-091323 **Lab ID: 50353853001** Collected: 09/13/23 13:35 Received: 09/14/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.387 ± 0.539 (0.911) C:NA T:84%**	pCi/L	09/28/23 14:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.463 ± 0.322 (0.610) C:78% T:83%**	pCi/L	09/28/23 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.850 ± 0.861 (1.52)**	pCi/L	09/29/23 13:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-01B-091323 **Lab ID: 50353853002** Collected: 09/13/23 14:30 Received: 09/14/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.37 ± 0.689 (0.750) C:NA T:83%**	pCi/L	09/28/23 14:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.27 ± 0.435 (0.578) C:81% T:84%**	pCi/L	09/28/23 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.64 ± 1.12 (1.33)**	pCi/L	09/29/23 13:02	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-14-091423 **Lab ID: 50354018001** Collected: 09/14/23 10:05 Received: 09/15/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.414 ± 0.605 (1.03) C:NA T:87%**	pCi/L	09/28/23 13:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.954 ± 0.415 (0.648) C:82% T:85%**	pCi/L	10/03/23 11:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.37 ± 1.02 (1.68)**	pCi/L	10/05/23 16:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-14B-091423 **Lab ID: 50354018002** Collected: 09/14/23 11:05 Received: 09/15/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.872 ± 0.762 (1.17) C:NA T:83%**	pCi/L	09/28/23 13:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.55 ± 0.510 (0.655) C:81% T:83%**	pCi/L	10/03/23 11:38	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.42 ± 1.27 (1.83)**	pCi/L	10/05/23 16:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-13-091423 **Lab ID: 50354018003** Collected: 09/14/23 12:10 Received: 09/15/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0455 ± 0.368 (0.722) C:NA T:89%**	pCi/L	09/28/23 13:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.50 ± 0.534 (0.765) C:79% T:84%**	pCi/L	10/03/23 11:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.55 ± 0.902 (1.49)**	pCi/L	10/05/23 16:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-13-091423 MS **Lab ID: 50354018004** Collected: 09/14/23 12:10 Received: 09/15/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**112.48 %REC ± NA (NA) C:NA T:NA**	pCi/L	09/28/23 13:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**84.34 %REC ± NA (NA) C:NA T:NA**	pCi/L	10/03/23 11:39	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-13-091423 MSD **Lab ID: 50354018005** Collected: 09/14/23 12:10 Received: 09/15/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**117.02 %REC 3.95RPD ± NA (NA) C:NA T:NA**	pCi/L	09/28/23 13:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**106.16 %REC 22.91RPD ± NA (NA) C:NA T:NA**	pCi/L	10/03/23 11:39	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-13B-091423 **Lab ID: 50354018006** Collected: 09/14/23 13:25 Received: 09/15/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.815 ± 0.672 (0.971) C:NA T:82%**	pCi/L	09/28/23 13:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.20 ± 0.669 (0.816) C:80% T:74%**	pCi/L	10/03/23 11:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**3.02 ± 1.34 (1.79)**	pCi/L	10/05/23 16:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-12-091523 **Lab ID: 50354090001** Collected: 09/15/23 10:15 Received: 09/16/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.494 ± 0.367 (0.459) C:NA T:94%**	pCi/L	10/02/23 13:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.902 ± 0.389 (0.611) C:78% T:86%**	pCi/L	10/03/23 12:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.40 ± 0.756 (1.07)**	pCi/L	10/05/23 16:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-12B-091523 **Lab ID: 50354090002** Collected: 09/15/23 11:00 Received: 09/16/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.507 ± 0.510 (0.804) C:NA T:88%**	pCi/L	10/02/23 13:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.176 ± 0.289 (0.628) C:81% T:86%**	pCi/L	10/03/23 12:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.683 ± 0.799 (1.43)**	pCi/L	10/05/23 16:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-03-091523 **Lab ID: 50354090003** Collected: 09/15/23 12:10 Received: 09/16/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0587 ± 0.474 (0.977) C:NA T:86%**	pCi/L	10/02/23 13:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.894 ± 0.447 (0.772) C:80% T:79%**	pCi/L	10/03/23 12:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.894 ± 0.921 (1.75)**	pCi/L	10/05/23 16:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-03B-091523 **Lab ID: 50354090004** Collected: 09/15/23 14:25 Received: 09/16/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.584 ± 0.409 (0.493) C:NA T:87%**	pCi/L	10/02/23 13:48	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.744 ± 0.490 (0.953) C:76% T:84%**	pCi/L	10/03/23 12:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.33 ± 0.899 (1.45)**	pCi/L	10/05/23 16:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-51-091823 **Lab ID: 50354176001** Collected: 09/18/23 14:15 Received: 09/19/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.523 ± 0.415 (0.540) C:NA T:86%**	pCi/L	10/05/23 12:44	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.58 ± 0.598 (0.914) C:76% T:73%**	pCi/L	10/04/23 12:16	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.10 ± 1.01 (1.45)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-51B-091923 **Lab ID: 50354275001** Collected: 09/19/23 11:05 Received: 09/20/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.91 ± 0.795 (0.709) C:NA T:82%**	pCi/L	10/05/23 13:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.43 ± 0.765 (1.04) C:73% T:81%**	pCi/L	10/04/23 12:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**4.34 ± 1.56 (1.75)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-08-091923 **Lab ID: 50354275002** Collected: 09/19/23 12:40 Received: 09/20/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.523 ± 0.366 (0.442) C:NA T:95%**	pCi/L	10/05/23 13:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.17 ± 0.598 (1.07) C:73% T:76%**	pCi/L	10/04/23 15:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.69 ± 0.964 (1.51)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-08B-091923 **Lab ID: 50354275003** Collected: 09/19/23 13:55 Received: 09/20/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.970 ± 0.593 (0.728) C:NA T:83%**	pCi/L	10/05/23 13:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.994 ± 0.564 (1.05) C:75% T:82%**	pCi/L	10/04/23 15:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.96 ± 1.16 (1.78)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: FD-03-091923 **Lab ID: 50354275004** Collected: 09/19/23 12:00 Received: 09/20/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.63 ± 0.726 (0.726) C:NA T:87%**	pCi/L	10/05/23 13:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.07 ± 0.667 (0.893) C:78% T:78%**	pCi/L	10/04/23 15:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**3.70 ± 1.39 (1.62)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: FB-04-091923 **Lab ID: 50354275005** Collected: 09/19/23 14:10 Received: 09/20/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.175 ± 0.413 (0.765) C:NA T:90%**	pCi/L	10/05/23 13:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.359 ± 0.537 (1.16) C:78% T:71%**	pCi/L	10/04/23 15:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.534 ± 0.950 (1.93)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-60-091923 **Lab ID: 50354275006** Collected: 09/19/23 11:05 Received: 09/20/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.374 ± 0.459 (0.748) C:NA T:81%**	pCi/L	10/05/23 13:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.674 ± 0.521 (1.04) C:78% T:72%**	pCi/L	10/04/23 15:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.05 ± 0.980 (1.79)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-60B-091923 **Lab ID: 50354275007** Collected: 09/19/23 12:20 Received: 09/20/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**2.23 ± 0.895 (0.774) C:NA T:76%**	pCi/L	10/05/23 13:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**2.24 ± 0.697 (0.925) C:77% T:84%**	pCi/L	10/04/23 15:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**4.47 ± 1.59 (1.70)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-59-091923 **Lab ID: 50354275008** Collected: 09/19/23 13:20 Received: 09/20/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.791 ± 0.593 (0.848) C:NA T:89%**	pCi/L	10/05/23 13:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.636 ± 0.513 (1.03) C:79% T:82%**	pCi/L	10/04/23 15:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.43 ± 1.11 (1.88)**	pCi/L	10/06/23 17:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-16R-092023 **Lab ID: 50354380001** Collected: 09/20/23 10:45 Received: 09/21/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.197 ± 0.274 (0.458) C:NA T:92%**	pCi/L	10/04/23 12:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.594 ± 0.379 (0.707) C:84% T:78%**	pCi/L	10/03/23 11:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.791 ± 0.653 (1.17)**	pCi/L	10/09/23 12:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-16R-092023 MS **Lab ID: 50354380002** Collected: 09/20/23 10:45 Received: 09/21/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**103.18 %REC ± NA (NA) C:NA T:NA**	pCi/L	10/04/23 12:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**79.18 %REC ± NA (NA) C:NA T:NA**	pCi/L	10/03/23 11:42	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-16R-092023 MSD **Lab ID: 50354380003** Collected: 09/20/23 10:45 Received: 09/21/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**93.26 %REC 10.10RPD ± NA (NA) C:NA T:NA**	pCi/L	10/04/23 12:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**89.63 %REC 12.38RPD ± NA (NA) C:NA T:NA**	pCi/L	10/03/23 11:43	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-16BR-092023 **Lab ID: 50354380004** Collected: 09/20/23 12:10 Received: 09/21/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.242 ± 0.503 (0.907) C:NA T:94%**	pCi/L	10/04/23 12:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.17 ± 0.548 (0.949) C:77% T:80%**	pCi/L	10/03/23 11:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.41 ± 1.05 (1.86)**	pCi/L	10/09/23 12:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-59B-092023 **Lab ID: 50354380005** Collected: 09/20/23 11:45 Received: 09/21/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.667 ± 0.524 (0.728) C:NA T:86%**	pCi/L	10/04/23 12:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.65 ± 0.621 (0.961) C:77% T:82%**	pCi/L	10/03/23 15:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.32 ± 1.15 (1.69)**	pCi/L	10/09/23 12:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-17-092023 **Lab ID: 50354380006** Collected: 09/20/23 13:10 Received: 09/21/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.552 ± 0.637 (1.04) C:NA T:86%**	pCi/L	10/04/23 12:58	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.375 ± 0.368 (0.751) C:73% T:84%**	pCi/L	10/03/23 15:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.927 ± 1.01 (1.79)**	pCi/L	10/09/23 12:08	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-09-092123 **Lab ID: 50354472001** Collected: 09/21/23 10:55 Received: 09/22/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.432 ± 0.633 (1.08) C:NA T:86%**	pCi/L	10/06/23 13:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.543 ± 0.343 (0.631) C:81% T:85%**	pCi/L	10/05/23 15:53	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.975 ± 0.976 (1.71)**	pCi/L	10/10/23 15:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-09B-092123 **Lab ID: 50354472002** Collected: 09/21/23 12:05 Received: 09/22/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.304 ± 0.492 (0.856) C:NA T:86%**	pCi/L	10/06/23 13:42	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.12 ± 0.431 (0.627) C:83% T:84%**	pCi/L	10/05/23 15:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.42 ± 0.923 (1.48)**	pCi/L	10/10/23 15:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-18-092123 **Lab ID: 50354472003** Collected: 09/21/23 13:30 Received: 09/22/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.181 ± 0.428 (0.792) C:NA T:92%**	pCi/L	10/06/23 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.816 ± 0.545 (1.06) C:77% T:78%**	pCi/L	10/05/23 15:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.997 ± 0.973 (1.85)**	pCi/L	10/10/23 15:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: FB-03-092123 **Lab ID: 50354472004** Collected: 09/21/23 10:55 Received: 09/22/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0558 ± 0.255 (0.518) C:NA T:92%**	pCi/L	10/06/23 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.558 ± 0.452 (0.903) C:75% T:87%**	pCi/L	10/05/23 15:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.614 ± 0.707 (1.42)**	pCi/L	10/10/23 15:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: FD-04-092123 **Lab ID: 50354472005** Collected: 09/21/23 12:00 Received: 09/22/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.693 ± 0.550 (0.746) C:NA T:88%**	pCi/L	10/06/23 13:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.11 ± 0.507 (0.866) C:78% T:88%**	pCi/L	10/05/23 15:50	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.80 ± 1.06 (1.61)**	pCi/L	10/10/23 15:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-18B-092223 **Lab ID: 50354589001** Collected: 09/22/23 10:40 Received: 09/23/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.15 ± 0.695 (0.910) C:NA T:85%**	pCi/L	10/09/23 12:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.936 ± 0.435 (0.710) C:76% T:87%**	pCi/L	10/06/23 14:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.09 ± 1.13 (1.62)**	pCi/L	10/09/23 16:03	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-56-092223 **Lab ID: 50354589002** Collected: 09/22/23 12:00 Received: 09/23/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.271 (0.551) C:NA T:90%**	pCi/L	10/09/23 12:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.539 ± 0.401 (0.763) C:75% T:87%**	pCi/L	10/06/23 14:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.539 ± 0.672 (1.31)**	pCi/L	10/09/23 16:03	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: FD-05-092223 **Lab ID: 50354589003** Collected: 09/22/23 12:00 Received: 09/23/23 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.406 ± 0.380 (0.538) C:NA T:97%**	pCi/L	10/09/23 12:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.783 ± 0.461 (0.837) C:76% T:82%**	pCi/L	10/06/23 14:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.19 ± 0.841 (1.38)**	pCi/L	10/09/23 16:03	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-54-092523 **Lab ID: 50354670001** Collected: 09/25/23 11:05 Received: 09/26/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0615 ± 0.497 (0.976) C:NA T:93%**	pCi/L	10/10/23 14:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**-0.0597 ± 0.444 (1.05) C:71% T:77%**	pCi/L	10/11/23 14:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0615 ± 0.941 (2.03)**	pCi/L	10/18/23 12:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-54B-092523 **Lab ID: 50354670002** Collected: 09/25/23 12:45 Received: 09/26/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.951 ± 0.634 (0.787) C:NA T:82%**	pCi/L	10/10/23 14:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.64 ± 0.618 (0.901) C:72% T:70%**	pCi/L	10/16/23 12:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.59 ± 1.25 (1.69)**	pCi/L	10/18/23 12:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: FB-05-092523 **Lab ID: 50354670003** Collected: 09/25/23 13:20 Received: 09/26/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.169 ± 0.332 (0.606) C:NA T:91%**	pCi/L	10/10/23 14:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.218 ± 0.433 (0.953) C:76% T:84%**	pCi/L	10/11/23 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.387 ± 0.765 (1.56)**	pCi/L	10/18/23 12:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-56B-092523 **Lab ID: 50354670004** Collected: 09/25/23 10:35 Received: 09/26/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.36 ± 0.682 (0.743) C:NA T:83%**	pCi/L	10/10/23 14:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.07 ± 0.478 (0.778) C:82% T:73%**	pCi/L	10/11/23 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.43 ± 1.16 (1.52)**	pCi/L	10/18/23 12:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-52-092523 **Lab ID: 50354670005** Collected: 09/25/23 11:40 Received: 09/26/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.636 ± 0.635 (1.01) C:NA T:92%**	pCi/L	10/10/23 14:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.454 ± 0.403 (0.816) C:79% T:82%**	pCi/L	10/11/23 14:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.09 ± 1.04 (1.83)**	pCi/L	10/18/23 12:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-52B-092523 **Lab ID: 50354670006** Collected: 09/25/23 13:05 Received: 09/26/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.266 ± 0.611 (1.11) C:NA T:85%**	pCi/L	10/10/23 14:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.770 ± 0.420 (0.743) C:81% T:78%**	pCi/L	10/11/23 14:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.04 ± 1.03 (1.85)**	pCi/L	10/18/23 12:12	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-53-092823 **Lab ID: 50355024001** Collected: 09/28/23 11:15 Received: 09/29/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0550 ± 0.358 (0.721) C:NA T:98%**	pCi/L	10/12/23 13:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0292 ± 0.344 (0.797) C:79% T:82%**	pCi/L	10/12/23 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0842 ± 0.702 (1.52)**	pCi/L	10/17/23 08:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-53B-092823 **Lab ID: 50355024002** Collected: 09/28/23 12:05 Received: 09/29/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.724 ± 0.632 (0.957) C:NA T:88%**	pCi/L	10/12/23 13:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.725 ± 0.445 (0.824) C:78% T:78%**	pCi/L	10/12/23 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.45 ± 1.08 (1.78)**	pCi/L	10/17/23 08:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-55R-092923 **Lab ID: 50355128001** Collected: 09/29/23 11:20 Received: 09/30/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.147 ± 0.538 (1.16) C:NA T:72%**	pCi/L	10/16/23 13:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.641 ± 0.523 (1.03) C:70% T:65%**	pCi/L	10/16/23 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.641 ± 1.06 (2.19)**	pCi/L	10/18/23 11:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-55B-092923 **Lab ID: 50355128002** Collected: 09/29/23 12:50 Received: 09/30/23 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.311 ± 0.484 (0.837) C:NA T:67%**	pCi/L	10/16/23 13:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.12 ± 0.563 (0.967) C:78% T:65%**	pCi/L	10/16/23 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.43 ± 1.05 (1.80)**	pCi/L	10/18/23 11:58	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-17B-100223 **Lab ID: 50355216001** Collected: 10/02/23 11:05 Received: 10/03/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.852 ± 0.624 (0.859) C:NA T:84%**	pCi/L	10/16/23 12:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.850 ± 0.449 (0.787) C:79% T:75%**	pCi/L	10/16/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.70 ± 1.07 (1.65)**	pCi/L	10/18/23 16:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-68-100223 **Lab ID: 50355216002** Collected: 10/02/23 13:05 Received: 10/03/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.720 ± 0.527 (0.726) C:NA T:91%**	pCi/L	10/16/23 12:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0892 ± 0.356 (0.807) C:84% T:77%**	pCi/L	10/16/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.809 ± 0.883 (1.53)**	pCi/L	10/18/23 16:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: GAMW-68B-100223 **Lab ID: 50355216003** Collected: 10/02/23 14:35 Received: 10/03/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**1.03 ± 0.711 (1.01) C:NA T:86%**	pCi/L	10/16/23 12:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.876 ± 0.450 (0.781) C:80% T:80%**	pCi/L	10/16/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.91 ± 1.16 (1.79)**	pCi/L	10/18/23 16:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: FD-06-100223 **Lab ID: 50355216004** Collected: 10/02/23 12:00 Received: 10/03/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.790 ± 0.638 (0.928) C:NA T:85%**	pCi/L	10/16/23 12:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.183 ± 0.345 (0.758) C:79% T:81%**	pCi/L	10/16/23 15:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.973 ± 0.983 (1.69)**	pCi/L	10/18/23 16:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

Sample: FB-06-100223 **Lab ID: 50355216005** Collected: 10/02/23 14:00 Received: 10/03/23 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0657 ± 0.561 (1.09) C:NA T:85%**	pCi/L	10/16/23 12:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0828 ± 0.326 (0.743) C:83% T:76%**	pCi/L	10/16/23 15:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.149 ± 0.887 (1.83)**	pCi/L	10/18/23 16:39	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 617990
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354472001, 50354472002, 50354472003, 50354472004, 50354472005

METHOD BLANK: 3010029 Matrix: Water
Associated Lab Samples: 50354472001, 50354472002, 50354472003, 50354472004, 50354472005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.537 ± 0.339 (0.624) C:74% T:86%	pCi/L	10/05/23 12:32	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 616403
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354018001, 50354018002, 50354018003, 50354018004, 50354018005, 50354018006

METHOD BLANK: 3001860 Matrix: Water
Associated Lab Samples: 50354018001, 50354018002, 50354018003, 50354018004, 50354018005, 50354018006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.157 ± 0.272 (0.485) C:NA T:83%	pCi/L	09/28/23 12:48	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 619924
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355128001, 50355128002

METHOD BLANK: 3020349
Matrix: Water
Associated Lab Samples: 50355128001, 50355128002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.970 ± 0.513 (0.899) C:77% T:68%	pCi/L	10/16/23 12:11	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 618303
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354589001, 50354589002, 50354589003

METHOD BLANK: 3011676 Matrix: Water
Associated Lab Samples: 50354589001, 50354589002, 50354589003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.144 ± 0.298 (0.659) C:83% T:83%	pCi/L	10/06/23 14:56	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 618302
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354589001, 50354589002, 50354589003

METHOD BLANK: 3011675 Matrix: Water
Associated Lab Samples: 50354589001, 50354589002, 50354589003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.134 ± 0.291 (0.538) C:NA T:93%	pCi/L	10/09/23 12:12	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 617989
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354472001, 50354472002, 50354472003, 50354472004, 50354472005

METHOD BLANK: 3010028 Matrix: Water
Associated Lab Samples: 50354472001, 50354472002, 50354472003, 50354472004, 50354472005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0461 ± 0.239 (0.553) C:NA T:98%	pCi/L	10/06/23 13:28	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 617970
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354380001, 50354380002, 50354380003, 50354380004, 50354380005, 50354380006

METHOD BLANK: 3009992 Matrix: Water
Associated Lab Samples: 50354380001, 50354380002, 50354380003, 50354380004, 50354380005, 50354380006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0896 ± 0.249 (0.587) C:NA T:92%	pCi/L	10/04/23 12:44	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 617971
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354380001, 50354380002, 50354380003, 50354380004, 50354380005, 50354380006

METHOD BLANK: 3009993 Matrix: Water
Associated Lab Samples: 50354380001, 50354380002, 50354380003, 50354380004, 50354380005, 50354380006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.253 ± 0.297 (0.621) C:84% T:84%	pCi/L	10/03/23 11:40	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 617724
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354176001, 50354275001, 50354275002, 50354275003, 50354275004, 50354275005, 50354275006, 50354275007, 50354275008

METHOD BLANK: 3008841 Matrix: Water
Associated Lab Samples: 50354176001, 50354275001, 50354275002, 50354275003, 50354275004, 50354275005, 50354275006, 50354275007, 50354275008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0912 ± 0.208 (0.491) C:NA T:80%	pCi/L	10/05/23 12:56	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 616724
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354090001, 50354090002, 50354090003, 50354090004

METHOD BLANK: 3003474 Matrix: Water
Associated Lab Samples: 50354090001, 50354090002, 50354090003, 50354090004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.796 ± 0.476 (0.868) C:75% T:67%	pCi/L	10/03/23 12:44	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 619922
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355128001, 50355128002

METHOD BLANK: 3020345
Matrix: Water
Associated Lab Samples: 50355128001, 50355128002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0920 ± 0.255 (0.495) C:NA T:82%	pCi/L	10/16/23 13:03	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 616415
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50353853001, 50353853002

METHOD BLANK: 3001920 Matrix: Water
Associated Lab Samples: 50353853001, 50353853002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.467 ± 0.324 (0.612) C:72% T:89%	pCi/L	09/28/23 15:10	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 616414
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50353853001, 50353853002

METHOD BLANK: 3001913 Matrix: Water
Associated Lab Samples: 50353853001, 50353853002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0486 ± 0.222 (0.358) C:NA T:94%	pCi/L	09/28/23 14:33	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 620289
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355216001, 50355216002, 50355216003, 50355216004, 50355216005

METHOD BLANK: 3022383 Matrix: Water
Associated Lab Samples: 50355216001, 50355216002, 50355216003, 50355216004, 50355216005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.942 ± 0.346 (0.423) C:82% T:84%	pCi/L	10/16/23 15:28	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 618990
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354670001, 50354670002, 50354670003, 50354670004, 50354670005, 50354670006

METHOD BLANK: 3015508 Matrix: Water
Associated Lab Samples: 50354670001, 50354670002, 50354670003, 50354670004, 50354670005, 50354670006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.169 ± 0.301 (0.657) C:85% T:82%	pCi/L	10/11/23 11:13	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 620288
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355216001, 50355216002, 50355216003, 50355216004, 50355216005

METHOD BLANK: 3022382 Matrix: Water
Associated Lab Samples: 50355216001, 50355216002, 50355216003, 50355216004, 50355216005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.223 (0.454) C:NA T:85%	pCi/L	10/16/23 12:14	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 618989
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354670001, 50354670002, 50354670003, 50354670004, 50354670005, 50354670006

METHOD BLANK: 3015504 Matrix: Water
Associated Lab Samples: 50354670001, 50354670002, 50354670003, 50354670004, 50354670005, 50354670006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.458 ± 0.390 (0.548) C:NA T:81%	pCi/L	10/10/23 14:30	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 617725
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354176001, 50354275001, 50354275002, 50354275003, 50354275004, 50354275005, 50354275006, 50354275007, 50354275008

METHOD BLANK: 3008842 Matrix: Water
Associated Lab Samples: 50354176001, 50354275001, 50354275002, 50354275003, 50354275004, 50354275005, 50354275006, 50354275007, 50354275008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.256 ± 0.307 (0.646) C:74% T:83%	pCi/L	10/04/23 12:14	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 619597
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355024001, 50355024002

METHOD BLANK: 3018593
Matrix: Water
Associated Lab Samples: 50355024001, 50355024002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.576 ± 0.368 (0.685) C:86% T:83%	pCi/L	10/12/23 14:30	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 619594
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355024001, 50355024002

METHOD BLANK: 3018589
Matrix: Water
Associated Lab Samples: 50355024001, 50355024002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.378 ± 0.324 (0.439) C:NA T:93%	pCi/L	10/12/23 13:07	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 616723
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354090001, 50354090002, 50354090003, 50354090004

METHOD BLANK: 3003473 Matrix: Water
Associated Lab Samples: 50354090001, 50354090002, 50354090003, 50354090004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.203 ± 0.265 (0.437) C:NA T:85%	pCi/L	10/02/23 13:32	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Assessment
Pace Project No.: 50353853

QC Batch: 616404
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50354018001, 50354018002, 50354018003, 50354018004, 50354018005, 50354018006

METHOD BLANK: 3001867 Matrix: Water
Associated Lab Samples: 50354018001, 50354018002, 50354018003, 50354018004, 50354018005, 50354018006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.524 ± 0.419 (0.827) C:77% T:73%	pCi/L	10/03/23 11:35	

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QUALIFIERS

Project: RMSGS Assessment
Pace Project No.: 50353853

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50353853001	**GAMW-01-091323**	EPA 903.1	616414		
50353853002	**GAMW-01B-091323**	EPA 903.1	616414		
50354018001	**GAMW-14-091423**	EPA 903.1	616403		
50354018002	**GAMW-14B-091423**	EPA 903.1	616403		
50354018003	**GAMW-13-091423**	EPA 903.1	616403		
50354018004	**GAMW-13-091423 MS**	EPA 903.1	616403		
50354018005	**GAMW-13-091423 MSD**	EPA 903.1	616403		
50354018006	**GAMW-13B-091423**	EPA 903.1	616403		
50354090001	**GAMW-12-091523**	EPA 903.1	616723		
50354090002	**GAMW-12B-091523**	EPA 903.1	616723		
50354090003	**GAMW-03-091523**	EPA 903.1	616723		
50354090004	**GAMW-03B-091523**	EPA 903.1	616723		
50354176001	**GAMW-51-091823**	EPA 903.1	617724		
50354275001	**GAMW-51B-091923**	EPA 903.1	617724		
50354275002	**GAMW-08-091923**	EPA 903.1	617724		
50354275003	**GAMW-08B-091923**	EPA 903.1	617724		
50354275004	**FD-03-091923**	EPA 903.1	617724		
50354275005	**FB-04-091923**	EPA 903.1	617724		
50354275006	**GAMW-60-091923**	EPA 903.1	617724		
50354275007	**GAMW-60B-091923**	EPA 903.1	617724		
50354275008	**GAMW-59-091923**	EPA 903.1	617724		
50354380001	**GAMW-16R-092023**	EPA 903.1	617970		
50354380002	**GAMW-16R-092023 MS**	EPA 903.1	617970		
50354380003	**GAMW-16R-092023 MSD**	EPA 903.1	617970		
50354380004	**GAMW-16BR-092023**	EPA 903.1	617970		
50354380005	**GAMW-59B-092023**	EPA 903.1	617970		
50354380006	**GAMW-17-092023**	EPA 903.1	617970		
50354472001	**GAMW-09-092123**	EPA 903.1	617989		
50354472002	**GAMW-09B-092123**	EPA 903.1	617989		
50354472003	**GAMW-18-092123**	EPA 903.1	617989		
50354472004	**FB-03-092123**	EPA 903.1	617989		
50354472005	**FD-04-092123**	EPA 903.1	617989		
50354589001	**GAMW-18B-092223**	EPA 903.1	618302		
50354589002	**GAMW-56-092223**	EPA 903.1	618302		
50354589003	**FD-05-092223**	EPA 903.1	618302		
50354670001	**GAMW-54-092523**	EPA 903.1	618989		
50354670002	**GAMW-54B-092523**	EPA 903.1	618989		
50354670003	**FB-05-092523**	EPA 903.1	618989		
50354670004	**GAMW-56B-092523**	EPA 903.1	618989		
50354670005	**GAMW-52-092523**	EPA 903.1	618989		
50354670006	**GAMW-52B-092523**	EPA 903.1	618989		
50355024001	**GAMW-53-092823**	EPA 903.1	619594		
50355024002	**GAMW-53B-092823**	EPA 903.1	619594		
50355128001	**GAMW-55R-092923**	EPA 903.1	619922		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355128002	**GAMW-55B-092923**	EPA 903.1	619922		
50355216001	**GAMW-17B-100223**	EPA 903.1	620288		
50355216002	**GAMW-68-100223**	EPA 903.1	620288		
50355216003	**GAMW-68B-100223**	EPA 903.1	620288		
50355216004	**FD-06-100223**	EPA 903.1	620288		
50355216005	**FB-06-100223**	EPA 903.1	620288		
50353853001	**GAMW-01-091323**	EPA 904.0	616415		
50353853002	**GAMW-01B-091323**	EPA 904.0	616415		
50354018001	**GAMW-14-091423**	EPA 904.0	616404		
50354018002	**GAMW-14B-091423**	EPA 904.0	616404		
50354018003	**GAMW-13-091423**	EPA 904.0	616404		
50354018004	**GAMW-13-091423 MS**	EPA 904.0	616404		
50354018005	**GAMW-13-091423 MSD**	EPA 904.0	616404		
50354018006	**GAMW-13B-091423**	EPA 904.0	616404		
50354090001	**GAMW-12-091523**	EPA 904.0	616724		
50354090002	**GAMW-12B-091523**	EPA 904.0	616724		
50354090003	**GAMW-03-091523**	EPA 904.0	616724		
50354090004	**GAMW-03B-091523**	EPA 904.0	616724		
50354176001	**GAMW-51-091823**	EPA 904.0	617725		
50354275001	**GAMW-51B-091923**	EPA 904.0	617725		
50354275002	**GAMW-08-091923**	EPA 904.0	617725		
50354275003	**GAMW-08B-091923**	EPA 904.0	617725		
50354275004	**FD-03-091923**	EPA 904.0	617725		
50354275005	**FB-04-091923**	EPA 904.0	617725		
50354275006	**GAMW-60-091923**	EPA 904.0	617725		
50354275007	**GAMW-60B-091923**	EPA 904.0	617725		
50354275008	**GAMW-59-091923**	EPA 904.0	617725		
50354380001	**GAMW-16R-092023**	EPA 904.0	617971		
50354380002	**GAMW-16R-092023 MS**	EPA 904.0	617971		
50354380003	**GAMW-16R-092023 MSD**	EPA 904.0	617971		
50354380004	**GAMW-16BR-092023**	EPA 904.0	617971		
50354380005	**GAMW-59B-092023**	EPA 904.0	617971		
50354380006	**GAMW-17-092023**	EPA 904.0	617971		
50354472001	**GAMW-09-092123**	EPA 904.0	617990		
50354472002	**GAMW-09B-092123**	EPA 904.0	617990		
50354472003	**GAMW-18-092123**	EPA 904.0	617990		
50354472004	**FB-03-092123**	EPA 904.0	617990		
50354472005	**FD-04-092123**	EPA 904.0	617990		
50354589001	**GAMW-18B-092223**	EPA 904.0	618303		
50354589002	**GAMW-56-092223**	EPA 904.0	618303		
50354589003	**FD-05-092223**	EPA 904.0	618303		
50354670001	**GAMW-54-092523**	EPA 904.0	618990		
50354670002	**GAMW-54B-092523**	EPA 904.0	618990		
50354670003	**FB-05-092523**	EPA 904.0	618990		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50354670004	**GAMW-56B-092523**	EPA 904.0	618990		
50354670005	**GAMW-52-092523**	EPA 904.0	618990		
50354670006	**GAMW-52B-092523**	EPA 904.0	618990		
50355024001	**GAMW-53-092823**	EPA 904.0	619597		
50355024002	**GAMW-53B-092823**	EPA 904.0	619597		
50355128001	**GAMW-55R-092923**	EPA 904.0	619924		
50355128002	**GAMW-55B-092923**	EPA 904.0	619924		
50355216001	**GAMW-17B-100223**	EPA 904.0	620289		
50355216002	**GAMW-68-100223**	EPA 904.0	620289		
50355216003	**GAMW-68B-100223**	EPA 904.0	620289		
50355216004	**FD-06-100223**	EPA 904.0	620289		
50355216005	**FB-06-100223**	EPA 904.0	620289		
50353853001	**GAMW-01-091323**	Total Radium Calculation	619040		
50353853002	**GAMW-01B-091323**	Total Radium Calculation	619040		
50354018001	**GAMW-14-091423**	Total Radium Calculation	620495		
50354018002	**GAMW-14B-091423**	Total Radium Calculation	620495		
50354018003	**GAMW-13-091423**	Total Radium Calculation	620495		
50354018006	**GAMW-13B-091423**	Total Radium Calculation	620495		
50354090001	**GAMW-12-091523**	Total Radium Calculation	620495		
50354090002	**GAMW-12B-091523**	Total Radium Calculation	620495		
50354090003	**GAMW-03-091523**	Total Radium Calculation	620495		
50354090004	**GAMW-03B-091523**	Total Radium Calculation	620495		
50354176001	**GAMW-51-091823**	Total Radium Calculation	620817		
50354275001	**GAMW-51B-091923**	Total Radium Calculation	620817		
50354275002	**GAMW-08-091923**	Total Radium Calculation	620817		
50354275003	**GAMW-08B-091923**	Total Radium Calculation	620817		
50354275004	**FD-03-091923**	Total Radium Calculation	620817		
50354275005	**FB-04-091923**	Total Radium Calculation	620817		
50354275006	**GAMW-60-091923**	Total Radium Calculation	620817		
50354275007	**GAMW-60B-091923**	Total Radium Calculation	620817		
50354275008	**GAMW-59-091923**	Total Radium Calculation	620817		
50354380001	**GAMW-16R-092023**	Total Radium Calculation	621046		
50354380004	**GAMW-16BR-092023**	Total Radium Calculation	621046		
50354380005	**GAMW-59B-092023**	Total Radium Calculation	621046		
50354380006	**GAMW-17-092023**	Total Radium Calculation	621046		
50354472001	**GAMW-09-092123**	Total Radium Calculation	621415		
50354472002	**GAMW-09B-092123**	Total Radium Calculation	621415		
50354472003	**GAMW-18-092123**	Total Radium Calculation	621415		
50354472004	**FB-03-092123**	Total Radium Calculation	621415		
50354472005	**FD-04-092123**	Total Radium Calculation	621415		
50354589001	**GAMW-18B-092223**	Total Radium Calculation	621173		
50354589002	**GAMW-56-092223**	Total Radium Calculation	621173		
50354589003	**FD-05-092223**	Total Radium Calculation	621173		
50354670001	**GAMW-54-092523**	Total Radium Calculation	623216		

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Assessment
Pace Project No.: 50353853

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50354670002	**GAMW-54B-092523**	Total Radium Calculation	623216		
50354670003	**FB-05-092523**	Total Radium Calculation	623216		
50354670004	**GAMW-56B-092523**	Total Radium Calculation	623216		
50354670005	**GAMW-52-092523**	Total Radium Calculation	623216		
50354670006	**GAMW-52B-092523**	Total Radium Calculation	623216		
50355024001	**GAMW-53-092823**	Total Radium Calculation	622754		
50355024002	**GAMW-53B-092823**	Total Radium Calculation	622754		
50355128001	**GAMW-55R-092923**	Total Radium Calculation	623210		
50355128002	**GAMW-55B-092923**	Total Radium Calculation	623210		
50355216001	**GAMW-17B-100223**	Total Radium Calculation	623324		
50355216002	**GAMW-68-100223**	Total Radium Calculation	623324		
50355216003	**GAMW-68B-100223**	Total Radium Calculation	623324		
50355216004	**FD-06-100223**	Total Radium Calculation	623324		
50355216005	**FB-06-100223**	Total Radium Calculation	623324		

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WO# : 50353853

50353853

st Document
ds must be completed accurately.

Page : Of

Section A — Required Client Information:

Company:	NiSource_WSP
Address:	801 E. 86th Avenue
	Merrillville, IN 46410
Email:	Thomas.Haskins@wsp.com
Phone:	(603)782-2433 Fax:
Requested Due Date:	10 day TAT

Section B — Required Project Information:

Report To:	Tom Haskins
Copy To:	Gabriel Dixon, Danielle Sylvia
	Sarah Gilles
Purchase Order #:	PO33924
Project Name:	RMSGS Assessment
Project #:	31404789.011

Invoice Information:

Attention:	Jeff Loewe U126177
Company Name:	NiSource
Address:	
Pace Quote:	
Pace Project Manager:	tina.sayer@pacelabs.com,
Pace Profile #:	9045-3

Regulatory Agency:

State / Location: IN

Requested Analysis Filtered (Y/N)

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Radium 226+228(sum)	Residual Chlorine (Y/N)
1	GAMW-01 - 091323	WT	G			9/13/23	1330		2			2						X	X	
2	GAMW-01B - 091323	WT	G			9/13/23	1430		2			2						X	X	
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	FE / WSP	9/13/23	1630	FE Daniel Pearson / Pace	9/14/23	0915	1.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/13/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 09/14/23 10:40

1. Courier: ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. Custody Seal on Cooler/Box Present: ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D (E) F G H

4. Cooler Temperature(s): 1.1/1.1°C | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Plastic/ZPLC

6. Ice Type: ☑ Wet ☐ Blue ☐ None

7. If temp. is over 6°C or under 0°C, was the PM notified?: ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2												WT				
2																2												WT				
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50354018

50354018

cument
be completed accurately.

Page : Of

Section A
Required Client Information:
Company: NiSource_WSP
Address: 801 E. 86th Avenue
Merrillville, IN 46410
Email: Thomas.Haskins@wsp.com
Phone: (603)782-2433 Fax
Requested Due Date: 10 day TAT

Section B
Required Project Information:
Report To: Tom Haskins
Copy To: Gabriel Dixon, Danielle Sylvia
Sarah Gilles
Purchase Order #: PO33924
Project Name: RMSGS Assessment
Project #: 31404789.011

Invoice Information:
Attention: Jeff Loewe U126177
Company Name: NiSource
Address:
Pace Quote:
Pace Project Manager: tina.sayer@pacelabs.com,
Pace Profile #: 9045-3

Regulatory Agency
State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Radium 226+228(sum)	Residual Chlorine (Y/N)
1	GAMW-14-091423	WT	G			9/14/23	1005		2			2							X	
2	GAMW-14B-091423	WT	G			9/14/23	1105		2			2							X	
3	GAMW-13-091423	WT	G			9/14/23	1210		2			2							X	
4	GAMW-13B-091423	WT	G			9/14/23	1325		2			2							X	
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS

ADDITIONAL COMMENTS
*Sub RadChem to Pace® PA

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
WSP	9/14/23	1600	FedEx		
FedEx	9/15/23	905		9/15/23	905

SAMPLE CONDITIONS

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
3.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: R. GUZMAN
SIGNATURE of SAMPLER:
DATE Signed 9/14/23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/15/23 1110 TW

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 3.5/3.4 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic/ZPLC
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Circle: (HNO3 (<2)) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS: MS-02/MSD 02 for GAMW-13-091423 TW 9/15/23

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2													WT				
2																2																	
3																6																	
4																2																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50354090

50354090

Request Document

levant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource
Merrillville, IN 46410	Sarah Gilles	Address:
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:
Phone: (603)782-2433 Fax	Project Name: RMSGS Assessment	Pace Project Manager: tina.sayer@pacelabs.com
Requested Due Date: 10 day TAT	Project # 31404789.011	Pace Profile # 9045-3

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	GAMW-12-091523	WT	G			9/15/23	1015		2			2							X		001
2	GAMW-12B-091523	WT	G			9/15/23	1100		2			2							X		002
3	GAMW-03-091523	WT	G			9/15/23	1210		2			2							X		003
4	GAMW-03B-091523	WT	G			9/15/23	1425		2			2							X		004
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	9/15/23		FedEx						
	FedEx	9-16-23	0905	Mail Stuffed / PACE	9-16-23	0905	0.8	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/15/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 09·16·2023 1100

1. **Courier:** [X] FED EX [ ] UPS [ ] CLIENT [ ] PACE [ ] NOW/JETT [ ] OTHER _____

2. **Custody Seal on Cooler/Box Present:** [X] Yes [ ] No

(If yes)Seals Intact: [X] Yes [ ] No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C (D) E F G H

4. **Cooler Temperature(s):** 0.8 / 0.8 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** [X] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other _____

6. **Ice Type:** [X] Wet [ ] Blue [ ] None

7. **If temp. is over 6°C or under 0°C, was the PM notified?** [ ] Yes [ ] No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X
Short Hold Time Analysis (48 hours or less)? Analysis:		X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		X
Custody Signatures Present?	X	
Containers Intact?	X	
Sample Label (IDs/Dates/Times) Match COC? Except TCs, which only require sample ID	X	
Extra labels on Terracore Vials? (soils only)		X

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?. **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	X DMP 9/16/23		✓
Circle: (HNO3 (<2)) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Headspace Wisconsin Sulfide?			X
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Trip Blank Present?		X	
Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix
1																2											WT
2																											
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
✓			

DMP 9/16/23

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields m

WO# : 50354176

50354176

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)
1	BMW-57-091823	WT	G			9/18/23	1415		2			2						X	
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	9/19/23	1630	Fedex						
	Fedex	9/19/23	0905		9/19/23	0905	0.8	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/18/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/19/23 1100 LR

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E (F) G H

4. **Cooler Temperature(s):** 0.9/0.8 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X
Short Hold Time Analysis (48 hours or less)? Analysis:		X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		X
Custody Signatures Present?	X	
Containers Intact?:	X	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X	
Extra labels on Terracore Vials? (soils only)		X

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: ~~HNO3 (<2)~~ H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form LR 9/19	X		
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Headspace Wisconsin Sulfide?			X
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Trip Blank Present?		X	
Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) / SBS / DI / R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2												WT				
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50354275

50354275

cal Request Document

All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency

State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	GAMW-51B-091923	WT	G			9/19/23	1105		2			2							X		001
2	GAMW-08-091923	WT	G			9/19/23	1240		2			2							X		002
3	GAMW-08B-091923	WT	G			9/19/23	1355		2			2							X		003
4	FD-03-091923	WT	G			9/19/23	1200		2			2							X		004
5	FB-04-091923	WT	G			9/19/23	1410		2			2							X		005
6	GAMW-60-091923	WT	G			9/19/23	1105		2			2							X		006
7	GAMW-60B-091923	WT	G			9/19/23	1220		2			2							X		007
8	GAMW-59-091923	WT	G			9/19/23	1320		2			2							X		008
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	9/19/23	1630	Fedex						
	Fedex	9/20/23	0920		9/20/23	0920	See SCR	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 9/19/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/20/23 0950 LR

1. **Courier:** [X] FED EX [ ] UPS [ ] CLIENT [ ] PACE [ ] NOW/JETT [ ] OTHER _____

2. **Custody Seal on Cooler/Box Present:** [X] Yes [ ] No

(If yes)Seals Intact: [X] Yes [ ] No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E (F) G H

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.4/1.3	1.5/1.4		

5. **Packing Material:** [X] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other _____

6. **Ice Type:** [X] Wet [ ] Blue [ ] None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** [ ] Yes [ ] No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			X
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			MeOH (only)																										Red	Yellow	Green	Black
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																2											WT				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50354380

50354380

CHAIN-OF

The Chain-of-C ... accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:	Invoice Information:
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource
Merrillville, IN 46410	Sarah Gilles	Address:
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:
Phone: (603)782-2433 Fax	Project Name: RMSGS Assessment	Pace Project Manager: tina.sayer@pacelabs.com,
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3

Regulatory Agency	
State / Location	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	GRMW-16R-092023	WT	G			9/20/23	1045		2			2							X		MS-03/MSD-03 001/002/003
2	GRMW-16BR-092023	WT	G			9/20/23	1240		2			2							X		004
3	GRMW-59B-092023	WT	G			9/20/23	1145		2			2							X		005
4	GRMW-17-092023	WT	G			9/20/23	1310		2			2							X		006
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	WSP	9/20/23	1100	Fedex						
	Fedex	9/21/23	0920		9/21/23	0920	See SCR	Y	Y	Y

SAMPLER NAME AND SIGNATURE							
PRINT Name of SAMPLER:		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)		
SIGNATURE of SAMPLER:	DATE Signed: 9/20/23						

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/21/23 1015 LR

1. **Courier:** ☒FED EX ☐UPS ☐CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G (H)
4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.0/1.0	0.6/0.6		

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: (HNO3) (<2) (H2SO4 (<2)) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X LR 9/21		X
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix
1																6											WT
2																2											
3																↓											
4																											↓
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789-011 RG	Pace Profile #:	9045-3

Regulatory Agency:

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	GAMW-09-092123	WT	G			9/21/23	1055		2			2						X	X		001
2	GAMW-09B-092123	WT	G			9/21/23	1205		2			2						X	X		002
3	GAMW-18-092123	WT	G			9/21/23	1330		2			2						X	X		003
4	FB-03-092123	WT	G			9/21/23	1055		2			2						X	X		004
5	FD-04-092123	WT	G			9/21/23	1200		2			2						X	X		005
6																					
7																					
8																					
9																					
10																					
11																					
12																					

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP	9/21/23	1630	FedEx						
	FedEx	9-22-23	9:25		9-22-23	9:25	0.9 / 0.7	y	y	y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: 9/21/23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 9-22-23 11:30

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 0.4/0.9 | 0.7/0.7 | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	✓
Rush TAT Requested (4 days or less):		✓
Custody Signatures Present?	✓	
Containers Intact?:	✓	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓	
Extra labels on Terracore Vials? (soils only)		

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) RAD Any non-conformance to pH recommendations will be noted on the container count form		✓	
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Headspace Wisconsin Sulfide?			✓
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Trip Blank Present?		✓	
Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC								OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			MeOH (only)																									Red	Yellow	Green	Black
			SBS																												
			DI			VOA VIAL HS >6mm																							HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H		VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix				
1																2												WT				
2																																
3																																
4																																
5																																
6																X												X				
7																																
8																																
9																																
10																																
11																																
12																																

BC 9-22-23

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50354589

50354589

CHAIN-OF-CUSTODY / Analytical Request

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields n

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177	
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource	
	Merrillville, IN 46410		Sarah Gilles	Address:		Regulatory Agency
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:		
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,	State / Location
Requested Due Date:	10 day TAT	Project #:	314047B9.011	Pace Profile #:	9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	GRAMW-1BB-092223	WT	G			9/22/23	1040		2			2							X		001
2	GRAMW-56-092223	WT	G			9/22/23	1200		2			2							X		002
3	FD-05-092223	WT	G			9/22/23	1200		2			2							X		003
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Sub RadChem to Pace® PA	FE/WSP	9/22/23	1500	FE Daniel Pearson/Pace	9/23/23	0905	1.1	Y	N	Y
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. GUDMAN

SIGNATURE of SAMPLER: DATE Signed: 9/22/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 09/23/23 11:50

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No *

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E (F) G H

4. **Cooler Temperature(s):** 1.2°/1.1°C | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A ✓
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Custody Seals?:			✓

COMMENTS: * The cooler may have originally been rcvd custody sealed, but upon reciept, tape/seal was ripped off from an unknown cooler on the Fedex truck. DMP 9/23/23

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			MeOH (only)																										Red	Yellow	Green	Black
			SBS																													
			DI																										HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix				
1																2												WT				
2																↓												↓				
3																↓																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50354670

50354670

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:		
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177	
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource	
	Merrillville, IN 46410		Sarah Gilles	Address:		Regulatory Agency
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:		
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,	State / Location
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	GAMW-54-092523	WT	G			9/25/23	1105		2			2							X		001
2	GAMW-54B-092523	WT	G			9/25/23	1245		2			2							X			002
3	FB-05-092523	WT	G			9/25/23	1320		2			2							X			003
4	GAMW-56B-092523	WT	G			9/25/23	1035		2			2							X			004
5	GAMW-52-092523	WT	G			9/25/23	1140		2			2							X			005
6	GAMW-52B-092523	WT	G			9/25/23	1305		2			2							X			006
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
*Sub RadChem to Pace® PA	WSP	9/25/23	1600	FedEx	9.26.23	0915	
	FedEX	9.26.23	0915	Centera Webb	9.26.23	0915	
							2.5/25 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: R. Gilles

SIGNATURE of SAMPLER: DATE Signed: 9/25/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: CTW 9.26.23

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F (G) H

4. **Cooler Temperature(s):** 2.5/2.5 | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: ~~HNO3~~ (<2) ~~H2SO4~~ (≤2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form RC 9-26-23	✓		
Short Hold Time Analysis (48 hours or less)? **Analysis:** ~~NO3~~ RC 9-26-23	~~✓~~	✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less): RC 9-26-23	~~✓~~	✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide? RC 9-26-23		~~✓~~	✓
			Headspace in VOA Vials (>6mm):	Present	Absent	No VOA Vials Sent
Containers Intact?:	✓		See Containter Count form for details			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)		✓	Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on conta... that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																						2							✓			
2																						2							✓			
3																						2							✓			
4																						2							✓			
5																						2							✓			
6																						2							✓			
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request D

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields mu

WO# : 50355024

50355024

Section A – Required Client Information:		Section B – Required Project Information:		Section C – Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax:	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency: State / Location: IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)
1	GAMW-53 - 092823	WT	G			9/28/23	1115		2			2							X	
2	GAMW-53B - 092823	WT	G			9/28/23	1205		2			2							X	
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	WSP / Fedex	9/28/23	1630	Fedex						
	Fedex	9/29/23	0925		9/29/23	0925	2.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: 9/28/23

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/29/23 1135 LR

1. **Courier:** ☒FED EX ☐UPS ☐CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 2.0/2.0 | | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X LR 9/29		X
Short Hold Time Analysis (48 hours or less)? Analysis:						
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
			Headspace in VOA Vials (>6mm):	Present	Absent	No VOA Vials Sent
Containers Intact?:	X		See Containter Count form for details			X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

			MeOH (only)						AMBER GLASS							PLASTIC									OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			SBS																											Red	Yellow	Green	Black
COC Line Item	WGFU	WGKU BG1U	DI	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
			R																													
1																2												WT				
2																2												WT				
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50355128

50355128

Pace Analytical

Document

must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:		
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	Regulatory Agency
Address: 801 E. 86th Avenue	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource	
Merrillville, IN 46410	Sarah Gilles	Address:	
Email: Thomas.Haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)782-2433 Fax	Project Name: RMSGS Assessment	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+228(sum)	Residual Chlorine (Y/N)	
1	GRMW-55R-092923	WT	G			9/29/23	1120		2			2						X	X		001
2	GRMW-55B-092923	WT	G			9/29/23	1250		2			2						X	X		002
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*Sub RadChem to Pace® PA	FE WSP	9/29/23	1800	FE Daniel Pearson/Pace	9/30/23	09:15	0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: 9/29/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: DMP 09/30/23 11:10

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No

(If yes)Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F (G) H

4. **Cooler Temperature(s):** 0.8°C / 0.8°C

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			•
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				✓
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	✓		Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)		N/A	Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																22												WT				
2																2												WT				
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50355216

50355216

CHAIN-OF-CUSTODY / Analyti

The Chain-of-Custody is a LEGAL DOCUMENT.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	801 E. 86th Avenue	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrillville, IN 46410		Sarah Gilles	Address:	
Email:	Thomas.Haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)782-2433 Fax	Project Name:	RMSGS Assessment	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+228(sum)	Residual Chlorine (Y/N)
1	GAMW-17B-100223	WT	G			10/2/23	1105		2			2							X	
2	GAMW-6B-100223	WT	G			10/2/23	1305		2			2							X	
3	GAMW-66B-100223	WT	G			10/2/23	1435		2			2							X	
RA	~~GAMW~~ FD-06-100223	WT	G			10/2/23	1200		2			2							X	
5	FB-06-100223	WT	G			10/2/23	1440		2			2							X	
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
*Sub RadChem to Pace® PA	WSP	10/2/23	1700	fedex	10/2/23	1700	
	Fedex	10/3/23	0830	CR	10/31/23	0830	1.4 4 4 4

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 10/2/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1.4	4	4	4

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 10/3/23 0922 CAR

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 1.9/1.4 | 0.7/0.7 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER							
			MeOH (only)																												
			SBS																												
			DI																												
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2											WT				
2																2											WT				
3																2											WT				
4																2											WT				
5																2											WT				
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	~~40mL w/hexane wipe vial~~	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	~~Terracore Kit~~
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

October 26, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory between October 04, 2023 and October 12, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3127
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50355350001	**GAMW-46-100323**	Water	10/03/23 13:25	10/04/23 09:20
50355500001	**GAMW-46B-100423**	Water	10/04/23 10:45	10/05/23 09:20
50355500002	**GAMW-42-100423**	Water	10/04/23 12:20	10/05/23 09:20
50355500003	**GAMW-42B-100423**	Water	10/04/23 13:55	10/05/23 09:20
50355927001	**GAMW-42C-100923**	Water	10/09/23 11:55	10/10/23 09:25
50355927002	**GAMW-43-100923**	Water	10/09/23 13:10	10/10/23 09:25
50355927003	**GAMW-43B-100923**	Water	10/09/23 14:05	10/10/23 09:25
50355927004	**FD-07-100923**	Water	10/09/23 12:00	10/10/23 09:25
50356097001	**GAMW-44-101023**	Water	10/10/23 10:45	10/11/23 09:20
50356097002	**GAMW-44B-101023**	Water	10/10/23 11:45	10/11/23 09:20
50356097003	**GAMW-57-101023**	Water	10/10/23 13:10	10/11/23 09:20
50356097004	**FB-07-101023**	Water	10/10/23 14:00	10/11/23 09:20
50356256001	**GAMW-57B-101123**	Water	10/11/23 10:05	10/12/23 09:25
50356256002	**GAMW-58-101123**	Water	10/11/23 11:30	10/12/23 09:25
50356256003	**GAMW-58B-101123**	Water	10/11/23 12:30	10/12/23 09:25

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SAMPLE ANALYTE COUNT

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50355350001	**GAMW-46-100323**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355500001	**GAMW-46B-100423**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355500002	**GAMW-42-100423**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355500003	**GAMW-42B-100423**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	RJP	1	PASI-I
50355927001	**GAMW-42C-100923**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355927002	**GAMW-43-100923**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355927003	**GAMW-43B-100923**	EPA 9056	KBB	3	PASI-I

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(317)228-3100

SAMPLE ANALYTE COUNT

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50355927004	**FD-07-100923**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50356097001	**GAMW-44-101023**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50356097002	**GAMW-44B-101023**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50356097003	**GAMW-57-101023**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50356097004	**FB-07-101023**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	DMT	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50356256001	**GAMW-57B-101123**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I

REPORT OF LABORATORY ANALYSIS

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(317)228-3100

SAMPLE ANALYTE COUNT

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	MGM	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50356256002	**GAMW-58-101123**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	MGM	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I
50356256003	**GAMW-58B-101123**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	MGM	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	IRH	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355350001	**GAMW-46-100323**					
EPA 9056	Chloride	2.0	mg/L	0.25	10/14/23 05:41	
EPA 9056	Sulfate	28.4	mg/L	0.25	10/14/23 05:41	
EPA 6010	Boron	0.036J	mg/L	0.10	10/17/23 14:09	
EPA 6010	Calcium	28.2	mg/L	1.0	10/17/23 14:09	
EPA 6020	Antimony	0.00017J	mg/L	0.0010	10/06/23 04:52	
EPA 6020	Arsenic	0.00045J	mg/L	0.0010	10/06/23 04:52	
EPA 6020	Barium	0.0043	mg/L	0.0010	10/06/23 04:52	
EPA 6020	Chromium	0.00047J	mg/L	0.0020	10/06/23 04:52	
EPA 6020	Cobalt	0.000063J	mg/L	0.0010	10/06/23 04:52	
EPA 6020	Lead	0.000065J	mg/L	0.0010	10/06/23 04:52	
EPA 6020	Molybdenum	0.00065J	mg/L	0.0010	10/06/23 04:52	
SM 2540C	Total Dissolved Solids	96	mg/L	10.0	10/10/23 15:19	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	10/17/23 16:55	H3
50355500001	**GAMW-46B-100423**					
EPA 9056	Chloride	5.9	mg/L	0.25	10/16/23 16:41	
EPA 9056	Sulfate	53.2	mg/L	2.5	10/16/23 16:57	
EPA 6010	Boron	0.037J	mg/L	0.10	10/17/23 14:15	
EPA 6010	Calcium	53.2	mg/L	1.0	10/17/23 14:15	
EPA 6020	Arsenic	0.00061J	mg/L	0.0010	10/16/23 08:11	
EPA 6020	Barium	0.023	mg/L	0.0010	10/16/23 08:11	
EPA 6020	Chromium	0.00025J	mg/L	0.0020	10/16/23 08:11	
EPA 6020	Cobalt	0.000081J	mg/L	0.0010	10/16/23 08:11	
EPA 6020	Molybdenum	0.0023	mg/L	0.0010	10/16/23 08:11	
SM 2540C	Total Dissolved Solids	193	mg/L	10.0	10/11/23 15:41	
SM 4500-H+B	pH at 25 Degrees C	8.0	Std. Units	0.10	10/17/23 17:07	H3
50355500002	**GAMW-42-100423**					
EPA 9056	Chloride	10.3	mg/L	0.25	10/16/23 17:31	
EPA 9056	Fluoride	0.13	mg/L	0.050	10/16/23 17:31	
EPA 9056	Sulfate	57.1	mg/L	2.5	10/16/23 17:48	
EPA 6010	Boron	0.024J	mg/L	0.10	10/17/23 14:16	
EPA 6010	Calcium	61.7	mg/L	1.0	10/17/23 14:16	
EPA 6020	Arsenic	0.0012	mg/L	0.0010	10/16/23 08:15	
EPA 6020	Barium	0.022	mg/L	0.0010	10/16/23 08:15	
EPA 6020	Chromium	0.00078J	mg/L	0.0020	10/16/23 08:15	
EPA 6020	Cobalt	0.00012J	mg/L	0.0010	10/16/23 08:15	
EPA 6020	Molybdenum	0.0036	mg/L	0.0010	10/16/23 08:15	
SM 2540C	Total Dissolved Solids	253	mg/L	10.0	10/11/23 15:42	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	10/17/23 17:08	H3
50355500003	**GAMW-42B-100423**					
EPA 9056	Chloride	15.8	mg/L	0.25	10/16/23 18:56	
EPA 9056	Fluoride	0.11	mg/L	0.050	10/16/23 18:56	
EPA 9056	Sulfate	24.1	mg/L	0.25	10/16/23 18:56	
EPA 6010	Boron	0.035J	mg/L	0.10	10/17/23 14:22	
EPA 6010	Calcium	68.4	mg/L	1.0	10/17/23 14:22	
EPA 6020	Arsenic	0.00024J	mg/L	0.0010	10/16/23 08:18	
EPA 6020	Barium	0.021	mg/L	0.0010	10/16/23 08:18	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355500003	**GAMW-42B-100423**					
EPA 6020	Chromium	0.00046J	mg/L	0.0020	10/16/23 08:18	
EPA 6020	Cobalt	0.00015J	mg/L	0.0010	10/16/23 08:18	
EPA 6020	Lead	0.00012J	mg/L	0.0010	10/16/23 08:18	
EPA 6020	Molybdenum	0.0023	mg/L	0.0010	10/16/23 08:18	
SM 2540C	Total Dissolved Solids	246	mg/L	10.0	10/11/23 15:42	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	10/19/23 09:46	H3
50355927001	**GAMW-42C-100923**					
EPA 9056	Chloride	11.9	mg/L	0.25	10/18/23 18:02	
EPA 9056	Fluoride	0.18	mg/L	0.050	10/18/23 18:02	
EPA 9056	Sulfate	4.5	mg/L	0.25	10/18/23 18:02	
EPA 6010	Boron	0.93	mg/L	0.10	10/20/23 15:29	
EPA 6010	Calcium	57.5	mg/L	1.0	10/20/23 15:29	
EPA 6010	Lithium	0.042	mg/L	0.020	10/20/23 15:29	
EPA 6020	Arsenic	0.00024J	mg/L	0.0010	10/13/23 08:06	
EPA 6020	Barium	0.0094	mg/L	0.0010	10/13/23 08:06	
EPA 6020	Chromium	0.00092J	mg/L	0.0020	10/13/23 08:06	
EPA 6020	Cobalt	0.00022J	mg/L	0.0010	10/13/23 08:06	
EPA 6020	Lead	0.00019J	mg/L	0.0010	10/13/23 08:06	
EPA 6020	Molybdenum	0.0024	mg/L	0.0010	10/13/23 08:06	
SM 2540C	Total Dissolved Solids	273	mg/L	10.0	10/12/23 13:33	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	10/20/23 16:40	H3
50355927002	**GAMW-43-100923**					
EPA 9056	Chloride	0.62	mg/L	0.25	10/18/23 20:17	
EPA 9056	Fluoride	0.12	mg/L	0.050	10/18/23 20:17	
EPA 9056	Sulfate	19.6	mg/L	0.25	10/18/23 20:17	
EPA 6010	Boron	0.015J	mg/L	0.10	10/20/23 15:35	
EPA 6010	Calcium	32.3	mg/L	1.0	10/20/23 15:35	
EPA 6020	Antimony	0.00013J	mg/L	0.0010	10/13/23 08:09	
EPA 6020	Arsenic	0.0025	mg/L	0.0010	10/13/23 08:09	
EPA 6020	Barium	0.019	mg/L	0.0010	10/13/23 08:09	
EPA 6020	Cadmium	0.000022J	mg/L	0.00020	10/13/23 08:09	
EPA 6020	Chromium	0.00054J	mg/L	0.0020	10/13/23 08:09	
EPA 6020	Cobalt	0.0014	mg/L	0.0010	10/13/23 08:09	
EPA 6020	Lead	0.00012J	mg/L	0.0010	10/13/23 08:09	
EPA 6020	Molybdenum	0.0054	mg/L	0.0010	10/13/23 08:09	
SM 2540C	Total Dissolved Solids	132	mg/L	10.0	10/12/23 13:33	
SM 4500-H+B	pH at 25 Degrees C	7.9	Std. Units	0.10	10/20/23 16:41	H3
50355927003	**GAMW-43B-100923**					
EPA 9056	Chloride	1.5	mg/L	0.25	10/18/23 21:08	
EPA 9056	Fluoride	0.16	mg/L	0.050	10/18/23 21:08	
EPA 9056	Sulfate	16.8	mg/L	0.25	10/18/23 21:08	
EPA 6010	Boron	0.028J	mg/L	0.10	10/20/23 15:36	
EPA 6010	Calcium	38.5	mg/L	1.0	10/20/23 15:36	
EPA 6020	Arsenic	0.00046J	mg/L	0.0010	10/13/23 08:13	
EPA 6020	Barium	0.011	mg/L	0.0010	10/13/23 08:13	
EPA 6020	Chromium	0.00053J	mg/L	0.0020	10/13/23 08:13	

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SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355927003	**GAMW-43B-100923**					
EPA 6020	Cobalt	0.00013J	mg/L	0.0010	10/13/23 08:13	
EPA 6020	Lead	0.00010J	mg/L	0.0010	10/13/23 08:13	
EPA 6020	Molybdenum	0.0025	mg/L	0.0010	10/13/23 08:13	
SM 2540C	Total Dissolved Solids	135	mg/L	10.0	10/12/23 13:33	
SM 4500-H+B	pH at 25 Degrees C	7.8	Std. Units	0.10	10/20/23 16:42	H3
50355927004	**FD-07-100923**					
EPA 9056	Chloride	1.5	mg/L	0.25	10/18/23 22:32	
EPA 9056	Fluoride	0.16	mg/L	0.050	10/18/23 22:32	
EPA 9056	Sulfate	16.8	mg/L	0.25	10/18/23 22:32	
EPA 6010	Boron	0.028J	mg/L	0.10	10/20/23 15:38	
EPA 6010	Calcium	38.0	mg/L	1.0	10/20/23 15:38	
EPA 6020	Arsenic	0.00047J	mg/L	0.0010	10/13/23 08:27	
EPA 6020	Barium	0.011	mg/L	0.0010	10/13/23 08:27	
EPA 6020	Chromium	0.00061J	mg/L	0.0020	10/13/23 08:27	
EPA 6020	Cobalt	0.00013J	mg/L	0.0010	10/13/23 08:27	
EPA 6020	Lead	0.000096J	mg/L	0.0010	10/13/23 08:27	
EPA 6020	Molybdenum	0.0025	mg/L	0.0010	10/13/23 08:27	
SM 2540C	Total Dissolved Solids	133	mg/L	10.0	10/12/23 13:33	
SM 4500-H+B	pH at 25 Degrees C	7.7	Std. Units	0.10	10/20/23 16:42	H3
50356097001	**GAMW-44-101023**					
EPA 9056	Chloride	1.4	mg/L	0.25	10/20/23 11:41	
EPA 9056	Fluoride	0.12	mg/L	0.050	10/20/23 11:41	
EPA 9056	Sulfate	45.3	mg/L	2.5	10/20/23 11:58	
EPA 6010	Boron	0.042J	mg/L	0.10	10/20/23 15:44	
EPA 6010	Calcium	25.2	mg/L	1.0	10/20/23 15:44	
EPA 6020	Antimony	0.00022J	mg/L	0.0010	10/13/23 08:30	
EPA 6020	Arsenic	0.063	mg/L	0.0010	10/13/23 08:30	
EPA 6020	Barium	0.022	mg/L	0.0010	10/13/23 08:30	
EPA 6020	Beryllium	0.000067J	mg/L	0.00020	10/13/23 08:30	
EPA 6020	Chromium	0.0013J	mg/L	0.0020	10/13/23 08:30	
EPA 6020	Cobalt	0.0011	mg/L	0.0010	10/13/23 08:30	
EPA 6020	Lead	0.000099J	mg/L	0.0010	10/13/23 08:30	
EPA 6020	Molybdenum	0.0093	mg/L	0.0010	10/13/23 08:30	
EPA 6020	Selenium	0.00021J	mg/L	0.0010	10/13/23 08:30	
SM 2540C	Total Dissolved Solids	132	mg/L	10.0	10/16/23 12:04	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	10/24/23 11:57	H3
50356097002	**GAMW-44B-101023**					
EPA 9056	Chloride	1.6	mg/L	0.25	10/19/23 14:36	
EPA 9056	Fluoride	0.094J	mg/L	0.050	10/19/23 14:36	
EPA 9056	Sulfate	5.3	mg/L	0.25	10/19/23 14:36	
EPA 6010	Boron	0.027J	mg/L	0.10	10/20/23 15:45	
EPA 6010	Calcium	32.9	mg/L	1.0	10/20/23 15:45	
EPA 6020	Arsenic	0.00021J	mg/L	0.0010	10/13/23 08:33	
EPA 6020	Barium	0.0088	mg/L	0.0010	10/13/23 08:33	
EPA 6020	Chromium	0.00047J	mg/L	0.0020	10/13/23 08:33	
EPA 6020	Lead	0.00014J	mg/L	0.0010	10/13/23 08:33	

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
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(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50356097002	**GAMW-44B-101023**					
EPA 6020	Molybdenum	0.0018	mg/L	0.0010	10/13/23 08:33	
SM 2540C	Total Dissolved Solids	111	mg/L	10.0	10/16/23 12:04	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	10/24/23 11:57	H3
50356097003	**GAMW-57-101023**					
EPA 9056	Chloride	0.89	mg/L	0.25	10/19/23 15:09	
EPA 9056	Sulfate	26.6	mg/L	0.25	10/19/23 15:09	
EPA 6010	Boron	0.033J	mg/L	0.10	10/20/23 15:47	
EPA 6010	Calcium	22.7	mg/L	1.0	10/20/23 15:47	
EPA 6020	Arsenic	0.00022J	mg/L	0.0010	10/13/23 08:37	
EPA 6020	Barium	0.0056	mg/L	0.0010	10/13/23 08:37	
EPA 6020	Chromium	0.00090J	mg/L	0.0020	10/13/23 08:37	
EPA 6020	Cobalt	0.000097J	mg/L	0.0010	10/13/23 08:37	
EPA 6020	Lead	0.00016J	mg/L	0.0010	10/13/23 08:37	
EPA 6020	Molybdenum	0.00060J	mg/L	0.0010	10/13/23 08:37	
SM 2540C	Total Dissolved Solids	90	mg/L	10.0	10/16/23 12:05	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	10/24/23 11:58	H3
50356097004	**FB-07-101023**					
EPA 6020	Barium	0.00038J	mg/L	0.0010	10/13/23 09:04	
EPA 6020	Chromium	0.00022J	mg/L	0.0020	10/13/23 09:04	
SM 4500-H+B	pH at 25 Degrees C	8.1	Std. Units	0.10	10/24/23 12:00	H3
50356256001	**GAMW-57B-101123**					
EPA 9056	Chloride	14.5	mg/L	0.25	10/21/23 05:25	
EPA 9056	Fluoride	0.11	mg/L	0.050	10/21/23 05:25	
EPA 9056	Sulfate	12.1	mg/L	0.25	10/21/23 05:25	
EPA 6010	Boron	0.079J	mg/L	0.10	10/25/23 13:36	
EPA 6010	Calcium	47.3	mg/L	1.0	10/25/23 13:36	
EPA 6020	Arsenic	0.00073J	mg/L	0.0010	10/25/23 19:09	
EPA 6020	Barium	0.021	mg/L	0.0010	10/25/23 19:09	
EPA 6020	Chromium	0.00044J	mg/L	0.0020	10/25/23 19:09	
EPA 6020	Cobalt	0.00010J	mg/L	0.0010	10/25/23 19:09	
EPA 6020	Molybdenum	0.0039	mg/L	0.0010	10/25/23 19:09	
SM 2540C	Total Dissolved Solids	172	mg/L	10.0	10/17/23 11:58	
SM 4500-H+B	pH at 25 Degrees C	7.6	Std. Units	0.10	10/24/23 16:39	H3
50356256002	**GAMW-58-101123**					
EPA 9056	Chloride	0.91	mg/L	0.25	10/21/23 06:16	
EPA 9056	Fluoride	0.41	mg/L	0.050	10/21/23 06:16	
EPA 9056	Sulfate	41.1	mg/L	0.25	10/21/23 06:16	
EPA 6010	Boron	0.039J	mg/L	0.10	10/25/23 13:37	
EPA 6010	Calcium	11.9	mg/L	1.0	10/25/23 13:37	
EPA 6020	Arsenic	0.0056	mg/L	0.0010	10/25/23 19:13	
EPA 6020	Barium	0.035	mg/L	0.0010	10/25/23 19:13	
EPA 6020	Beryllium	0.00063	mg/L	0.00020	10/25/23 19:13	
EPA 6020	Cadmium	0.000082J	mg/L	0.00020	10/25/23 19:13	
EPA 6020	Chromium	0.00089J	mg/L	0.0020	10/25/23 19:13	
EPA 6020	Cobalt	0.012	mg/L	0.0010	10/25/23 19:13	

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
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(317)228-3100

SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50356256002	**GAMW-58-101123**					
EPA 6020	Lead	0.00031J	mg/L	0.0010	10/25/23 19:13	
EPA 6020	Molybdenum	0.00070J	mg/L	0.0010	10/25/23 19:13	
EPA 6020	Selenium	0.0023	mg/L	0.0010	10/25/23 19:13	
SM 2540C	Total Dissolved Solids	79	mg/L	10.0	10/17/23 11:58	
SM 4500-H+B	pH at 25 Degrees C	7.3	Std. Units	0.10	10/24/23 16:40	H3
50356256003	**GAMW-58B-101123**					
EPA 9056	Chloride	3.9	mg/L	0.25	10/21/23 07:06	
EPA 9056	Fluoride	0.13	mg/L	0.050	10/21/23 07:06	
EPA 9056	Sulfate	20.8	mg/L	0.25	10/21/23 07:06	
EPA 6010	Boron	0.042J	mg/L	0.10	10/25/23 13:39	
EPA 6010	Calcium	40.5	mg/L	1.0	10/25/23 13:39	
EPA 6020	Arsenic	0.00069J	mg/L	0.0010	10/25/23 19:33	
EPA 6020	Barium	0.016	mg/L	0.0010	10/25/23 19:33	
EPA 6020	Chromium	0.00061J	mg/L	0.0020	10/25/23 19:33	
EPA 6020	Cobalt	0.00021J	mg/L	0.0010	10/25/23 19:33	
EPA 6020	Molybdenum	0.0030	mg/L	0.0010	10/25/23 19:33	
SM 2540C	Total Dissolved Solids	129	mg/L	10.0	10/18/23 11:36	
SM 4500-H+B	pH at 25 Degrees C	7.5	Std. Units	0.10	10/24/23 16:42	H3

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Method: **EPA 9056**
Description: 9056 IC Anions
Client: NiSource_WSP Golder
Date: October 26, 2023

General Information:
15 samples were analyzed for EPA 9056 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: October 26, 2023

General Information:
15 samples were analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 756292

1d: The closing CRDL recovery exceeded acceptance limits (18% recovery). MTM 10/17/23

- BLANK (Lab ID: 3466319)
  - Lithium
- GAMW-42-100423 (Lab ID: 50355500002)
  - Lithium
- GAMW-42B-100423 (Lab ID: 50355500003)
  - Lithium
- GAMW-46-100323 (Lab ID: 50355350001)
  - Lithium
- GAMW-46B-100423 (Lab ID: 50355500001)
  - Lithium
- LCS (Lab ID: 3466320)
  - Lithium

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: October 26, 2023

Analyte Comments:

QC Batch: 756292

1d: The closing CRDL recovery exceeded acceptance limits (18% recovery). MTM 10/17/23

- MS (Lab ID: 3466321)
  - Lithium
- MSD (Lab ID: 3466322)
  - Lithium

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: NiSource_WSP Golder
Date: October 26, 2023

General Information:
15 samples were analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 756313

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50355756001

P6: Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

- MS (Lab ID: 3466384)
  - Barium
- MSD (Lab ID: 3466385)
  - Barium
  - Molybdenum

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Method: **EPA 7470**
Description: 7470 Mercury
Client: NiSource_WSP Golder
Date: October 26, 2023

General Information:
15 samples were analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 756688

2d: The opening CRDL recovery exceeded acceptance limits (134.45% recovery).

- FD-07-100923 (Lab ID: 50355927004)
  - Mercury
- GAMW-42C-100923 (Lab ID: 50355927001)
  - Mercury
- GAMW-43-100923 (Lab ID: 50355927002)
  - Mercury
- GAMW-43B-100923 (Lab ID: 50355927003)
  - Mercury

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: NiSource_WSP Golder
Date: October 26, 2023

General Information:
15 samples were analyzed for SM 2540C by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 757508

PL: The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.
- FB-07-101023 (Lab ID: 50356097004)
  - Total Dissolved Solids

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: NiSource_WSP Golder
Date: October 26, 2023

General Information:
15 samples were analyzed for SM 4500-H+B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- FB-07-101023 (Lab ID: 50356097004)
- FD-07-100923 (Lab ID: 50355927004)
- GAMW-42-100423 (Lab ID: 50355500002)
- GAMW-42B-100423 (Lab ID: 50355500003)
- GAMW-42C-100923 (Lab ID: 50355927001)
- GAMW-43-100923 (Lab ID: 50355927002)
- GAMW-43B-100923 (Lab ID: 50355927003)
- GAMW-44-101023 (Lab ID: 50356097001)
- GAMW-44B-101023 (Lab ID: 50356097002)
- GAMW-46-100323 (Lab ID: 50355350001)
- GAMW-46B-100423 (Lab ID: 50355500001)
- GAMW-57-101023 (Lab ID: 50356097003)
- GAMW-57B-101123 (Lab ID: 50356256001)
- GAMW-58-101123 (Lab ID: 50356256002)
- GAMW-58B-101123 (Lab ID: 50356256003)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-46-100323 **Lab ID: 50355350001** Collected: 10/03/23 13:25 Received: 10/04/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.0**	mg/L	0.25	0.067	1		10/14/23 05:41	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		10/14/23 05:41	16984-48-8	
Sulfate	**28.4**	mg/L	0.25	0.19	1		10/14/23 05:41	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.036J**	mg/L	0.10	0.011	1	10/09/23 20:41	10/17/23 14:09	7440-42-8	
Calcium	**28.2**	mg/L	1.0	0.057	1	10/09/23 20:41	10/17/23 14:09	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/09/23 20:41	10/17/23 14:09	7439-93-2	1d
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00017J**	mg/L	0.0010	0.000044	1	10/05/23 07:30	10/06/23 04:52	7440-36-0	
Arsenic	**0.00045J**	mg/L	0.0010	0.000064	1	10/05/23 07:30	10/06/23 04:52	7440-38-2	
Barium	**0.0043**	mg/L	0.0010	0.000067	1	10/05/23 07:30	10/06/23 04:52	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/05/23 07:30	10/06/23 04:52	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/05/23 07:30	10/06/23 04:52	7440-43-9	
Chromium	**0.00047J**	mg/L	0.0020	0.00015	1	10/05/23 07:30	10/06/23 04:52	7440-47-3	
Cobalt	**0.000063J**	mg/L	0.0010	0.000024	1	10/05/23 07:30	10/06/23 04:52	7440-48-4	
Lead	**0.000065J**	mg/L	0.0010	0.000019	1	10/05/23 07:30	10/06/23 04:52	7439-92-1	
Molybdenum	**0.00065J**	mg/L	0.0010	0.000031	1	10/05/23 07:30	10/06/23 04:52	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00023	1	10/05/23 07:30	10/06/23 04:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000042	1	10/05/23 07:30	10/06/23 04:52	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/09/23 13:27	10/11/23 09:21	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**96**	mg/L	10.0	10.0	1		10/10/23 15:19		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		10/17/23 16:55		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-46B-100423 **Lab ID: 50355500001** Collected: 10/04/23 10:45 Received: 10/05/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**5.9**	mg/L	0.25	0.067	1		10/16/23 16:41	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		10/16/23 16:41	16984-48-8	
Sulfate	**53.2**	mg/L	2.5	1.9	10		10/16/23 16:57	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.037J**	mg/L	0.10	0.011	1	10/09/23 20:41	10/17/23 14:15	7440-42-8	
Calcium	**53.2**	mg/L	1.0	0.057	1	10/09/23 20:41	10/17/23 14:15	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/09/23 20:41	10/17/23 14:15	7439-93-2	1d
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/10/23 15:21	10/16/23 08:11	7440-36-0	
Arsenic	**0.00061J**	mg/L	0.0010	0.00012	1	10/10/23 15:21	10/16/23 08:11	7440-38-2	
Barium	**0.023**	mg/L	0.0010	0.000065	1	10/10/23 15:21	10/16/23 08:11	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/10/23 15:21	10/16/23 08:11	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/10/23 15:21	10/16/23 08:11	7440-43-9	
Chromium	**0.00025J**	mg/L	0.0020	0.00018	1	10/10/23 15:21	10/16/23 08:11	7440-47-3	
Cobalt	**0.000081J**	mg/L	0.0010	0.000071	1	10/10/23 15:21	10/16/23 08:11	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	10/10/23 15:21	10/16/23 08:11	7439-92-1	
Molybdenum	**0.0023**	mg/L	0.0010	0.000074	1	10/10/23 15:21	10/16/23 08:11	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/10/23 15:21	10/16/23 08:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/10/23 15:21	10/16/23 08:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/09/23 18:26	10/11/23 10:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**193**	mg/L	10.0	10.0	1		10/11/23 15:41		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.0**	Std. Units	0.10	0.10	1		10/17/23 17:07		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-42-100423 **Lab ID: 50355500002** Collected: 10/04/23 12:20 Received: 10/05/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**10.3**	mg/L	0.25	0.067	1		10/16/23 17:31	16887-00-6	
Fluoride	**0.13**	mg/L	0.050	0.017	1		10/16/23 17:31	16984-48-8	
Sulfate	**57.1**	mg/L	2.5	1.9	10		10/16/23 17:48	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.024J**	mg/L	0.10	0.011	1	10/09/23 20:41	10/17/23 14:16	7440-42-8	
Calcium	**61.7**	mg/L	1.0	0.057	1	10/09/23 20:41	10/17/23 14:16	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/09/23 20:41	10/17/23 14:16	7439-93-2	1d
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/10/23 15:21	10/16/23 08:15	7440-36-0	
Arsenic	**0.0012**	mg/L	0.0010	0.00012	1	10/10/23 15:21	10/16/23 08:15	7440-38-2	
Barium	**0.022**	mg/L	0.0010	0.000065	1	10/10/23 15:21	10/16/23 08:15	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/10/23 15:21	10/16/23 08:15	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/10/23 15:21	10/16/23 08:15	7440-43-9	
Chromium	**0.00078J**	mg/L	0.0020	0.00018	1	10/10/23 15:21	10/16/23 08:15	7440-47-3	
Cobalt	**0.00012J**	mg/L	0.0010	0.000071	1	10/10/23 15:21	10/16/23 08:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	10/10/23 15:21	10/16/23 08:15	7439-92-1	
Molybdenum	**0.0036**	mg/L	0.0010	0.000074	1	10/10/23 15:21	10/16/23 08:15	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/10/23 15:21	10/16/23 08:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/10/23 15:21	10/16/23 08:15	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/09/23 18:26	10/11/23 10:34	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**253**	mg/L	10.0	10.0	1		10/11/23 15:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		10/17/23 17:08		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-42B-100423 **Lab ID: 50355500003** Collected: 10/04/23 13:55 Received: 10/05/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**15.8**	mg/L	0.25	0.067	1		10/16/23 18:56	16887-00-6	
Fluoride	**0.11**	mg/L	0.050	0.017	1		10/16/23 18:56	16984-48-8	
Sulfate	**24.1**	mg/L	0.25	0.19	1		10/16/23 18:56	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.035J**	mg/L	0.10	0.011	1	10/09/23 20:41	10/17/23 14:22	7440-42-8	
Calcium	**68.4**	mg/L	1.0	0.057	1	10/09/23 20:41	10/17/23 14:22	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/09/23 20:41	10/17/23 14:22	7439-93-2	1d
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/10/23 15:21	10/16/23 08:18	7440-36-0	
Arsenic	**0.00024J**	mg/L	0.0010	0.00012	1	10/10/23 15:21	10/16/23 08:18	7440-38-2	
Barium	**0.021**	mg/L	0.0010	0.000065	1	10/10/23 15:21	10/16/23 08:18	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/10/23 15:21	10/16/23 08:18	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/10/23 15:21	10/16/23 08:18	7440-43-9	
Chromium	**0.00046J**	mg/L	0.0020	0.00018	1	10/10/23 15:21	10/16/23 08:18	7440-47-3	
Cobalt	**0.00015J**	mg/L	0.0010	0.000071	1	10/10/23 15:21	10/16/23 08:18	7440-48-4	
Lead	**0.00012J**	mg/L	0.0010	0.000068	1	10/10/23 15:21	10/16/23 08:18	7439-92-1	
Molybdenum	**0.0023**	mg/L	0.0010	0.000074	1	10/10/23 15:21	10/16/23 08:18	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/10/23 15:21	10/16/23 08:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/10/23 15:21	10/16/23 08:18	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/09/23 18:26	10/11/23 10:36	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**246**	mg/L	10.0	10.0	1		10/11/23 15:42		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		10/19/23 09:46		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-42C-100923 **Lab ID: 50355927001** Collected: 10/09/23 11:55 Received: 10/10/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**11.9**	mg/L	0.25	0.067	1		10/18/23 18:02	16887-00-6	
Fluoride	**0.18**	mg/L	0.050	0.017	1		10/18/23 18:02	16984-48-8	
Sulfate	**4.5**	mg/L	0.25	0.19	1		10/18/23 18:02	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.93**	mg/L	0.10	0.011	1	10/12/23 08:30	10/20/23 15:29	7440-42-8	
Calcium	**57.5**	mg/L	1.0	0.057	1	10/12/23 08:30	10/20/23 15:29	7440-70-2	
Lithium	**0.042**	mg/L	0.020	0.0051	1	10/12/23 08:30	10/20/23 15:29	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/12/23 16:56	10/13/23 08:06	7440-36-0	
Arsenic	**0.00024J**	mg/L	0.0010	0.00012	1	10/12/23 16:56	10/13/23 08:06	7440-38-2	
Barium	**0.0094**	mg/L	0.0010	0.000065	1	10/12/23 16:56	10/13/23 08:06	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/12/23 16:56	10/13/23 08:06	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/12/23 16:56	10/13/23 08:06	7440-43-9	
Chromium	**0.00092J**	mg/L	0.0020	0.00018	1	10/12/23 16:56	10/13/23 08:06	7440-47-3	
Cobalt	**0.00022J**	mg/L	0.0010	0.000071	1	10/12/23 16:56	10/13/23 08:06	7440-48-4	
Lead	**0.00019J**	mg/L	0.0010	0.000068	1	10/12/23 16:56	10/13/23 08:06	7439-92-1	
Molybdenum	**0.0024**	mg/L	0.0010	0.000074	1	10/12/23 16:56	10/13/23 08:06	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/12/23 16:56	10/13/23 08:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/12/23 16:56	10/13/23 08:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/16/23 19:14	10/17/23 10:27	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**273**	mg/L	10.0	10.0	1		10/12/23 13:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		10/20/23 16:40		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-43-100923 **Lab ID: 50355927002** Collected: 10/09/23 13:10 Received: 10/10/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.62**	mg/L	0.25	0.067	1		10/18/23 20:17	16887-00-6	
Fluoride	**0.12**	mg/L	0.050	0.017	1		10/18/23 20:17	16984-48-8	
Sulfate	**19.6**	mg/L	0.25	0.19	1		10/18/23 20:17	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.015J**	mg/L	0.10	0.011	1	10/12/23 08:30	10/20/23 15:35	7440-42-8	
Calcium	**32.3**	mg/L	1.0	0.057	1	10/12/23 08:30	10/20/23 15:35	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/12/23 08:30	10/20/23 15:35	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00013J**	mg/L	0.0010	0.000080	1	10/12/23 16:56	10/13/23 08:09	7440-36-0	
Arsenic	**0.0025**	mg/L	0.0010	0.00012	1	10/12/23 16:56	10/13/23 08:09	7440-38-2	
Barium	**0.019**	mg/L	0.0010	0.000065	1	10/12/23 16:56	10/13/23 08:09	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/12/23 16:56	10/13/23 08:09	7440-41-7	
Cadmium	**0.000022J**	mg/L	0.00020	0.000016	1	10/12/23 16:56	10/13/23 08:09	7440-43-9	
Chromium	**0.00054J**	mg/L	0.0020	0.00018	1	10/12/23 16:56	10/13/23 08:09	7440-47-3	
Cobalt	**0.0014**	mg/L	0.0010	0.000071	1	10/12/23 16:56	10/13/23 08:09	7440-48-4	
Lead	**0.00012J**	mg/L	0.0010	0.000068	1	10/12/23 16:56	10/13/23 08:09	7439-92-1	
Molybdenum	**0.0054**	mg/L	0.0010	0.000074	1	10/12/23 16:56	10/13/23 08:09	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/12/23 16:56	10/13/23 08:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/12/23 16:56	10/13/23 08:09	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/16/23 19:14	10/17/23 10:30	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**132**	mg/L	10.0	10.0	1		10/12/23 13:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.9**	Std. Units	0.10	0.10	1		10/20/23 16:41		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-43B-100923 **Lab ID: 50355927003** Collected: 10/09/23 14:05 Received: 10/10/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**1.5**	mg/L	0.25	0.067	1		10/18/23 21:08	16887-00-6	
Fluoride	**0.16**	mg/L	0.050	0.017	1		10/18/23 21:08	16984-48-8	
Sulfate	**16.8**	mg/L	0.25	0.19	1		10/18/23 21:08	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.028J**	mg/L	0.10	0.011	1	10/12/23 08:30	10/20/23 15:36	7440-42-8	
Calcium	**38.5**	mg/L	1.0	0.057	1	10/12/23 08:30	10/20/23 15:36	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/12/23 08:30	10/20/23 15:36	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/12/23 16:56	10/13/23 08:13	7440-36-0	
Arsenic	**0.00046J**	mg/L	0.0010	0.00012	1	10/12/23 16:56	10/13/23 08:13	7440-38-2	
Barium	**0.011**	mg/L	0.0010	0.000065	1	10/12/23 16:56	10/13/23 08:13	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/12/23 16:56	10/13/23 08:13	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/12/23 16:56	10/13/23 08:13	7440-43-9	
Chromium	**0.00053J**	mg/L	0.0020	0.00018	1	10/12/23 16:56	10/13/23 08:13	7440-47-3	
Cobalt	**0.00013J**	mg/L	0.0010	0.000071	1	10/12/23 16:56	10/13/23 08:13	7440-48-4	
Lead	**0.00010J**	mg/L	0.0010	0.000068	1	10/12/23 16:56	10/13/23 08:13	7439-92-1	
Molybdenum	**0.0025**	mg/L	0.0010	0.000074	1	10/12/23 16:56	10/13/23 08:13	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/12/23 16:56	10/13/23 08:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/12/23 16:56	10/13/23 08:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/16/23 19:14	10/17/23 10:32	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**135**	mg/L	10.0	10.0	1		10/12/23 13:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.8**	Std. Units	0.10	0.10	1		10/20/23 16:42		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: FD-07-100923 **Lab ID: 50355927004** Collected: 10/09/23 12:00 Received: 10/10/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**1.5**	mg/L	0.25	0.067	1		10/18/23 22:32	16887-00-6	
Fluoride	**0.16**	mg/L	0.050	0.017	1		10/18/23 22:32	16984-48-8	
Sulfate	**16.8**	mg/L	0.25	0.19	1		10/18/23 22:32	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.028J**	mg/L	0.10	0.011	1	10/12/23 08:30	10/20/23 15:38	7440-42-8	
Calcium	**38.0**	mg/L	1.0	0.057	1	10/12/23 08:30	10/20/23 15:38	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/12/23 08:30	10/20/23 15:38	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/12/23 16:56	10/13/23 08:27	7440-36-0	
Arsenic	**0.00047J**	mg/L	0.0010	0.00012	1	10/12/23 16:56	10/13/23 08:27	7440-38-2	
Barium	**0.011**	mg/L	0.0010	0.000065	1	10/12/23 16:56	10/13/23 08:27	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/12/23 16:56	10/13/23 08:27	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/12/23 16:56	10/13/23 08:27	7440-43-9	
Chromium	**0.00061J**	mg/L	0.0020	0.00018	1	10/12/23 16:56	10/13/23 08:27	7440-47-3	
Cobalt	**0.00013J**	mg/L	0.0010	0.000071	1	10/12/23 16:56	10/13/23 08:27	7440-48-4	
Lead	**0.000096J**	mg/L	0.0010	0.000068	1	10/12/23 16:56	10/13/23 08:27	7439-92-1	
Molybdenum	**0.0025**	mg/L	0.0010	0.000074	1	10/12/23 16:56	10/13/23 08:27	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/12/23 16:56	10/13/23 08:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/12/23 16:56	10/13/23 08:27	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.12	1	10/16/23 19:14	10/17/23 10:35	7439-97-6	2d
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**133**	mg/L	10.0	10.0	1		10/12/23 13:33		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.7**	Std. Units	0.10	0.10	1		10/20/23 16:42		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-44-101023 **Lab ID: 50356097001** Collected: 10/10/23 10:45 Received: 10/11/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**1.4**	mg/L	0.25	0.067	1		10/20/23 11:41	16887-00-6	
Fluoride	**0.12**	mg/L	0.050	0.017	1		10/20/23 11:41	16984-48-8	
Sulfate	**45.3**	mg/L	2.5	1.9	10		10/20/23 11:58	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.042J**	mg/L	0.10	0.011	1	10/12/23 08:30	10/20/23 15:44	7440-42-8	
Calcium	**25.2**	mg/L	1.0	0.057	1	10/12/23 08:30	10/20/23 15:44	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/12/23 08:30	10/20/23 15:44	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	**0.00022J**	mg/L	0.0010	0.000080	1	10/12/23 16:56	10/13/23 08:30	7440-36-0	
Arsenic	**0.063**	mg/L	0.0010	0.00012	1	10/12/23 16:56	10/13/23 08:30	7440-38-2	
Barium	**0.022**	mg/L	0.0010	0.000065	1	10/12/23 16:56	10/13/23 08:30	7440-39-3	
Beryllium	**0.000067J**	mg/L	0.00020	0.000026	1	10/12/23 16:56	10/13/23 08:30	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/12/23 16:56	10/13/23 08:30	7440-43-9	
Chromium	**0.0013J**	mg/L	0.0020	0.00018	1	10/12/23 16:56	10/13/23 08:30	7440-47-3	
Cobalt	**0.0011**	mg/L	0.0010	0.000071	1	10/12/23 16:56	10/13/23 08:30	7440-48-4	
Lead	**0.000099J**	mg/L	0.0010	0.000068	1	10/12/23 16:56	10/13/23 08:30	7439-92-1	
Molybdenum	**0.0093**	mg/L	0.0010	0.000074	1	10/12/23 16:56	10/13/23 08:30	7439-98-7	
Selenium	**0.00021J**	mg/L	0.0010	0.00019	1	10/12/23 16:56	10/13/23 08:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/12/23 16:56	10/13/23 08:30	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/16/23 12:01	10/16/23 18:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**132**	mg/L	10.0	10.0	1		10/16/23 12:04		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		10/24/23 11:57		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-44B-101023 **Lab ID: 50356097002** Collected: 10/10/23 11:45 Received: 10/11/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**1.6**	mg/L	0.25	0.067	1		10/19/23 14:36	16887-00-6	
Fluoride	**0.094J**	mg/L	0.050	0.017	1		10/19/23 14:36	16984-48-8	
Sulfate	**5.3**	mg/L	0.25	0.19	1		10/19/23 14:36	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.027J**	mg/L	0.10	0.011	1	10/12/23 08:30	10/20/23 15:45	7440-42-8	
Calcium	**32.9**	mg/L	1.0	0.057	1	10/12/23 08:30	10/20/23 15:45	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/12/23 08:30	10/20/23 15:45	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/12/23 16:56	10/13/23 08:33	7440-36-0	
Arsenic	**0.00021J**	mg/L	0.0010	0.00012	1	10/12/23 16:56	10/13/23 08:33	7440-38-2	
Barium	**0.0088**	mg/L	0.0010	0.000065	1	10/12/23 16:56	10/13/23 08:33	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/12/23 16:56	10/13/23 08:33	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/12/23 16:56	10/13/23 08:33	7440-43-9	
Chromium	**0.00047J**	mg/L	0.0020	0.00018	1	10/12/23 16:56	10/13/23 08:33	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000071	1	10/12/23 16:56	10/13/23 08:33	7440-48-4	
Lead	**0.00014J**	mg/L	0.0010	0.000068	1	10/12/23 16:56	10/13/23 08:33	7439-92-1	
Molybdenum	**0.0018**	mg/L	0.0010	0.000074	1	10/12/23 16:56	10/13/23 08:33	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/12/23 16:56	10/13/23 08:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/12/23 16:56	10/13/23 08:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/16/23 12:01	10/16/23 18:28	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**111**	mg/L	10.0	10.0	1		10/16/23 12:04		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		10/24/23 11:57		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-57-101023 **Lab ID: 50356097003** Collected: 10/10/23 13:10 Received: 10/11/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.89**	mg/L	0.25	0.067	1		10/19/23 15:09	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		10/19/23 15:09	16984-48-8	
Sulfate	**26.6**	mg/L	0.25	0.19	1		10/19/23 15:09	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.033J**	mg/L	0.10	0.011	1	10/12/23 08:30	10/20/23 15:47	7440-42-8	
Calcium	**22.7**	mg/L	1.0	0.057	1	10/12/23 08:30	10/20/23 15:47	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/12/23 08:30	10/20/23 15:47	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/12/23 16:56	10/13/23 08:37	7440-36-0	
Arsenic	**0.00022J**	mg/L	0.0010	0.00012	1	10/12/23 16:56	10/13/23 08:37	7440-38-2	
Barium	**0.0056**	mg/L	0.0010	0.000065	1	10/12/23 16:56	10/13/23 08:37	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/12/23 16:56	10/13/23 08:37	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/12/23 16:56	10/13/23 08:37	7440-43-9	
Chromium	**0.00090J**	mg/L	0.0020	0.00018	1	10/12/23 16:56	10/13/23 08:37	7440-47-3	
Cobalt	**0.000097J**	mg/L	0.0010	0.000071	1	10/12/23 16:56	10/13/23 08:37	7440-48-4	
Lead	**0.00016J**	mg/L	0.0010	0.000068	1	10/12/23 16:56	10/13/23 08:37	7439-92-1	
Molybdenum	**0.00060J**	mg/L	0.0010	0.000074	1	10/12/23 16:56	10/13/23 08:37	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/12/23 16:56	10/13/23 08:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/12/23 16:56	10/13/23 08:37	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/16/23 12:01	10/16/23 18:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**90**	mg/L	10.0	10.0	1		10/16/23 12:05		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		10/24/23 11:58		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: FB-07-101023 **Lab ID: 50356097004** Collected: 10/10/23 14:00 Received: 10/11/23 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	ND	mg/L	0.25	0.067	1		10/20/23 12:15	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		10/20/23 12:15	16984-48-8	
Sulfate	ND	mg/L	0.25	0.19	1		10/20/23 12:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	ND	mg/L	0.10	0.011	1	10/12/23 08:30	10/20/23 15:59	7440-42-8	
Calcium	ND	mg/L	1.0	0.057	1	10/12/23 08:30	10/20/23 15:59	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/12/23 08:30	10/20/23 15:59	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.000080	1	10/12/23 16:56	10/13/23 09:04	7440-36-0	
Arsenic	ND	mg/L	0.0010	0.00012	1	10/12/23 16:56	10/13/23 09:04	7440-38-2	
Barium	**0.00038J**	mg/L	0.0010	0.000065	1	10/12/23 16:56	10/13/23 09:04	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/12/23 16:56	10/13/23 09:04	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000016	1	10/12/23 16:56	10/13/23 09:04	7440-43-9	
Chromium	**0.00022J**	mg/L	0.0020	0.00018	1	10/12/23 16:56	10/13/23 09:04	7440-47-3	
Cobalt	ND	mg/L	0.0010	0.000071	1	10/12/23 16:56	10/13/23 09:04	7440-48-4	
Lead	ND	mg/L	0.0010	0.000068	1	10/12/23 16:56	10/13/23 09:04	7439-92-1	
Molybdenum	ND	mg/L	0.0010	0.000074	1	10/12/23 16:56	10/13/23 09:04	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00019	1	10/12/23 16:56	10/13/23 09:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	10/12/23 16:56	10/13/23 09:04	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/16/23 12:01	10/16/23 18:43	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/16/23 12:05		PL
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**8.1**	Std. Units	0.10	0.10	1		10/24/23 12:00		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-57B-101123 **Lab ID: 50356256001** Collected: 10/11/23 10:05 Received: 10/12/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**14.5**	mg/L	0.25	0.067	1		10/21/23 05:25	16887-00-6	
Fluoride	**0.11**	mg/L	0.050	0.017	1		10/21/23 05:25	16984-48-8	
Sulfate	**12.1**	mg/L	0.25	0.19	1		10/21/23 05:25	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.079J**	mg/L	0.10	0.011	1	10/18/23 16:09	10/25/23 13:36	7440-42-8	
Calcium	**47.3**	mg/L	1.0	0.057	1	10/18/23 16:09	10/25/23 13:36	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/18/23 16:09	10/25/23 13:36	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00013	1	10/17/23 07:22	10/25/23 19:09	7440-36-0	
Arsenic	**0.00073J**	mg/L	0.0010	0.00010	1	10/17/23 07:22	10/25/23 19:09	7440-38-2	
Barium	**0.021**	mg/L	0.0010	0.00014	1	10/17/23 07:22	10/25/23 19:09	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/17/23 07:22	10/25/23 19:09	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000054	1	10/17/23 07:22	10/25/23 19:09	7440-43-9	
Chromium	**0.00044J**	mg/L	0.0020	0.00020	1	10/17/23 07:22	10/25/23 19:09	7440-47-3	
Cobalt	**0.00010J**	mg/L	0.0010	0.000082	1	10/17/23 07:22	10/25/23 19:09	7440-48-4	
Lead	ND	mg/L	0.0010	0.000080	1	10/17/23 07:22	10/25/23 19:09	7439-92-1	
Molybdenum	**0.0039**	mg/L	0.0010	0.000072	1	10/17/23 07:22	10/25/23 19:09	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00044	1	10/17/23 07:22	10/25/23 19:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000072	1	10/17/23 07:22	10/25/23 19:09	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/16/23 12:01	10/16/23 18:57	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**172**	mg/L	10.0	10.0	1		10/17/23 11:58		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.6**	Std. Units	0.10	0.10	1		10/24/23 16:39		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-58-101123 **Lab ID: 50356256002** Collected: 10/11/23 11:30 Received: 10/12/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**0.91**	mg/L	0.25	0.067	1		10/21/23 06:16	16887-00-6	
Fluoride	**0.41**	mg/L	0.050	0.017	1		10/21/23 06:16	16984-48-8	
Sulfate	**41.1**	mg/L	0.25	0.19	1		10/21/23 06:16	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.039J**	mg/L	0.10	0.011	1	10/18/23 16:09	10/25/23 13:37	7440-42-8	
Calcium	**11.9**	mg/L	1.0	0.057	1	10/18/23 16:09	10/25/23 13:37	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/18/23 16:09	10/25/23 13:37	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00013	1	10/17/23 07:22	10/25/23 19:13	7440-36-0	
Arsenic	**0.0056**	mg/L	0.0010	0.00010	1	10/17/23 07:22	10/25/23 19:13	7440-38-2	
Barium	**0.035**	mg/L	0.0010	0.00014	1	10/17/23 07:22	10/25/23 19:13	7440-39-3	
Beryllium	**0.00063**	mg/L	0.00020	0.000026	1	10/17/23 07:22	10/25/23 19:13	7440-41-7	
Cadmium	**0.000082J**	mg/L	0.00020	0.000054	1	10/17/23 07:22	10/25/23 19:13	7440-43-9	
Chromium	**0.00089J**	mg/L	0.0020	0.00020	1	10/17/23 07:22	10/25/23 19:13	7440-47-3	
Cobalt	**0.012**	mg/L	0.0010	0.000082	1	10/17/23 07:22	10/25/23 19:13	7440-48-4	
Lead	**0.00031J**	mg/L	0.0010	0.000080	1	10/17/23 07:22	10/25/23 19:13	7439-92-1	
Molybdenum	**0.00070J**	mg/L	0.0010	0.000072	1	10/17/23 07:22	10/25/23 19:13	7439-98-7	
Selenium	**0.0023**	mg/L	0.0010	0.00044	1	10/17/23 07:22	10/25/23 19:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000072	1	10/17/23 07:22	10/25/23 19:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/16/23 12:01	10/16/23 19:00	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**79**	mg/L	10.0	10.0	1		10/17/23 11:58		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.3**	Std. Units	0.10	0.10	1		10/24/23 16:40		H3

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Sample: GAMW-58B-101123 **Lab ID: 50356256003** Collected: 10/11/23 12:30 Received: 10/12/23 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**3.9**	mg/L	0.25	0.067	1		10/21/23 07:06	16887-00-6	
Fluoride	**0.13**	mg/L	0.050	0.017	1		10/21/23 07:06	16984-48-8	
Sulfate	**20.8**	mg/L	0.25	0.19	1		10/21/23 07:06	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.042J**	mg/L	0.10	0.011	1	10/18/23 16:09	10/25/23 13:39	7440-42-8	
Calcium	**40.5**	mg/L	1.0	0.057	1	10/18/23 16:09	10/25/23 13:39	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	10/18/23 16:09	10/25/23 13:39	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00013	1	10/17/23 07:22	10/25/23 19:33	7440-36-0	
Arsenic	**0.00069J**	mg/L	0.0010	0.00010	1	10/17/23 07:22	10/25/23 19:33	7440-38-2	
Barium	**0.016**	mg/L	0.0010	0.00014	1	10/17/23 07:22	10/25/23 19:33	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000026	1	10/17/23 07:22	10/25/23 19:33	7440-41-7	
Cadmium	ND	mg/L	0.00020	0.000054	1	10/17/23 07:22	10/25/23 19:33	7440-43-9	
Chromium	**0.00061J**	mg/L	0.0020	0.00020	1	10/17/23 07:22	10/25/23 19:33	7440-47-3	
Cobalt	**0.00021J**	mg/L	0.0010	0.000082	1	10/17/23 07:22	10/25/23 19:33	7440-48-4	
Lead	ND	mg/L	0.0010	0.000080	1	10/17/23 07:22	10/25/23 19:33	7439-92-1	
Molybdenum	**0.0030**	mg/L	0.0010	0.000072	1	10/17/23 07:22	10/25/23 19:33	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00044	1	10/17/23 07:22	10/25/23 19:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000072	1	10/17/23 07:22	10/25/23 19:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	10/16/23 12:01	10/16/23 19:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**129**	mg/L	10.0	10.0	1		10/18/23 11:36		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.5**	Std. Units	0.10	0.10	1		10/24/23 16:42		H3

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757163
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50355350001

METHOD BLANK: 3470086 Matrix: Water
Associated Lab Samples: 50355350001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	10/13/23 10:57	
Fluoride	mg/L	ND	0.050	0.017	10/13/23 10:57	
Sulfate	mg/L	ND	0.25	0.19	10/13/23 10:57	

LABORATORY CONTROL SAMPLE: 3470087

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	97	80-120	
Fluoride	mg/L	1	1.1	106	80-120	
Sulfate	mg/L	5	4.8	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3470088 3470089

Parameter	Units	50355430002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10.9	25	25	33.1	33.4	89	90	80-120	1	15	
Fluoride	mg/L	ND	1	1	1.0	1.0	99	100	80-120	1	15	
Sulfate	mg/L	22.6	5	5	27.4	28.0	96	108	80-120	2	15	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757364
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355500001, 50355500002, 50355500003

METHOD BLANK: 3471381 Matrix: Water
Associated Lab Samples: 50355500001, 50355500002, 50355500003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	10/16/23 16:07	
Fluoride	mg/L	ND	0.050	0.017	10/16/23 16:07	
Sulfate	mg/L	ND	0.25	0.19	10/16/23 16:07	

LABORATORY CONTROL SAMPLE: 3471382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.94	94	80-120	
Sulfate	mg/L	5	4.6	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3471388 3471389

Parameter	Units	50356320001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	48.2	25	25	69.3	69.1	84	84	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.99	0.99	94	94	80-120	0	15	
Sulfate	mg/L	78.4	50	50	119	119	81	80	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757745
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004, 50356097001, 50356097002, 50356097003, 50356097004

METHOD BLANK: 3472609 Matrix: Water
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004, 50356097001, 50356097002, 50356097003, 50356097004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	10/19/23 16:51	
Fluoride	mg/L	ND	0.050	0.017	10/19/23 16:51	
Sulfate	mg/L	ND	0.25	0.19	10/19/23 16:51	

LABORATORY CONTROL SAMPLE: 3472610

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.93	93	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3472611 3472612

Parameter	Units	50356097003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	0.89	2.5	2.5	3.1	3.1	89	89	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.91	0.91	91	91	80-120	0	15	
Sulfate	mg/L	26.6	5	5	31.0	31.0	87	89	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 758028
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356256001, 50356256002, 50356256003

METHOD BLANK: 3473743 Matrix: Water
Associated Lab Samples: 50356256001, 50356256002, 50356256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	10/20/23 10:47	
Fluoride	mg/L	ND	0.050	0.017	10/20/23 10:47	
Sulfate	mg/L	ND	0.25	0.19	10/20/23 10:47	

LABORATORY CONTROL SAMPLE: 3473744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.3	93	80-120	
Fluoride	mg/L	1	0.93	93	80-120	
Sulfate	mg/L	5	4.6	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3473745 3473746

Parameter	Units	50356191006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	32.0	25	25	55.2	55.2	93	93	80-120	0	15	
Fluoride	mg/L	ND	1	1	0.98	0.98	94	94	80-120	0	15	
Sulfate	mg/L	15.8	5	5	20.1	20.0	86	85	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756358
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355350001

METHOD BLANK: 3466519 Matrix: Water
Associated Lab Samples: 50355350001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	10/11/23 08:42	

LABORATORY CONTROL SAMPLE: 3466520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466521 3466522

Parameter	Units	50355308002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.8	93	96	75-125	3	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756360
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355500001, 50355500002, 50355500003

METHOD BLANK: 3466526 Matrix: Water
Associated Lab Samples: 50355500001, 50355500002, 50355500003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	10/11/23 09:46	

LABORATORY CONTROL SAMPLE: 3466527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466528 3466529

Parameter	Units	50355496003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	<0.0020 mg/L	5	5	4.8	4.8	95	96	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756688
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004

METHOD BLANK: 3467807 Matrix: Water
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.12	10/17/23 09:27	

LABORATORY CONTROL SAMPLE: 3467808

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3467809 3467810

Parameter	Units	50355922016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.5	5.0	90	99	75-125	9	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757427
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356097001, 50356097002, 50356097003, 50356097004, 50356256001, 50356256002, 50356256003

METHOD BLANK: 3471737 Matrix: Water
Associated Lab Samples: 50356097001, 50356097002, 50356097003, 50356097004, 50356256001, 50356256002, 50356256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	10/16/23 18:09	

LABORATORY CONTROL SAMPLE: 3471738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3471739 3471740

Parameter	Units	50356097003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.7	93	94	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756292
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355350001, 50355500001, 50355500002, 50355500003

METHOD BLANK: 3466319 Matrix: Water
Associated Lab Samples: 50355350001, 50355500001, 50355500002, 50355500003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.011	10/17/23 13:46	
Calcium	mg/L	ND	1.0	0.057	10/17/23 13:46	
Lithium	mg/L	ND	0.020	0.0051	10/17/23 13:46	1d

LABORATORY CONTROL SAMPLE: 3466320

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.96	96	80-120	
Calcium	mg/L	10	10.6	106	80-120	
Lithium	mg/L	1	1.0	102	80-120	1d

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466321 3466322

Parameter	Units	50355338001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.022J	1	1	1.0	0.99	98	97	75-125	2	20	
Calcium	mg/L	51.2	10	10	63.3	62.3	121	111	75-125	2	20	
Lithium	mg/L	ND	1	1	1.0	1.0	102	100	75-125	2	20	1d

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756857
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004, 50356097001, 50356097002, 50356097003, 50356097004

METHOD BLANK: 3468783 Matrix: Water
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004, 50356097001, 50356097002, 50356097003, 50356097004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.011	10/20/23 15:20	
Calcium	mg/L	ND	1.0	0.057	10/20/23 15:20	
Lithium	mg/L	ND	0.020	0.0051	10/20/23 15:20	

LABORATORY CONTROL SAMPLE: 3468784

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	103	80-120	
Calcium	mg/L	10	10.4	104	80-120	
Lithium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3468785 3468786

Parameter	Units	50356097003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.033J	1	1	1.1	1.0	104	101	75-125	2	20	
Calcium	mg/L	22.7	10	10	32.2	31.6	95	89	75-125	2	20	
Lithium	mg/L	ND	1	1	1.0	1.0	103	101	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757919
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356256001, 50356256002, 50356256003

METHOD BLANK: 3473335 Matrix: Water
Associated Lab Samples: 50356256001, 50356256002, 50356256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.011	10/25/23 13:20	
Calcium	mg/L	ND	1.0	0.057	10/25/23 13:20	
Lithium	mg/L	ND	0.020	0.0051	10/25/23 13:20	

LABORATORY CONTROL SAMPLE: 3473336

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.94	94	80-120	
Calcium	mg/L	10	9.9	99	80-120	
Lithium	mg/L	1	0.98	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3473337 3473338

Parameter	Units	50356232001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.080J	1	1	1.1	1.0	100	95	75-125	5	20	
Calcium	mg/L	47.9	10	10	58.6	55.5	107	75	75-125	6	20	
Lithium	mg/L	ND	1	1	1.0	0.96	102	96	75-125	6	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 755756
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50355350001

METHOD BLANK: 3463489 Matrix: Water
Associated Lab Samples: 50355350001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000044	10/06/23 04:19	
Arsenic	mg/L	ND	0.0010	0.000064	10/06/23 04:19	
Barium	mg/L	ND	0.0010	0.000067	10/06/23 04:19	
Beryllium	mg/L	ND	0.00020	0.000026	10/06/23 04:19	
Cadmium	mg/L	ND	0.00020	0.000016	10/06/23 04:19	
Chromium	mg/L	ND	0.0020	0.00015	10/06/23 04:19	
Cobalt	mg/L	ND	0.0010	0.000024	10/06/23 04:19	
Lead	mg/L	ND	0.0010	0.000019	10/06/23 04:19	
Molybdenum	mg/L	ND	0.0010	0.000031	10/06/23 04:19	
Selenium	mg/L	ND	0.0010	0.00023	10/06/23 04:19	
Thallium	mg/L	ND	0.0010	0.000042	10/06/23 04:19	

LABORATORY CONTROL SAMPLE: 3463490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	102	80-120	
Arsenic	mg/L	0.04	0.039	97	80-120	
Barium	mg/L	0.04	0.038	95	80-120	
Beryllium	mg/L	0.04	0.041	103	80-120	
Cadmium	mg/L	0.04	0.040	100	80-120	
Chromium	mg/L	0.04	0.041	103	80-120	
Cobalt	mg/L	0.04	0.039	98	80-120	
Lead	mg/L	0.04	0.041	103	80-120	
Molybdenum	mg/L	0.04	0.041	103	80-120	
Selenium	mg/L	0.04	0.038	96	80-120	
Thallium	mg/L	0.04	0.041	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3463491 3463492

Parameter	Units	50355347001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00055J	0.04	0.04	0.043	0.044	107	108	75-125	1	20	
Arsenic	mg/L	0.0023	0.04	0.04	0.041	0.043	98	102	75-125	4	20	
Barium	mg/L	0.076	0.04	0.04	0.12	0.12	101	105	75-125	1	20	
Beryllium	mg/L	ND	0.04	0.04	0.043	0.044	107	110	75-125	3	20	
Cadmium	mg/L	0.00017J	0.04	0.04	0.041	0.041	102	102	75-125	0	20	
Chromium	mg/L	0.00032J	0.04	0.04	0.041	0.044	103	109	75-125	6	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3463491 3463492

Parameter	Units	50355347001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.0099	0.04	0.04	0.048	0.049	96	97	75-125	1	20	
Lead	mg/L	0.00012J	0.04	0.04	0.042	0.042	104	105	75-125	1	20	
Molybdenum	mg/L	0.0020	0.04	0.04	0.044	0.045	105	107	75-125	2	20	
Selenium	mg/L	0.00060J	0.04	0.04	0.038	0.039	92	97	75-125	5	20	
Thallium	mg/L	0.00012J	0.04	0.04	0.042	0.042	104	106	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756313
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355500001, 50355500002, 50355500003

METHOD BLANK: 3466382 Matrix: Water
Associated Lab Samples: 50355500001, 50355500002, 50355500003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000080	10/16/23 08:04	
Arsenic	mg/L	ND	0.0010	0.00012	10/16/23 08:04	
Barium	mg/L	ND	0.0010	0.000065	10/16/23 08:04	
Beryllium	mg/L	ND	0.00020	0.000026	10/16/23 08:04	
Cadmium	mg/L	ND	0.00020	0.000016	10/16/23 08:04	
Chromium	mg/L	ND	0.0020	0.00018	10/16/23 08:04	
Cobalt	mg/L	ND	0.0010	0.000071	10/16/23 08:04	
Lead	mg/L	ND	0.0010	0.000068	10/16/23 08:04	
Molybdenum	mg/L	ND	0.0010	0.000074	10/16/23 08:04	
Selenium	mg/L	ND	0.0010	0.00019	10/16/23 08:04	
Thallium	mg/L	ND	0.0010	0.000060	10/16/23 08:04	

LABORATORY CONTROL SAMPLE: 3466383

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.042	104	80-120	
Arsenic	mg/L	0.04	0.037	94	80-120	
Barium	mg/L	0.04	0.038	95	80-120	
Beryllium	mg/L	0.04	0.037	92	80-120	
Cadmium	mg/L	0.04	0.041	101	80-120	
Chromium	mg/L	0.04	0.041	101	80-120	
Cobalt	mg/L	0.04	0.040	99	80-120	
Lead	mg/L	0.04	0.041	103	80-120	
Molybdenum	mg/L	0.04	0.041	102	80-120	
Selenium	mg/L	0.04	0.038	94	80-120	
Thallium	mg/L	0.04	0.041	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466384 3466385

Parameter	Units	50355756001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.0011J	0.04	0.04	0.040	0.040	97	97	75-125	0	20	
Arsenic	mg/L	0.0022	0.04	0.04	0.040	0.040	95	94	75-125	1	20	
Barium	mg/L	0.41	0.04	0.04	0.48	0.48	186	173	75-125	1	20	P6
Beryllium	mg/L	ND	0.04	0.04	0.039	0.039	98	99	75-125	0	20	
Cadmium	mg/L	0.000062J	0.04	0.04	0.036	0.035	90	87	75-125	3	20	
Chromium	mg/L	0.00026J	0.04	0.04	0.034	0.034	85	85	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3466384 3466385

Parameter	Units	50355756001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.00071J	0.04	0.04	0.037	0.037	91	90	75-125	1	20	
Lead	mg/L	ND	0.04	0.04	0.037	0.038	93	94	75-125	1	20	
Molybdenum	mg/L	0.50	0.04	0.04	0.53	0.52	83	47	75-125	3	20	P6
Selenium	mg/L	0.0016	0.04	0.04	0.045	0.044	108	107	75-125	1	20	
Thallium	mg/L	ND	0.04	0.04	0.039	0.039	96	97	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756903
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004, 50356097001, 50356097002, 50356097003, 50356097004

METHOD BLANK: 3469006 Matrix: Water
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004, 50356097001, 50356097002, 50356097003, 50356097004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.000080	10/13/23 07:59	
Arsenic	mg/L	ND	0.0010	0.00012	10/13/23 07:59	
Barium	mg/L	ND	0.0010	0.000065	10/13/23 07:59	
Beryllium	mg/L	ND	0.00020	0.000026	10/13/23 07:59	
Cadmium	mg/L	ND	0.00020	0.000016	10/13/23 07:59	
Chromium	mg/L	ND	0.0020	0.00018	10/13/23 07:59	
Cobalt	mg/L	ND	0.0010	0.000071	10/13/23 07:59	
Lead	mg/L	ND	0.0010	0.000068	10/13/23 07:59	
Molybdenum	mg/L	ND	0.0010	0.000074	10/13/23 07:59	
Selenium	mg/L	ND	0.0010	0.00019	10/13/23 07:59	
Thallium	mg/L	ND	0.0010	0.000060	10/13/23 07:59	

LABORATORY CONTROL SAMPLE: 3469007

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.040	101	80-120	
Arsenic	mg/L	0.04	0.037	92	80-120	
Barium	mg/L	0.04	0.038	96	80-120	
Beryllium	mg/L	0.04	0.038	95	80-120	
Cadmium	mg/L	0.04	0.040	101	80-120	
Chromium	mg/L	0.04	0.040	100	80-120	
Cobalt	mg/L	0.04	0.040	100	80-120	
Lead	mg/L	0.04	0.041	102	80-120	
Molybdenum	mg/L	0.04	0.040	100	80-120	
Selenium	mg/L	0.04	0.039	97	80-120	
Thallium	mg/L	0.04	0.041	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3469008 3469009

Parameter	Units	50356097003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.040	0.041	101	103	75-125	2	20	
Arsenic	mg/L	0.00022J	0.04	0.04	0.038	0.038	94	94	75-125	0	20	
Barium	mg/L	0.0056	0.04	0.04	0.044	0.044	97	96	75-125	1	20	
Beryllium	mg/L	ND	0.04	0.04	0.038	0.039	96	98	75-125	2	20	
Cadmium	mg/L	ND	0.04	0.04	0.040	0.041	101	102	75-125	2	20	

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(317)228-3100

QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3469008 3469009

Parameter	Units	50356097003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00090J	0.04	0.04	0.041	0.041	100	101	75-125	1	20	
Cobalt	mg/L	0.000097J	0.04	0.04	0.038	0.039	96	96	75-125	1	20	
Lead	mg/L	0.00016J	0.04	0.04	0.041	0.041	101	102	75-125	1	20	
Molybdenum	mg/L	0.00060J	0.04	0.04	0.041	0.042	100	103	75-125	3	20	
Selenium	mg/L	ND	0.04	0.04	0.038	0.039	95	96	75-125	2	20	
Thallium	mg/L	ND	0.04	0.04	0.040	0.041	100	102	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757467
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356256001, 50356256002, 50356256003

METHOD BLANK: 3471819 Matrix: Water
Associated Lab Samples: 50356256001, 50356256002, 50356256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.00013	10/25/23 18:26	
Arsenic	mg/L	ND	0.0010	0.00010	10/25/23 18:26	
Barium	mg/L	ND	0.0010	0.00014	10/25/23 18:26	
Beryllium	mg/L	ND	0.00020	0.000026	10/25/23 18:26	
Cadmium	mg/L	ND	0.00020	0.000054	10/25/23 18:26	
Chromium	mg/L	ND	0.0020	0.00020	10/25/23 18:26	
Cobalt	mg/L	ND	0.0010	0.000082	10/25/23 18:26	
Lead	mg/L	ND	0.0010	0.000080	10/25/23 18:26	
Molybdenum	mg/L	ND	0.0010	0.000072	10/25/23 18:26	
Selenium	mg/L	ND	0.0010	0.00044	10/25/23 18:26	
Thallium	mg/L	ND	0.0010	0.000072	10/25/23 18:26	

LABORATORY CONTROL SAMPLE: 3471820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	103	80-120	
Arsenic	mg/L	0.04	0.039	98	80-120	
Barium	mg/L	0.04	0.039	97	80-120	
Beryllium	mg/L	0.04	0.039	96	80-120	
Cadmium	mg/L	0.04	0.038	94	80-120	
Chromium	mg/L	0.04	0.040	101	80-120	
Cobalt	mg/L	0.04	0.040	101	80-120	
Lead	mg/L	0.04	0.039	97	80-120	
Molybdenum	mg/L	0.04	0.040	100	80-120	
Selenium	mg/L	0.04	0.040	99	80-120	
Thallium	mg/L	0.04	0.040	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3471821 3471822

Parameter	Units	50356256002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.041	0.040	101	100	75-125	1	20	
Arsenic	mg/L	0.0056	0.04	0.04	0.041	0.042	88	91	75-125	3	20	
Barium	mg/L	0.035	0.04	0.04	0.072	0.073	91	94	75-125	2	20	
Beryllium	mg/L	0.00063	0.04	0.04	0.039	0.039	96	97	75-125	1	20	
Cadmium	mg/L	0.000082J	0.04	0.04	0.037	0.037	91	93	75-125	2	20	
Chromium	mg/L	0.00089J	0.04	0.04	0.040	0.040	98	98	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3471821 3471822

Parameter	Units	50356256002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.012	0.04	0.04	0.051	0.051	97	95	75-125	1	20	
Lead	mg/L	0.00031J	0.04	0.04	0.038	0.039	94	96	75-125	2	20	
Molybdenum	mg/L	0.00070J	0.04	0.04	0.037	0.037	92	91	75-125	1	20	
Selenium	mg/L	0.0023	0.04	0.04	0.038	0.036	88	85	75-125	3	20	
Thallium	mg/L	ND	0.04	0.04	0.038	0.039	96	98	75-125	2	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756531
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355350001

METHOD BLANK: 3467065 Matrix: Water
Associated Lab Samples: 50355350001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/10/23 15:17	

LABORATORY CONTROL SAMPLE: 3467066

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	303	101	80-120	

SAMPLE DUPLICATE: 3467067

Parameter	Units	50355337001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	10900	10600	2	10	

SAMPLE DUPLICATE: 3467068

Parameter	Units	50355400003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	394	409	4	10	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756708
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355500001, 50355500002, 50355500003

METHOD BLANK: 3467873 Matrix: Water
Associated Lab Samples: 50355500001, 50355500002, 50355500003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/11/23 15:38	

LABORATORY CONTROL SAMPLE: 3467874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3467875

Parameter	Units	50355432007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	749	749	0	10	

SAMPLE DUPLICATE: 3467876

Parameter	Units	50355756003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	5420	5290	2	10	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 756998
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004

METHOD BLANK: 3469339 Matrix: Water
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/12/23 13:32	

LABORATORY CONTROL SAMPLE: 3469340

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	282	94	80-120	

SAMPLE DUPLICATE: 3469341

Parameter	Units	50355871008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	553	561	1	10	

SAMPLE DUPLICATE: 3469342

Parameter	Units	50355933004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	343	350	2	10	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757508
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356097001, 50356097002, 50356097003, 50356097004

METHOD BLANK: 3471906 Matrix: Water
Associated Lab Samples: 50356097001, 50356097002, 50356097003, 50356097004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/16/23 12:02	

LABORATORY CONTROL SAMPLE: 3471907

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	261	87	80-120	

SAMPLE DUPLICATE: 3471908

Parameter	Units	50356097003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	90	90	0	10	

SAMPLE DUPLICATE: 3471909

Parameter	Units	50356478009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1760	1760	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757689
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356256001, 50356256002

METHOD BLANK: 3472396 Matrix: Water
Associated Lab Samples: 50356256001, 50356256002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/17/23 11:58	

LABORATORY CONTROL SAMPLE: 3472397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	282	94	80-120	

SAMPLE DUPLICATE: 3472398

Parameter	Units	50356322003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	520	507	3	10	

SAMPLE DUPLICATE: 3472399

Parameter	Units	50356314005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	359	385	7	10	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757912
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356256003

METHOD BLANK: 3473315 Matrix: Water
Associated Lab Samples: 50356256003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/18/23 11:36	

LABORATORY CONTROL SAMPLE: 3473316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	275	92	80-120	

SAMPLE DUPLICATE: 3473317

Parameter	Units	50356256003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	129	135	5	10	

SAMPLE DUPLICATE: 3473318

Parameter	Units	50356278002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	364	357	2	10	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 757828
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355350001, 50355500001, 50355500002

SAMPLE DUPLICATE: 3472959

Parameter	Units	50355430002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	7.9	1	2	H3

SAMPLE DUPLICATE: 3472960

Parameter	Units	50355500002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.4	7.3	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 758145
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50355500003

SAMPLE DUPLICATE: 3474414

Parameter	Units	50355428001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.9	7.9	0	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 758356
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50355927001, 50355927002, 50355927003, 50355927004

SAMPLE DUPLICATE: 3475506

Parameter	Units	50355885001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.3	8.3	0	2	H3

SAMPLE DUPLICATE: 3475507

Parameter	Units	50356016004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.4	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 758818
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356097001, 50356097002, 50356097003, 50356097004

SAMPLE DUPLICATE: 3477531

Parameter	Units	50355871005 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.0	1	2	H3

SAMPLE DUPLICATE: 3477532

Parameter	Units	50356097003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.5	7.6	1	2	H3

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

QC Batch: 758916
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50356256001, 50356256002, 50356256003

SAMPLE DUPLICATE: 3477993

Parameter	Units	50356191006 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.3	7.2	1	2	H3

SAMPLE DUPLICATE: 3477994

Parameter	Units	50356305004 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.7	7.7	0	2	H3

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QUALIFIERS

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1d	The closing CRDL recovery exceeded acceptance limits (18% recovery). MTM 10/17/23
2d	The opening CRDL recovery exceeded acceptance limits (134.45% recovery).
H3	Sample was received or analysis requested beyond the recognized method holding time.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
PL	The minimum mass of dried residue of 2.5 mg could not be obtained using the routine sample volume of 100 mL.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355350001	**GAMW-46-100323**	EPA 9056	757163		
50355500001	**GAMW-46B-100423**	EPA 9056	757364		
50355500002	**GAMW-42-100423**	EPA 9056	757364		
50355500003	**GAMW-42B-100423**	EPA 9056	757364		
50355927001	**GAMW-42C-100923**	EPA 9056	757745		
50355927002	**GAMW-43-100923**	EPA 9056	757745		
50355927003	**GAMW-43B-100923**	EPA 9056	757745		
50355927004	**FD-07-100923**	EPA 9056	757745		
50356097001	**GAMW-44-101023**	EPA 9056	757745		
50356097002	**GAMW-44B-101023**	EPA 9056	757745		
50356097003	**GAMW-57-101023**	EPA 9056	757745		
50356097004	**FB-07-101023**	EPA 9056	757745		
50356256001	**GAMW-57B-101123**	EPA 9056	758028		
50356256002	**GAMW-58-101123**	EPA 9056	758028		
50356256003	**GAMW-58B-101123**	EPA 9056	758028		
50355350001	**GAMW-46-100323**	EPA 3010	756292	EPA 6010	757750
50355500001	**GAMW-46B-100423**	EPA 3010	756292	EPA 6010	757750
50355500002	**GAMW-42-100423**	EPA 3010	756292	EPA 6010	757750
50355500003	**GAMW-42B-100423**	EPA 3010	756292	EPA 6010	757750
50355927001	**GAMW-42C-100923**	EPA 3010	756857	EPA 6010	758424
50355927002	**GAMW-43-100923**	EPA 3010	756857	EPA 6010	758424
50355927003	**GAMW-43B-100923**	EPA 3010	756857	EPA 6010	758424
50355927004	**FD-07-100923**	EPA 3010	756857	EPA 6010	758424
50356097001	**GAMW-44-101023**	EPA 3010	756857	EPA 6010	758424
50356097002	**GAMW-44B-101023**	EPA 3010	756857	EPA 6010	758424
50356097003	**GAMW-57-101023**	EPA 3010	756857	EPA 6010	758424
50356097004	**FB-07-101023**	EPA 3010	756857	EPA 6010	758424
50356256001	**GAMW-57B-101123**	EPA 3010	757919	EPA 6010	759058
50356256002	**GAMW-58-101123**	EPA 3010	757919	EPA 6010	759058
50356256003	**GAMW-58B-101123**	EPA 3010	757919	EPA 6010	759058
50355350001	**GAMW-46-100323**	EPA 200.2	755756	EPA 6020	755948
50355500001	**GAMW-46B-100423**	EPA 200.2	756313	EPA 6020	756660
50355500002	**GAMW-42-100423**	EPA 200.2	756313	EPA 6020	756660
50355500003	**GAMW-42B-100423**	EPA 200.2	756313	EPA 6020	756660
50355927001	**GAMW-42C-100923**	EPA 200.2	756903	EPA 6020	757125
50355927002	**GAMW-43-100923**	EPA 200.2	756903	EPA 6020	757125
50355927003	**GAMW-43B-100923**	EPA 200.2	756903	EPA 6020	757125
50355927004	**FD-07-100923**	EPA 200.2	756903	EPA 6020	757125
50356097001	**GAMW-44-101023**	EPA 200.2	756903	EPA 6020	757125
50356097002	**GAMW-44B-101023**	EPA 200.2	756903	EPA 6020	757125
50356097003	**GAMW-57-101023**	EPA 200.2	756903	EPA 6020	757125
50356097004	**FB-07-101023**	EPA 200.2	756903	EPA 6020	757125
50356256001	**GAMW-57B-101123**	EPA 200.2	757467	EPA 6020	757812
50356256002	**GAMW-58-101123**	EPA 200.2	757467	EPA 6020	757812

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50356256003	**GAMW-58B-101123**	EPA 200.2	757467	EPA 6020	757812
50355350001	**GAMW-46-100323**	EPA 7470	756358	EPA 7470	756456
50355500001	**GAMW-46B-100423**	EPA 7470	756360	EPA 7470	756457
50355500002	**GAMW-42-100423**	EPA 7470	756360	EPA 7470	756457
50355500003	**GAMW-42B-100423**	EPA 7470	756360	EPA 7470	756457
50355927001	**GAMW-42C-100923**	EPA 7470	756688	EPA 7470	757654
50355927002	**GAMW-43-100923**	EPA 7470	756688	EPA 7470	757654
50355927003	**GAMW-43B-100923**	EPA 7470	756688	EPA 7470	757654
50355927004	**FD-07-100923**	EPA 7470	756688	EPA 7470	757654
50356097001	**GAMW-44-101023**	EPA 7470	757427	EPA 7470	757588
50356097002	**GAMW-44B-101023**	EPA 7470	757427	EPA 7470	757588
50356097003	**GAMW-57-101023**	EPA 7470	757427	EPA 7470	757588
50356097004	**FB-07-101023**	EPA 7470	757427	EPA 7470	757588
50356256001	**GAMW-57B-101123**	EPA 7470	757427	EPA 7470	757588
50356256002	**GAMW-58-101123**	EPA 7470	757427	EPA 7470	757588
50356256003	**GAMW-58B-101123**	EPA 7470	757427	EPA 7470	757588
50355350001	**GAMW-46-100323**	SM 2540C	756531		
50355500001	**GAMW-46B-100423**	SM 2540C	756708		
50355500002	**GAMW-42-100423**	SM 2540C	756708		
50355500003	**GAMW-42B-100423**	SM 2540C	756708		
50355927001	**GAMW-42C-100923**	SM 2540C	756998		
50355927002	**GAMW-43-100923**	SM 2540C	756998		
50355927003	**GAMW-43B-100923**	SM 2540C	756998		
50355927004	**FD-07-100923**	SM 2540C	756998		
50356097001	**GAMW-44-101023**	SM 2540C	757508		
50356097002	**GAMW-44B-101023**	SM 2540C	757508		
50356097003	**GAMW-57-101023**	SM 2540C	757508		
50356097004	**FB-07-101023**	SM 2540C	757508		
50356256001	**GAMW-57B-101123**	SM 2540C	757689		
50356256002	**GAMW-58-101123**	SM 2540C	757689		
50356256003	**GAMW-58B-101123**	SM 2540C	757912		
50355350001	**GAMW-46-100323**	SM 4500-H+B	757828		
50355500001	**GAMW-46B-100423**	SM 4500-H+B	757828		
50355500002	**GAMW-42-100423**	SM 4500-H+B	757828		
50355500003	**GAMW-42B-100423**	SM 4500-H+B	758145		
50355927001	**GAMW-42C-100923**	SM 4500-H+B	758356		
50355927002	**GAMW-43-100923**	SM 4500-H+B	758356		
50355927003	**GAMW-43B-100923**	SM 4500-H+B	758356		
50355927004	**FD-07-100923**	SM 4500-H+B	758356		
50356097001	**GAMW-44-101023**	SM 4500-H+B	758818		
50356097002	**GAMW-44B-101023**	SM 4500-H+B	758818		
50356097003	**GAMW-57-101023**	SM 4500-H+B	758818		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Boundary Wells
Pace Project No.: 50355350

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50356097004	**FB-07-101023**	SM 4500-H+B	758818		
50356256001	**GAMW-57B-101123**	SM 4500-H+B	758916		
50356256002	**GAMW-58-101123**	SM 4500-H+B	758916		
50356256003	**GAMW-58B-101123**	SM 4500-H+B	758916		

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CHAIN-OF-CUSTODY / Analy

The Chain-of-Custody is a LEGAL DOCUMENT

WO# : 50355350

50355350

Page: Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177	
Address:	10 Al Paul Lane, Suite 103	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource	
	Merrimack, NH 03054		Sarah Gilles	Address:		Regulatory Agency
Email:	thomas.haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:		
Phone:	(603)668-0880 Fax:	Project Name:	RMSGS Boundary Wells	Pace Project Manager:	tina.sayer@pacelabs.com,	State / Location
Requested Due Date:	10 day TAT	Project #:		Pace Profile #:	9045-1	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
																		Y/N				
1	GAMW-46-100323	WT	G			10/3/23	1325		3	2		1						X	X	X	X	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010;	WSP	10/3/23	1630	Fedex						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	Fedex	10/4/23	0920		10/4/23	0920	2.3	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	DATE Signed:	10/3/23				

F-IN-Q-290-rev.23, 26Jun2023

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 10/04/23 1008 LR

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E (F) G H
4. **Cooler Temperature(s):** 2.4/2.3 | | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 **of** 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1	1								WT	/			
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

50355500

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	10 Al Paul Lane, Suite 103	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrimack, NH 03054		Sarah Gilles	Address:	
Email:	thomas.haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)668-0880 Fax:	Project Name:	RMSGS Boundary Wells	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	21404789.011	Pace Profile #:	9045-1

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	50355500
1	GAMW-46B-100423	WT	G			10/4/23	1045		3	2		1						X	X	X	X			001
2	GAMW-42-100423	WT	G			10/4/23	1220		3	2		1						X	X	X	X			002
3	GAMW-42B-100423	WT	G			10/4/23	1355		3	2		1						X	X	X	X			003
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010;	WSP	10/4/23	1600	FedEx						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FedEx	10.5.23	0920	Mark Skinkel / PACE	10.5.23	0920	0.5	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 10/4/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 10.05.2023 1020

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E (F) G H

4. **Cooler Temperature(s):** 0.6 / 0.5 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU	BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																		1	1	1								SW	✓			
2																		1	1	1												
3																		1	1	1												
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50355927

50355927

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N-OF-CUSTODY / Analytical Request Document

n-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	10 Al Paul Lane, Suite 103	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrimack, NH 03054		Sarah Gilles	Address:	
Email:	thomas.haskins@wsp.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)668-0880 Fax:	Project Name:	RMSGS Boundary Wells	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	10 day TAT	Project #:	31404789.011	Pace Profile #:	9045-1

Regulatory Agency	
State / Location	IN

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	
1	GAMW-42C-100923	WT	G			10/9/23	1155		3	2		1							X	X	X	X		001
2	GAMW-43-100923	WT	G			10/9/23	1310		3	2		1							X	X	X	X		002
3	GAMW-43B-100923	WT	G			10/9/23	1405		3	2		1							X	X	X	X		003
4	FD-07-100923	WT	G			10/9/23	1200		3	2		1							X	X	X	X		004
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010;	WSP	10/9/23	1650	Fedex						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	Fedex	10/10/23	0925		10/10/23	0925	1-6	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:		TEMP in C	Received on Ice (Y/N)
SIGNATURE of SAMPLER:	DATE Signed: 10/9/23	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 10/10/23 1128 CL

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F (G) H

4. **Cooler Temperature(s):** 1.6/1.6 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	+		
Short Hold Time Analysis (48 hours or less)? Analysis:						
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC								OTHER								
COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	1	1												
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 10 Al Paul Lane, Suite 103	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource	
Merrimack, NH 03054	Sarah Gilles	Address:	Regulatory Agency
Email: thomas.haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)668-0880 Fax:	Project Name: RMSGS Boundary Wells	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-1	IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)	50356097
1	GAMW-44 - 101023	WT	G			10/10/23	1045		3	2		1						X	X	X	X			001
2	GAMW-44B - 101023	WT	G			10/10/23	1145		3	2		1						X	X	X	X			002
3	GAMW-57 - 101023	WT	G			10/10/23	1310		3	2		1						X	X	X	X			MS-04/MSD-04 003
4	FB-07 - 101023	WT	G			10/10/23	1400		3	2		1						X	X	X	X			004
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**B,Ca,Li by 6010;	WSP	10/10/23	1630	FedEx						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FedEx	10/11/23	920		10/11/23	920	1.2	Y	Y	Y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: 10/10/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: TW 10/11/23 1300

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B (C) D E F G H

4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.7/1.7	1.2/1.2		

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2)** **H2SO4 (<2)** **NaOH (>10)** **NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
				Present	Absent	No VOA Vials Sent
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER							
			MeOH (only)																												
			SBS																												
			DI			VOA VIAL HS >6mm																										
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H			VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																		1	1	1									WT	✓			
2																		1	1	1													
3																		3	3	3													
4																		1	1	1													
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

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CHAIN-OF-CUSTODY / Analytic

The Chain-of-Custody is a LEGAL DOCUMENT. A

WO# : 50356256

50356256

Page Of

Section A	Section B	Section C	
Required Client Information:	Required Project Information:	Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loev	
Address: 10 Al Paul Lane, Suite 103	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource	
Merrimack, NH 03054	Sarah Gilles	Address:	Regulatory Agency
Email: thomas.haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)668-0880 Fax:	Project Name: RMSGS Boundary Wells	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31404789.011	Pace Profile #: 9045-1	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
1	GAMW-57B - 101123	WT	G			10/11/23	1005		3	2		1							X	X	X	X	
2	GAMW-58 - 101123	WT	G			10/11/23	1130		3	2		1							X	X	X	X	
3	GAMW-58B 101123	WT	G			10/11/23	1230		3	2		1							X	X	X	X	
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**B,Ca,Li by 6010;	WSP	10/11/23	1430	FedEx			
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FedEx	10.12.23	0925	Nick Stiles / PACE	10.12.23	0926	1.3 Y Y Y
Hg by 7470							

SAMPLER NAME AND SIGNATURE			TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:						
SIGNATURE of SAMPLER:	DATE Signed: 10/11/23					

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 10.12.2023 1117

1. **Courier:** [X] FED EX [ ] UPS [ ] CLIENT [ ] PACE [ ] NOW/JETT [ ] OTHER _____

2. **Custody Seal on Cooler/Box Present:** [X] Yes [ ] No

(If yes)Seals Intact: [X] Yes [ ] No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G (H)

4. **Cooler Temperature(s):** 1.3 / 1.3 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** [X] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other _____

6. **Ice Type:** [X] Wet [ ] Blue [ ] None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** [ ] Yes [ ] No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** ~~Circle:~~ **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/ZnAc >9
1																	1	1	1								WT	✓			
2																	1	1	1								1	1			
3																	1	1	1								1	1			
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

November 06, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory between October 04, 2023 and October 12, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3127
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

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CERTIFICATIONS

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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SAMPLE SUMMARY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50355352001	**GAMW-46-100323**	Water	10/03/23 13:25	10/04/23 09:20
50355502001	**GAMW-46B-100423**	Water	10/04/23 10:45	10/05/23 09:20
50355502002	**GAMW-42-100423**	Water	10/04/23 12:20	10/05/23 09:20
50355502003	**GAMW-42B-100423**	Water	10/04/23 13:55	10/05/23 09:20
50355929001	**GAMW-42C-100923**	Water	10/09/23 11:55	10/10/23 09:25
50355929002	**GAMW-43-100923**	Water	10/09/23 13:10	10/10/23 09:25
50355929003	**GAMW-43B-100923**	Water	10/09/23 14:05	10/10/23 09:25
50355929004	**FD-07-100923**	Water	10/09/23 12:00	10/10/23 09:25
50356093001	**GAMW-44-101023**	Water	10/10/23 10:45	10/11/23 09:20
50356259002	**GAMW-58-101123**	Water	10/11/23 11:30	10/12/23 09:25
50356259003	**GAMW-58B-101123**	Water	10/11/23 12:30	10/12/23 09:25
50356093002	**GAMW-44B-101023**	Water	10/10/23 11:45	10/11/23 09:20
50356093003	**GAMW-57-101023**	Water	10/10/23 13:10	10/11/23 09:20
50356093004	**GAMW-57-101023 MS**	Water	10/10/23 13:10	10/11/23 09:20
50356093005	**GAMW-57-101023 MSD**	Water	10/10/23 13:10	10/11/23 09:20
50356093006	**FB-07-101023**	Water	10/10/23 14:00	10/11/23 09:20
50356259001	**GAMW-57B-101123**	Water	10/11/23 10:05	10/12/23 09:25

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SAMPLE ANALYTE COUNT

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50355352001	**GAMW-46-100323**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355502001	**GAMW-46B-100423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355502002	**GAMW-42-100423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355502003	**GAMW-42B-100423**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355929001	**GAMW-42C-100923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355929002	**GAMW-43-100923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355929003	**GAMW-43B-100923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50355929004	**FD-07-100923**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50356093001	**GAMW-44-101023**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50356259002	**GAMW-58-101123**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50356259003	**GAMW-58B-101123**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50356093002	**GAMW-44B-101023**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50356093003	**GAMW-57-101023**	EPA 903.1	LL1	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50356093004	**GAMW-57-101023 MS**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50356093005	**GAMW-57-101023 MSD**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
50356093006	**FB-07-101023**	EPA 903.1	LL1	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
50356259001	**GAMW-57B-101123**	EPA 903.1	MAR1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355352001	**GAMW-46-100323**					
EPA 903.1	Radium-226	-0.126 ± 0.523 (1.10) C:NA T:93%	pCi/L		10/19/23 13:47	
EPA 904.0	Radium-228	0.261 ± 0.406 (0.879) C:82% T:86%	pCi/L		10/17/23 12:30	
Total Radium Calculation	Total Radium	0.261 ± 0.929 (1.98)	pCi/L		10/20/23 15:54	
50355502001	**GAMW-46B-100423**					
EPA 903.1	Radium-226	0.285 ± 0.619 (1.14) C:NA T:89%	pCi/L		10/20/23 13:01	
EPA 904.0	Radium-228	0.446 ± 0.407 (0.825) C:72% T:80%	pCi/L		10/19/23 15:34	
Total Radium Calculation	Total Radium	0.731 ± 1.03 (1.97)	pCi/L		10/24/23 08:04	
50355502002	**GAMW-42-100423**					
EPA 903.1	Radium-226	0.157 ± 0.488 (0.946) C:NA T:93%	pCi/L		10/20/23 13:01	
EPA 904.0	Radium-228	0.0829 ± 0.387 (0.884) C:75% T:79%	pCi/L		10/19/23 15:34	
Total Radium Calculation	Total Radium	0.240 ± 0.875 (1.83)	pCi/L		10/24/23 08:04	
50355502003	**GAMW-42B-100423**					
EPA 903.1	Radium-226	0.154 ± 0.567 (1.09) C:NA T:94%	pCi/L		10/20/23 13:01	
EPA 904.0	Radium-228	0.721 ± 0.506 (0.995) C:77% T:82%	pCi/L		10/19/23 15:34	
Total Radium Calculation	Total Radium	0.875 ± 1.07 (2.09)	pCi/L		10/24/23 08:04	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50355929001	**GAMW-42C-100923**					
EPA 903.1	Radium-226	0.735 ± 0.479 (0.649) C:NA T:87%	pCi/L		11/01/23 12:13	
EPA 904.0	Radium-228	0.148 ± 0.274 (0.601) C:83% T:87%	pCi/L		10/24/23 12:27	
Total Radium Calculation	Total Radium	0.883 ± 0.753 (1.25)	pCi/L		11/02/23 11:28	
50355929002	**GAMW-43-100923**					
EPA 903.1	Radium-226	0.0467 ± 0.509 (0.967) C:NA T:82%	pCi/L		11/01/23 12:13	
EPA 904.0	Radium-228	0.389 ± 0.332 (0.666) C:81% T:82%	pCi/L		10/24/23 12:27	
Total Radium Calculation	Total Radium	0.436 ± 0.841 (1.63)	pCi/L		11/02/23 11:28	
50355929003	**GAMW-43B-100923**					
EPA 903.1	Radium-226	0.737 ± 0.386 (0.380) C:NA T:87%	pCi/L		11/01/23 12:25	
EPA 904.0	Radium-228	0.106 ± 0.322 (0.724) C:76% T:87%	pCi/L		10/24/23 12:27	
Total Radium Calculation	Total Radium	0.843 ± 0.708 (1.10)	pCi/L		11/02/23 11:28	
50355929004	**FD-07-100923**					
EPA 903.1	Radium-226	0.000 ± 0.240 (0.519) C:NA T:84%	pCi/L		11/01/23 12:25	
EPA 904.0	Radium-228	0.0736 ± 0.389 (0.880) C:79% T:84%	pCi/L		10/24/23 12:27	
Total Radium Calculation	Total Radium	0.0736 ± 0.629 (1.40)	pCi/L		11/02/23 11:28	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50356093001	**GAMW-44-101023**					
EPA 903.1	Radium-226	0.130 ± 0.255 (0.466) C:NA T:76%	pCi/L		11/01/23 12:01	
EPA 904.0	Radium-228	0.843 ± 0.439 (0.761) C:74% T:76%	pCi/L		10/24/23 12:28	
Total Radium Calculation	Total Radium	0.973 ± 0.694 (1.23)	pCi/L		11/02/23 11:28	
50356259002	**GAMW-58-101123**					
EPA 903.1	Radium-226	0.124 ± 0.315 (0.584) C:NA T:85%	pCi/L		11/06/23 14:20	
EPA 904.0	Radium-228	0.571 ± 0.379 (0.709) C:79% T:85%	pCi/L		10/25/23 14:35	
Total Radium Calculation	Total Radium	0.695 ± 0.694 (1.29)	pCi/L		11/06/23 16:20	
50356259003	**GAMW-58B-101123**					
EPA 903.1	Radium-226	-0.0888 ± 0.369 (0.774) C:NA T:87%	pCi/L		11/06/23 15:35	
EPA 904.0	Radium-228	0.407 ± 0.341 (0.677) C:79% T:87%	pCi/L		10/25/23 14:35	
Total Radium Calculation	Total Radium	0.407 ± 0.710 (1.45)	pCi/L		11/06/23 16:20	
50356093002	**GAMW-44B-101023**					
EPA 903.1	Radium-226	0.0400 ± 0.304 (0.601) C:NA T:87%	pCi/L		11/01/23 12:01	
EPA 904.0	Radium-228	0.455 ± 0.305 (0.568) C:79% T:87%	pCi/L		10/24/23 12:25	
Total Radium Calculation	Total Radium	0.495 ± 0.609 (1.17)	pCi/L		11/02/23 11:28	

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SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50356093003	**GAMW-57-101023**					
EPA 903.1	Radium-226	0.0440 ± 0.201 (0.409) C:NA T:80%	pCi/L		11/01/23 12:01	
EPA 904.0	Radium-228	0.263 ± 0.294 (0.612) C:83% T:80%	pCi/L		10/24/23 12:25	
Total Radium Calculation	Total Radium	0.307 ± 0.495 (1.02)	pCi/L		11/02/23 11:28	
50356093004	**GAMW-57-101023 MS**					
EPA 903.1	Radium-226	110.64 %REC ± NA (NA) C:NA T:NA	pCi/L		11/01/23 12:01	
EPA 904.0	Radium-228	75.20 %REC ± NA (NA) C:NA T:NA	pCi/L		10/24/23 12:25	
50356093005	**GAMW-57-101023 MSD**					
EPA 903.1	Radium-226	94.75 %REC 15.47RPD ± NA (NA) C:NA T:NA	pCi/L		11/01/23 12:01	
EPA 904.0	Radium-228	76.08 %REC 1.16RPD ± NA (NA) C:NA T:NA	pCi/L		10/24/23 12:26	
50356093006	**FB-07-101023**					
EPA 903.1	Radium-226	0.208 ± 0.272 (0.449) C:NA T:84%	pCi/L		11/01/23 12:01	
EPA 904.0	Radium-228	0.351 ± 0.378 (0.791) C:82% T:84%	pCi/L		10/24/23 12:26	
Total Radium Calculation	Total Radium	0.559 ± 0.650 (1.24)	pCi/L		11/02/23 11:28	
50356259001	**GAMW-57B-101123**					
EPA 903.1	Radium-226	0.0468 ± 0.400 (0.780) C:NA T:84%	pCi/L		11/06/23 14:20	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50356259001	**GAMW-57B-101123**					
EPA 904.0	Radium-228	0.643 ± 0.388 (0.710) C:77% T:84%	pCi/L		10/25/23 14:35	
Total Radium Calculation	Total Radium	0.690 ± 0.788 (1.49)	pCi/L		11/06/23 16:20	

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: NiSource_WSP Golder
Date: November 06, 2023

General Information:
17 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: NiSource_WSP Golder
Date: November 06, 2023

General Information:
17 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: NiSource_WSP Golder
Date: November 06, 2023

General Information:
15 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-46-100323 **Lab ID: 50355352001** Collected: 10/03/23 13:25 Received: 10/04/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.126 ± 0.523 (1.10) C:NA T:93%**	pCi/L	10/19/23 13:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.261 ± 0.406 (0.879) C:82% T:86%**	pCi/L	10/17/23 12:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.261 ± 0.929 (1.98)**	pCi/L	10/20/23 15:54	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-46B-100423 **Lab ID: 50355502001** Collected: 10/04/23 10:45 Received: 10/05/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.285 ± 0.619 (1.14) C:NA T:89%**	pCi/L	10/20/23 13:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.446 ± 0.407 (0.825) C:72% T:80%**	pCi/L	10/19/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.731 ± 1.03 (1.97)**	pCi/L	10/24/23 08:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-42-100423 **Lab ID: 50355502002** Collected: 10/04/23 12:20 Received: 10/05/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.157 ± 0.488 (0.946) C:NA T:93%**	pCi/L	10/20/23 13:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0829 ± 0.387 (0.884) C:75% T:79%**	pCi/L	10/19/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.240 ± 0.875 (1.83)**	pCi/L	10/24/23 08:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-42B-100423 **Lab ID: 50355502003** Collected: 10/04/23 13:55 Received: 10/05/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.154 ± 0.567 (1.09) C:NA T:94%**	pCi/L	10/20/23 13:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.721 ± 0.506 (0.995) C:77% T:82%**	pCi/L	10/19/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.875 ± 1.07 (2.09)**	pCi/L	10/24/23 08:04	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-42C-100923 **Lab ID: 50355929001** Collected: 10/09/23 11:55 Received: 10/10/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.735 ± 0.479 (0.649) C:NA T:87%**	pCi/L	11/01/23 12:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.148 ± 0.274 (0.601) C:83% T:87%**	pCi/L	10/24/23 12:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.883 ± 0.753 (1.25)**	pCi/L	11/02/23 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-43-100923 **Lab ID: 50355929002** Collected: 10/09/23 13:10 Received: 10/10/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0467 ± 0.509 (0.967) C:NA T:82%**	pCi/L	11/01/23 12:13	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.389 ± 0.332 (0.666) C:81% T:82%**	pCi/L	10/24/23 12:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.436 ± 0.841 (1.63)**	pCi/L	11/02/23 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-43B-100923 **Lab ID: 50355929003** Collected: 10/09/23 14:05 Received: 10/10/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.737 ± 0.386 (0.380) C:NA T:87%**	pCi/L	11/01/23 12:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.106 ± 0.322 (0.724) C:76% T:87%**	pCi/L	10/24/23 12:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.843 ± 0.708 (1.10)**	pCi/L	11/02/23 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: FD-07-100923 **Lab ID: 50355929004** Collected: 10/09/23 12:00 Received: 10/10/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.000 ± 0.240 (0.519) C:NA T:84%**	pCi/L	11/01/23 12:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.0736 ± 0.389 (0.880) C:79% T:84%**	pCi/L	10/24/23 12:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0736 ± 0.629 (1.40)**	pCi/L	11/02/23 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-44-101023 **Lab ID: 50356093001** Collected: 10/10/23 10:45 Received: 10/11/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.130 ± 0.255 (0.466) C:NA T:76%**	pCi/L	11/01/23 12:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.843 ± 0.439 (0.761) C:74% T:76%**	pCi/L	10/24/23 12:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.973 ± 0.694 (1.23)**	pCi/L	11/02/23 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-58-101123 **Lab ID: 50356259002** Collected: 10/11/23 11:30 Received: 10/12/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.124 ± 0.315 (0.584) C:NA T:85%**	pCi/L	11/06/23 14:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.571 ± 0.379 (0.709) C:79% T:85%**	pCi/L	10/25/23 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.695 ± 0.694 (1.29)**	pCi/L	11/06/23 16:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-58B-101123 **Lab ID: 50356259003** Collected: 10/11/23 12:30 Received: 10/12/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.0888 ± 0.369 (0.774) C:NA T:87%**	pCi/L	11/06/23 15:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.407 ± 0.341 (0.677) C:79% T:87%**	pCi/L	10/25/23 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.407 ± 0.710 (1.45)**	pCi/L	11/06/23 16:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-44B-101023 **Lab ID: 50356093002** Collected: 10/10/23 11:45 Received: 10/11/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0400 ± 0.304 (0.601) C:NA T:87%**	pCi/L	11/01/23 12:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.455 ± 0.305 (0.568) C:79% T:87%**	pCi/L	10/24/23 12:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.495 ± 0.609 (1.17)**	pCi/L	11/02/23 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-57-101023 **Lab ID: 50356093003** Collected: 10/10/23 13:10 Received: 10/11/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0440 ± 0.201 (0.409) C:NA T:80%**	pCi/L	11/01/23 12:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.263 ± 0.294 (0.612) C:83% T:80%**	pCi/L	10/24/23 12:25	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.307 ± 0.495 (1.02)**	pCi/L	11/02/23 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-57-101023 MS **Lab ID: 50356093004** Collected: 10/10/23 13:10 Received: 10/11/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**110.64 %REC ± NA (NA) C:NA T:NA**	pCi/L	11/01/23 12:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**75.20 %REC ± NA (NA) C:NA T:NA**	pCi/L	10/24/23 12:25	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-57-101023 MSD **Lab ID: 50356093005** Collected: 10/10/23 13:10 Received: 10/11/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**94.75 %REC 15.47RPD ± NA (NA) C:NA T:NA**	pCi/L	11/01/23 12:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**76.08 %REC 1.16RPD ± NA (NA) C:NA T:NA**	pCi/L	10/24/23 12:26	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: FB-07-101023 **Lab ID: 50356093006** Collected: 10/10/23 14:00 Received: 10/11/23 09:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.208 ± 0.272 (0.449) C:NA T:84%**	pCi/L	11/01/23 12:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.351 ± 0.378 (0.791) C:82% T:84%**	pCi/L	10/24/23 12:26	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.559 ± 0.650 (1.24)**	pCi/L	11/02/23 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Sample: GAMW-57B-101123 **Lab ID: 50356259001** Collected: 10/11/23 10:05 Received: 10/12/23 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0468 ± 0.400 (0.780) C:NA T:84%**	pCi/L	11/06/23 14:20	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.643 ± 0.388 (0.710) C:77% T:84%**	pCi/L	10/25/23 14:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.690 ± 0.788 (1.49)**	pCi/L	11/06/23 16:20	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

QC Batch: 621090
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355352001

METHOD BLANK: 3026832 Matrix: Water
Associated Lab Samples: 50355352001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.138 ± 0.375 (0.839) C:69% T:87%	pCi/L	10/17/23 12:30	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

QC Batch: 621088
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355352001

METHOD BLANK: 3026829
Matrix: Water
Associated Lab Samples: 50355352001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0961 ± 0.219 (0.517) C:NA T:91%	pCi/L	10/19/23 13:47	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

QC Batch: 621091
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355502001, 50355502002, 50355502003

METHOD BLANK: 3026834 Matrix: Water
Associated Lab Samples: 50355502001, 50355502002, 50355502003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.309 (0.692) C:NA T:95%	pCi/L	10/20/23 12:47	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

QC Batch: 622684
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355929001, 50355929002, 50355929003, 50355929004, 50356093001, 50356093002, 50356093003, 50356093004, 50356093005, 50356093006

METHOD BLANK: 3035258 Matrix: Water
Associated Lab Samples: 50355929001, 50355929002, 50355929003, 50355929004, 50356093001, 50356093002, 50356093003, 50356093004, 50356093005, 50356093006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.470 ± 0.337 (0.642) C:73% T:84%	pCi/L	10/24/23 12:21	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

QC Batch: 622866
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50356259001, 50356259002, 50356259003

METHOD BLANK: 3036041 Matrix: Water
Associated Lab Samples: 50356259001, 50356259002, 50356259003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.391 ± 0.328 (0.652) C:83% T:83%	pCi/L	10/25/23 11:31	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

QC Batch: 621095
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355502001, 50355502002, 50355502003

METHOD BLANK: 3026842
Matrix: Water
Associated Lab Samples: 50355502001, 50355502002, 50355502003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.258 ± 0.339 (0.721) C:77% T:87%	pCi/L	10/19/23 15:39	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

QC Batch: 622683
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50355929001, 50355929002, 50355929003, 50355929004, 50356093001, 50356093002, 50356093003, 50356093004, 50356093005, 50356093006

METHOD BLANK: 3035256 Matrix: Water
Associated Lab Samples: 50355929001, 50355929002, 50355929003, 50355929004, 50356093001, 50356093002, 50356093003, 50356093004, 50356093005, 50356093006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.185 (0.376) C:NA T:84%	pCi/L	11/01/23 12:01	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

QC Batch: 622864
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50356259001, 50356259002, 50356259003

METHOD BLANK: 3036039 Matrix: Water
Associated Lab Samples: 50356259001, 50356259002, 50356259003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0866 ± 0.240 (0.466) C:NA T:83%	pCi/L	11/06/23 14:04	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50355352001	**GAMW-46-100323**	EPA 903.1	621088		
50355502001	**GAMW-46B-100423**	EPA 903.1	621091		
50355502002	**GAMW-42-100423**	EPA 903.1	621091		
50355502003	**GAMW-42B-100423**	EPA 903.1	621091		
50355929001	**GAMW-42C-100923**	EPA 903.1	622683		
50355929002	**GAMW-43-100923**	EPA 903.1	622683		
50355929003	**GAMW-43B-100923**	EPA 903.1	622683		
50355929004	**FD-07-100923**	EPA 903.1	622683		
50356093001	**GAMW-44-101023**	EPA 903.1	622683		
50356093002	**GAMW-44B-101023**	EPA 903.1	622683		
50356093003	**GAMW-57-101023**	EPA 903.1	622683		
50356093004	**GAMW-57-101023 MS**	EPA 903.1	622683		
50356093005	**GAMW-57-101023 MSD**	EPA 903.1	622683		
50356093006	**FB-07-101023**	EPA 903.1	622683		
50356259001	**GAMW-57B-101123**	EPA 903.1	622864		
50356259002	**GAMW-58-101123**	EPA 903.1	622864		
50356259003	**GAMW-58B-101123**	EPA 903.1	622864		
50355352001	**GAMW-46-100323**	EPA 904.0	621090		
50355502001	**GAMW-46B-100423**	EPA 904.0	621095		
50355502002	**GAMW-42-100423**	EPA 904.0	621095		
50355502003	**GAMW-42B-100423**	EPA 904.0	621095		
50355929001	**GAMW-42C-100923**	EPA 904.0	622684		
50355929002	**GAMW-43-100923**	EPA 904.0	622684		
50355929003	**GAMW-43B-100923**	EPA 904.0	622684		
50355929004	**FD-07-100923**	EPA 904.0	622684		
50356093001	**GAMW-44-101023**	EPA 904.0	622684		
50356093002	**GAMW-44B-101023**	EPA 904.0	622684		
50356093003	**GAMW-57-101023**	EPA 904.0	622684		
50356093004	**GAMW-57-101023 MS**	EPA 904.0	622684		
50356093005	**GAMW-57-101023 MSD**	EPA 904.0	622684		
50356093006	**FB-07-101023**	EPA 904.0	622684		
50356259001	**GAMW-57B-101123**	EPA 904.0	622866		
50356259002	**GAMW-58-101123**	EPA 904.0	622866		
50356259003	**GAMW-58B-101123**	EPA 904.0	622866		
50355352001	**GAMW-46-100323**	Total Radium Calculation	623962		
50355502001	**GAMW-46B-100423**	Total Radium Calculation	624308		
50355502002	**GAMW-42-100423**	Total Radium Calculation	624308		
50355502003	**GAMW-42B-100423**	Total Radium Calculation	624308		
50355929001	**GAMW-42C-100923**	Total Radium Calculation	626736		
50355929002	**GAMW-43-100923**	Total Radium Calculation	626736		
50355929003	**GAMW-43B-100923**	Total Radium Calculation	626736		
50355929004	**FD-07-100923**	Total Radium Calculation	626736		
50356093001	**GAMW-44-101023**	Total Radium Calculation	626736		
50356093002	**GAMW-44B-101023**	Total Radium Calculation	626736		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Boundary Wells
Pace Project No.: 50355352

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50356093003	**GAMW-57-101023**	Total Radium Calculation	626736		
50356093006	**FB-07-101023**	Total Radium Calculation	626736		
50356259001	**GAMW-57B-101123**	Total Radium Calculation	627629		
50356259002	**GAMW-58-101123**	Total Radium Calculation	627629		
50356259003	**GAMW-58B-101123**	Total Radium Calculation	627629		

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WO# : 50355352

50355352

CHAIN-OF-CUSTODY / Ar

The Chain-of-Custody is a LEGAL DOCU

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Page: Of
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 10 Al Paul Lane, Suite 103	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource	
Merrimack, NH 03054	Sarah Gilles	Address:	Regulatory Agency
Email: jim_peace@golder.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)668-0880 Fax	Project Name: RMSGS Boundary Wells	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 21 day TAT	Project #:	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Radium 226+226 (sum)	Residual Chlorine (Y/N)
1	BRMW-46-100323	WT	G			10/3/23	1325		2			2						X	
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**Sub RAD to Pace PA	FedEx	10/3/23	1630	FedEx			
	FedEx	10/4/23	0920		10/4/23	0920	2 3 Y Y Y

SAMPLER NAME AND SIGNATURE

10/3/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 10/04/23 1008 LR

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H

4. **Cooler Temperature(s):** 2.4/2.3 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			X
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC										OTHER					Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
			MeOH (only)																											Red	Yellow	Green	Black
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1																2															
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

60355502

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 10 Al Paul Lane, Suite 103	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource	
Merrimack, NH 03054	Sarah Gilles	Address:	Regulatory Agency
Email: jim_peace@golder.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)668-0880 Fax	Project Name: RMSGS Boundary Wells	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 21 day TAT	Project #: 31404789.011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Radium 226+226 (sum)	Residual Chlorine (Y/N)	
1	GRMW-46B - 100423	WT	G			10/4/23	1045		2			2						X	X		001
2	GRMW-42 - 100423	WT	G			10/4/23	1220		2			2						X	X		002
3	GRMW-42B - 100423	WT	G			10/4/23	1355		2			2						X	X		003
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**Sub RAD to Pace PA	FedEx	10/4/23	1600	FedEx						
	FedEx	10.5.23	0920	Mark Shinkle / PACE	10.5.23	0920	0.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

10/4/23

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 10·05·2023 1020

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E (F) G H

4. **Cooler Temperature(s):** 0.6/0.5 | | | |
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. **Ice Type:** ☒ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			X
Short Hold Time Analysis (48 hours or less)? Analysis:		X				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC										OTHER								
			MeOH (only)																													
			SBS																													
			DI																													
COC Line Item	WGFU	WGKU BG1U	R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2												SL				
2																2																
3																2																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50355929

50355929

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:		Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	Jeff Loewe U126177
Address:	10 Al Paul Lane, Suite 103	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrimack, NH 03054		Sarah Gilles	Address:	
Email:	jim_peace@golder.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)668-0880 Fax	Project Name:	RMSGS Boundary Wells	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	21 day TAT	Project #:	314047789.011	Pace Profile #:	9045-3

Regulatory Agency	
State / Location	IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+226 (sum)	Residual Chlorine (Y/N)	
1	GAMW-42C-100923	WT	G			10/9/23	1155		2			2							X		001
2	GAMW-43-100923	WT	G			10/9/23	1350		2			2							X		002
3	GAMW-43B-100923	WT	G			10/9/23	1405		2			2							X		003
4	FD-07-100923	WT	G			10/9/23	1200		2			2							X		004
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**Sub RAD to Pace PA	WSP	10/9/23	1630	Fedex						
	FedEx	10/10/23	0925		10/10/23	0925	1.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

10/9/23

F-IN-Q-290-rev.23, 26Jun2023

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 10/10/23 1126 LR

1. Courier: ☒FED EX ☐UPS ☐CLIENT ☐PACE ☐NOW/JETT ☐OTHER _____

2. Custody Seal on Cooler/Box Present: ☒ Yes ☐ No

(If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 1.6/1.6 | | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

6. Ice Type: ☒ Wet ☐ Blue ☐ None

7. If temp. is over 6°C or under 0°C, was the PM notified?: ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	~~X~~ LR 10/16		X
Short Hold Time Analysis (48 hours or less)? Analysis:						
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) / SBS / DI / R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix
1																2												WT
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn, Ac
BP2N	500mL HNO3 plastic
BP2C	500mL NaOH plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Ac
BP3B	250mL NaOH plastic
BP3N	250mL HNO3 plastic
BP3F	250mL HNO3 plastic-field filtered
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, ZnAc plastic
BP3R	250mL Unpres. FF SO4/OH buffer
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : Of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 10 Al Paul Lane, Suite 103	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource	
Merrimack, NH 03054	Sarah Gilles	Address:	Regulatory Agency
Email: jim_peace@golder.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)668-0880 Fax	Project Name: RMSGS Boundary Wells	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 21 day TAT	Project #: 314047789.011	Pace Profile #: 9045-3	IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Radium 226+226 (sum)	Residual Chlorine (Y/N)	50356093
1	GRAW-44-101023	WT	G			10/10/23	1045		2			2						X			001
2	GRAW-44B-101023	WT	G			10/10/23	1145		2			2						X			002
3	GRAW-57-101023	WT	G			10/10/23	1310		2			2						X			MS-04/MSD-04 003-005
4	FB-07-101023	WT	G			10/10/23	1400		2			2						X			006
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
**Sub RAD to Pace PA	WSP	10/10/23	1630	FedEx						
	FedEx	10/11/23	920		10/11/23	920	1:2	Y	Y	Y

SAMPLER NAME AND SIGNATURE

10/10/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: TW 10/11/23 1300

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No

(If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** 1 2 3 4 5 6 7 8 A B (C) D E F G H

4. **Cooler Temperature(s):** 1.7/1.7 | 1.2/1.2 | | |

(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Plastic

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No

Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2												WT	✓			
2																↓												↓	↓			
3																																
4																↓																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

WO# : 50356259

50356259

CHAIN-OF-CUSTODY

The Chain-of-Custody is a LEGAL

Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Informatic	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	
Address:	10 Al Paul Lane, Suite 103	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrimack, NH 03054		Sarah Gilies	Address:	
Email:	jim_peace@golder.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)668-0880 Fax	Project Name:	RMSGS Boundary Wells	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	21 day TAT	Project #:	31404789.011	Pace Profile #:	9045-3

Regulatory Agency

State / Location: IN

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226+226 (sum)	Residual Chlorine (Y/N)	
1	GAMW-57B-101123	WT	G			10/11/23	1005		2			2						X	X		001
2	GAMW-58-101123	WT	G			10/11/23	1130		2			2						X	X		002
3	GAMW-58B-101123	WT	G			10/11/23	1230		2			2						X	X		003
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**Sub RAD to Pace PA	[signature] / NSP	10/11/23	1430	FedEx			
	FedEx	10.12.23	0925	Nicole Stiles / PACE	10.12.23	0925	1.3 Y Y Y

SAMPLER NAME AND SIGNATURE

R. Guzman

10/11/23

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: NMS 10-12-2023 1117

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G (H)
4. **Cooler Temperature(s):** 1.3 / 1.3 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X
Short Hold Time Analysis (48 hours or less)? Analysis:		X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	
Rush TAT Requested (4 days or less):		X
Custody Signatures Present?	X	
Containers Intact?:	X	
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X	
Extra labels on Terracore Vials? (soils only)		X

	Yes	No	N/A
All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			X
	Present	Absent	N/A
Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Headspace Wisconsin Sulfide?			X
	Present	Absent	No VOA Vials Sent
Headspace in VOA Vials (>6mm): See Containter Count form for details			X
Trip Blank Present?		X	
Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a RED dot on containers that are out of conformance **

									AMBER GLASS							PLASTIC									OTHER					Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit							
1																2												WT				
2																2																
3																2																
4																																
5																																
6																																
7																																
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Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

November 30, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory on November 14, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3127
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359626001	**GAMW-77-111323**	Water	11/13/23 13:55	11/14/23 09:40

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SAMPLE ANALYTE COUNT

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359626001	**GAMW-77-111323**	EPA 9056	KBB	3	PASI-I
		EPA 6010	MTM	3	PASI-I
		EPA 6020	CAW	11	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	MTW	1	PASI-I
		SM 4500-H+B	LHZ	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

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SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359626001	**GAMW-77-111323**					
EPA 9056	Chloride	2.1	mg/L	0.25	11/29/23 16:01	
EPA 9056	Sulfate	22.0	mg/L	0.25	11/29/23 16:01	
EPA 6010	Boron	0.040J	mg/L	0.10	11/22/23 10:15	
EPA 6010	Calcium	34.0	mg/L	1.0	11/22/23 10:15	
EPA 6020	Arsenic	0.00065J	mg/L	0.0010	11/22/23 14:24	
EPA 6020	Barium	0.0042	mg/L	0.0010	11/19/23 21:25	
EPA 6020	Cadmium	0.000043J	mg/L	0.00020	11/22/23 14:24	
EPA 6020	Chromium	0.00067J	mg/L	0.0020	11/22/23 14:24	
EPA 6020	Cobalt	0.00069J	mg/L	0.0010	11/22/23 14:24	
EPA 6020	Lead	0.00014J	mg/L	0.0010	11/19/23 21:25	
EPA 6020	Molybdenum	0.0017	mg/L	0.0010	11/22/23 14:24	
SM 2540C	Total Dissolved Solids	127	mg/L	10.0	11/17/23 12:29	
SM 4500-H+B	pH at 25 Degrees C	7.4	Std. Units	0.10	11/30/23 11:53	H3

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Method: **EPA 9056**
Description: 9056 IC Anions
Client: NiSource_WSP Golder
Date: November 30, 2023

General Information:
1 sample was analyzed for EPA 9056 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 764392

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50359634007

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 3503779)
  - Chloride

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Method: **EPA 6010**
Description: 6010 MET ICP
Client: NiSource_WSP Golder
Date: November 30, 2023

General Information:
1 sample was analyzed for EPA 6010 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Method: **EPA 6020**
Description: 6020 MET ICPMS
Client: NiSource_WSP Golder
Date: November 30, 2023

General Information:
1 sample was analyzed for EPA 6020 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Method: **EPA 7470**
Description: 7470 Mercury
Client: NiSource_WSP Golder
Date: November 30, 2023

General Information:
1 sample was analyzed for EPA 7470 by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: NiSource_WSP Golder
Date: November 30, 2023

General Information:
1 sample was analyzed for SM 2540C by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: NiSource_WSP Golder
Date: November 30, 2023

General Information:
1 sample was analyzed for SM 4500-H+B by Pace Analytical Services Indianapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- GAMW-77-111323 (Lab ID: 50359626001)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Sample: GAMW-77-111323 **Lab ID: 50359626001** Collected: 11/13/23 13:55 Received: 11/14/23 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Initial Volume/Weight: 10 mL Final Volume/Weight: 10 mL Pace Analytical Services - Indianapolis								
Chloride	**2.1**	mg/L	0.25	0.067	1		11/29/23 16:01	16887-00-6	
Fluoride	ND	mg/L	0.050	0.017	1		11/29/23 16:01	16984-48-8	
Sulfate	**22.0**	mg/L	0.25	0.19	1		11/29/23 16:01	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Boron	**0.040J**	mg/L	0.10	0.011	1	11/21/23 08:07	11/22/23 10:15	7440-42-8	
Calcium	**34.0**	mg/L	1.0	0.057	1	11/21/23 08:07	11/22/23 10:15	7440-70-2	
Lithium	ND	mg/L	0.020	0.0051	1	11/21/23 08:07	11/22/23 10:15	7439-93-2	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Initial Volume/Weight: 50 mL Final Volume/Weight: 50 mL Pace Analytical Services - Indianapolis								
Antimony	ND	mg/L	0.0010	0.00049	1	11/16/23 15:15	11/22/23 14:24	7440-36-0	
Arsenic	**0.00065J**	mg/L	0.0010	0.000075	1	11/16/23 15:15	11/22/23 14:24	7440-38-2	
Barium	**0.0042**	mg/L	0.0010	0.000077	1	11/16/23 15:15	11/19/23 21:25	7440-39-3	
Beryllium	ND	mg/L	0.00020	0.000035	1	11/16/23 15:15	11/19/23 21:25	7440-41-7	
Cadmium	**0.000043J**	mg/L	0.00020	0.000011	1	11/16/23 15:15	11/22/23 14:24	7440-43-9	
Chromium	**0.00067J**	mg/L	0.0020	0.00014	1	11/16/23 15:15	11/22/23 14:24	7440-47-3	
Cobalt	**0.00069J**	mg/L	0.0010	0.000046	1	11/16/23 15:15	11/22/23 14:24	7440-48-4	
Lead	**0.00014J**	mg/L	0.0010	0.000029	1	11/16/23 15:15	11/19/23 21:25	7439-92-1	
Molybdenum	**0.0017**	mg/L	0.0010	0.000046	1	11/16/23 15:15	11/22/23 14:24	7439-98-7	
Selenium	ND	mg/L	0.0010	0.00020	1	11/16/23 15:15	11/22/23 14:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000040	1	11/16/23 15:15	11/19/23 21:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Initial Volume/Weight: 30 mL Final Volume/Weight: 30 mL Pace Analytical Services - Indianapolis								
Mercury	ND	ug/L	0.20	0.091	1	11/27/23 12:35	11/27/23 18:17	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Initial Volume/Weight: 100 mL Final Volume/Weight: 100 mL Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**127**	mg/L	10.0	10.0	1		11/17/23 12:29		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B Pace Analytical Services - Indianapolis								
pH at 25 Degrees C	**7.4**	Std. Units	0.10	0.10	1		11/30/23 11:53		H3

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

QC Batch: 764392
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50359626001

METHOD BLANK: 3503777 Matrix: Water
Associated Lab Samples: 50359626001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.067	11/30/23 01:18	
Fluoride	mg/L	ND	0.050	0.017	11/30/23 01:18	
Sulfate	mg/L	ND	0.25	0.19	11/30/23 01:18	

LABORATORY CONTROL SAMPLE: 3503778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	98	80-120	
Fluoride	mg/L	1	1.0	103	80-120	
Sulfate	mg/L	5	5.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3503779 3503780

Parameter	Units	50359634007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.4	2.5	2.5	15.7	14.9	133	100	80-120	5	15	M0
Fluoride	mg/L	0.70	1	1	1.7	1.7	96	98	80-120	1	15	
Sulfate	mg/L	ND	5	5	7.6	7.5	90	89	80-120	0	15	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

QC Batch: 764671
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359626001

METHOD BLANK: 3505064 Matrix: Water
Associated Lab Samples: 50359626001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.091	11/27/23 17:35	

LABORATORY CONTROL SAMPLE: 3505065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.8	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3505066 3505067

Parameter	Units	50359669002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	5	5	4.6	4.6	93	92	75-125	0	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

QC Batch: 764134
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359626001

METHOD BLANK: 3502678 Matrix: Water
Associated Lab Samples: 50359626001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.011	11/22/23 10:05	
Calcium	mg/L	ND	1.0	0.057	11/22/23 10:05	
Lithium	mg/L	ND	0.020	0.0051	11/22/23 10:05	

LABORATORY CONTROL SAMPLE: 3502679

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.96	96	80-120	
Calcium	mg/L	10	9.9	99	80-120	
Lithium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3502680 3502681

Parameter	Units	50359827005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.38	1	1	1.4	1.4	101	101	75-125	0	20	
Calcium	mg/L	100	10	10	110	111	100	106	75-125	1	20	
Lithium	mg/L	ND	1	1	1.0	1.0	102	101	75-125	1	20	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

QC Batch: 763284
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359626001

METHOD BLANK: 3498582 Matrix: Water
Associated Lab Samples: 50359626001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0010	0.00049	11/22/23 13:43	
Arsenic	mg/L	ND	0.0010	0.000075	11/22/23 13:43	
Barium	mg/L	ND	0.0010	0.000077	11/19/23 20:40	
Beryllium	mg/L	ND	0.00020	0.000035	11/22/23 13:43	
Cadmium	mg/L	ND	0.00020	0.000011	11/22/23 13:43	
Chromium	mg/L	ND	0.0020	0.00014	11/22/23 13:43	
Cobalt	mg/L	ND	0.0010	0.000046	11/22/23 13:43	
Lead	mg/L	ND	0.0010	0.000029	11/19/23 20:40	
Molybdenum	mg/L	ND	0.0010	0.000046	11/22/23 13:43	
Selenium	mg/L	ND	0.0010	0.00020	11/22/23 13:43	
Thallium	mg/L	ND	0.0010	0.000040	11/19/23 20:40	

LABORATORY CONTROL SAMPLE: 3498583

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.041	102	80-120	
Arsenic	mg/L	0.04	0.039	97	80-120	
Barium	mg/L	0.04	0.040	99	80-120	
Beryllium	mg/L	0.04	0.041	101	80-120	
Cadmium	mg/L	0.04	0.039	98	80-120	
Chromium	mg/L	0.04	0.041	103	80-120	
Cobalt	mg/L	0.04	0.041	103	80-120	
Lead	mg/L	0.04	0.041	101	80-120	
Molybdenum	mg/L	0.04	0.041	101	80-120	
Selenium	mg/L	0.04	0.040	101	80-120	
Thallium	mg/L	0.04	0.041	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498584 3498585

Parameter	Units	50359626001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.04	0.04	0.042	0.041	104	103	75-125	1	20	
Arsenic	mg/L	0.00065J	0.04	0.04	0.039	0.039	97	96	75-125	1	20	
Barium	mg/L	0.0042	0.04	0.04	0.044	0.043	99	97	75-125	2	20	
Beryllium	mg/L	ND	0.04	0.04	0.041	0.040	103	100	75-125	2	20	
Cadmium	mg/L	0.000043J	0.04	0.04	0.039	0.039	98	97	75-125	0	20	
Chromium	mg/L	0.00067J	0.04	0.04	0.041	0.041	101	101	75-125	0	20	

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3498584 3498585

Parameter	Units	50359626001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L	0.00069J	0.04	0.04	0.040	0.040	99	97	75-125	1	20	
Lead	mg/L	0.00014J	0.04	0.04	0.041	0.040	102	101	75-125	1	20	
Molybdenum	mg/L	0.0017	0.04	0.04	0.043	0.042	104	102	75-125	2	20	
Selenium	mg/L	ND	0.04	0.04	0.039	0.040	99	99	75-125	0	20	
Thallium	mg/L	ND	0.04	0.04	0.042	0.041	104	103	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

QC Batch: 763575
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50359626001

METHOD BLANK: 3500133 Matrix: Water
Associated Lab Samples: 50359626001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/17/23 12:28	

LABORATORY CONTROL SAMPLE: 3500134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	270	90	80-120	

SAMPLE DUPLICATE: 3500135

Parameter	Units	50359634007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	369	383	4	10	

SAMPLE DUPLICATE: 3500136

Parameter	Units	50359679001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	10900	10900	0	10	

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QUALITY CONTROL DATA

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

QC Batch: 765557
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50359626001

SAMPLE DUPLICATE: 3508186

Parameter	Units	50359596001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.0	7.1	0	2	H3

SAMPLE DUPLICATE: 3508187

Parameter	Units	50359670001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.2	7.3	1	2	H3

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QUALIFIERS

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Boundary Wells
Pace Project No.: 50359626

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359626001	**GAMW-77-111323**	EPA 9056	764392		
50359626001	**GAMW-77-111323**	EPA 3010	764134	EPA 6010	764503
50359626001	**GAMW-77-111323**	EPA 200.2	763284	EPA 6020	763499
50359626001	**GAMW-77-111323**	EPA 7470	764671	EPA 7470	764902
50359626001	**GAMW-77-111323**	SM 2540C	763575		
50359626001	**GAMW-77-111323**	SM 4500-H+B	765557		

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CHAIN-OF-CUSTODY / Analy

The Chain-of-Custody is a LEGAL DOCUMEN

WO# : 50359626

50359626

Page: Of

Section A – Required Client Information:	Section B – Required Project Information:	Section C – Invoice Information:	
Company: NiSource_WSP	Report To: Tom Haskins	Attention: Jeff Loewe U126177	
Address: 10 Al Paul Lane, Suite 103	Copy To: Gabriel Dixon, Danielle Sylvia	Company Name: NiSource	
Merrimack, NH 03054	Sarah Gilles	Address:	Regulatory Agency
Email: thomas.haskins@wsp.com	Purchase Order #: PO33924	Pace Quote:	
Phone: (603)668-0880 Fax:	Project Name: RMSGS Boundary Wells	Pace Project Manager: tina.sayer@pacelabs.com,	State / Location
Requested Due Date: 10 day TAT	Project #: 31406779.011	Pace Profile #: 9045-1	IN

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Total metals **	Cl, F, SO4 by 9056	pH	TDS	Residual Chlorine (Y/N)
1	GAMW-77-111323	WT	G			11/13/23	1355		4	3		1							X	X	X	X	
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
**B,Ca,Li by 6010;	WSP	11/13/23	1600	FedEx						
Be,Cr,Co,As,Se,Mo,Cd,Sb,Ba,Tl,Pb by 6020	FedEx	11-14-23	9:40		11-14-23	9:40	0.2	y	y	y
Hg by 7470										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: 11/13/23

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: RC 11-14-23 11:30

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No (leave blank if no seals were present)
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.2/0.2 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)
5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	✓		Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																		3	1									WT	✓			
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

November 29, 2023

Mr. Tom Haskins
WSP Golder
10 Al Paul Lane
Suite 103
Merrimack, NH 03054

RE: Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Dear Mr. Haskins:

Enclosed are the analytical results for sample(s) received by the laboratory on November 14, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

Revised report replaces report dated 11/29/23. ID corrected per COC. 11/29/23tms

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3127
Project Manager

Enclosures

cc: Gabe Dixon, WSP
Ms. Sarah Gilles, WSP Golder
Ms. Danielle Sylvia, WSP Golder

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CERTIFICATIONS

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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SAMPLE SUMMARY

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50359628001	**GAMW-77-111323**	Water	11/13/23 13:55	11/14/23 09:40

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SAMPLE ANALYTE COUNT

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50359628001	**GAMW-77-111323**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50359628001	**GAMW-77-111323**					
EPA 903.1	Radium-226	0.0671 ± 0.658 (1.26) C:NA T:91%	pCi/L		11/28/23 12:43	
EPA 904.0	Radium-228	0.174 ± 0.306 (0.669) C:85% T:81%	pCi/L		11/28/23 15:55	
Total Radium Calculation	Total Radium	0.241 ± 0.964 (1.93)	pCi/L		11/29/23 10:37	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: NiSource_WSP Golder
Date: November 29, 2023

General Information:
1 sample was analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: NiSource_WSP Golder
Date: November 29, 2023

General Information:
1 sample was analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Method: **Total Radium Calculation**
Description: Total Radium 228+226
Client: NiSource_WSP Golder
Date: November 29, 2023

General Information:
1 sample was analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Sample: GAMW-77-111323 **Lab ID: 50359628001** Collected: 11/13/23 13:55 Received: 11/14/23 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.0671 ± 0.658 (1.26) C:NA T:91%**	pCi/L	11/28/23 12:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.174 ± 0.306 (0.669) C:85% T:81%**	pCi/L	11/28/23 15:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.241 ± 0.964 (1.93)**	pCi/L	11/29/23 10:37	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

QC Batch: 631041
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359628001

METHOD BLANK: 3076765 Matrix: Water
Associated Lab Samples: 50359628001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.403 ± 0.389 (0.796) C:74% T:81%	pCi/L	11/28/23 12:32	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL - RADIOCHEMISTRY

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

QC Batch: 631040
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50359628001

METHOD BLANK: 3076762 Matrix: Water
Associated Lab Samples: 50359628001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.115 ± 0.262 (0.155) C:NA T:84%	pCi/L	11/28/23 12:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RMSGS Boundary Wells
Pace Project No.: 50359628

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50359628001	**GAMW-77-111323**	EPA 903.1	631040		
50359628001	**GAMW-77-111323**	EPA 904.0	631041		
50359628001	**GAMW-77-111323**	Total Radium Calculation	632632		

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WO# : 50359628

50359628

CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DOC

Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	NiSource_WSP	Report To:	Tom Haskins	Attention:	
Address:	10 Al Paul Lane, Suite 103	Copy To:	Gabriel Dixon, Danielle Sylvia	Company Name:	NiSource
	Merrimack, NH 03054		Sarah Gilles	Address:	
Email:	jim_peace@golder.com	Purchase Order #:	PO33924	Pace Quote:	
Phone:	(603)668-0880 Fax	Project Name:	RMSGS Boundary Wells	Pace Project Manager:	tina.sayer@pacelabs.com,
Requested Due Date:	21 day TAT	Project #:	314067719.011	Pace Profile #:	9045-3

Regulatory Agency
State / Location
IN

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226+226 (sum)	Residual Chlorine (Y/N)
1	GAMW-77 - 111323	WT	G			11/8/23	1355		2			2							X	
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
**Sub RAD to Pace PA	USP	11/13/23	1600	FedEx			
	FedEx	11-14-23	9:40	K. Clemmons	11-14-23	9:40	0.2 y y y

SAMPLER NAME AND SIGNATURE

R. BERMAN

11/13/23

F-IN-Q-290-rev.23, 26Jun2023

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: BC 11-14-23 11:30

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 A B C D E F G H
4. **Cooler Temperature(s):** 0.2/0.2 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form RADs		✓	
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:	✓		Present	Absent	N/A
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Custody Signatures Present?	✓		Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Containers Intact?:	✓		Headspace Wisconsin Sulfide?			✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Extra labels on Terracore Vials? (soils only)			Trip Blank Present?		✓	
			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a RED dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS >6mm	VG9U DG9U	VG9T	AMBER GLASS AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER CG3H	CG3F	Syringe Kit		Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																2												WT				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKU	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic

BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic		
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic		
BP2C	500mL NaOH plastic		
BP2S	500mL H2SO4 plastic		
BP2U	500mL unpreserved plastic		
BP2Z	500mL NaOH, Zn Ac		
BP3B	250mL NaOH plastic		
BP3N	250mL HNO3 plastic		
BP3F	250mL HNO3 plastic-field filtered		
BP3U	250mL unpreserved plastic		
BP3S	250mL H2SO4 plastic		
BP3Z	250mL NaOH, ZnAc plastic		
BP3R	250mL Unpres. FF SO4/OH buffer		

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

APPENDIX E

2023 Data Usability Summary Report

Data Usability Summary Report
2023 Groundwater Samples

This Data Usability Summary Report (DUSR) presents the findings of the data quality assessment performed on the analyses of groundwater samples collected for two (2) semi-annual sampling events, conducted between April 12th and May 5th, 2023 and between September 13th and November 13th, 2023 at the R. M. Schahfer Generating Station. Samples reported in laboratory sample delivery groups (SDGs) listed in Table 1 were reviewed as part of this DUSR.

The samples were submitted Pace Analytical Laboratories located in Indianapolis, IN and Greensburg, PA to perform requested analyses. Information regarding the sample point identifications, analytical parameters, quality control (QC) samples, sampling dates, and laboratory SDG designations are summarized in Table 1. Groundwater samples were analyzed following methods:

- Target Compound List (TCL) Total Metals following USEPA SW-846 Method 6020A, Inductively Coupled Plasma-Mass Spectrometry, February 2007 and USEPA SW-846 Method 6010C Inductively Coupled Plasma- Atomic Emission Spectrometry Revision 3 (November 2000);
- Mercury following USEPA SW846 7470A Mercury in Liquid Wastes (Manual Cold- Vapor Technique) Revision 1 (September 1994);
- Anions (chloride, fluoride, and sulfate) following USEPA SW846 9056A Determination of Inorganic Anions by Ion Chromatography Revision 1 (February 2007);
- Total Dissolved Solids (TDS) following SM 2540C Total Dissolved Solids Dried at 180 °C, Standard Methods 20th Edition (1998);
- pH by SM 4500-H+B pH in Water by Potentiometry; and,
- Radium-226 and Radium-228 following USEPA SW846 Method 903.1 Radium-226 in Drinking Water Radon Emanation Technique (January 1980) and USEPA SW846 Method 904.0 Radium-228 in Drinking Water (January 1980), respectively.

A total of 103 groundwater samples, as well as 10 field blanks, 10 field duplicates, and 12 matrix spikes/matrix spike duplicates (MS/MSDs) were collected and analyzed during the two semi-annual events.

The data quality assessment of inorganic results was performed in accordance with the Quality Assurance Project Plan (QAPP) and EPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Inorganic Superfund Methods Data Review (January 2017) (Inorganic Guidelines) and the Evaluation of Radiochemistry Data Usability- Department of Energy (DOE, 1997) (Guidelines), where applicable to the methods listed above. If there was a conflict between the Guidelines and the analytical methodology, method specific criteria and professional judgment were used.

In general, chemical results for the samples collected at the Site were qualified based on outlying accuracy, precision, and analytical holding time exceedances. The following definitions provide brief explanations of the qualifiers which may have been assigned to data during the data validation process.

J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample and may be considered biased high.
J-	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample and may be considered biased low.

U	The analyte was analyzed for but was not detected above the reported sample quantitation limit.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

In general, the data generated as part of the groundwater sampling event met the QC criteria established in the respective methods and the Inorganic Guidelines. Table 2 summarizes all qualifications applied to the data, with applicable qualifier codes. Certain samples may have been qualified for multiple data quality assessment (DQA) findings, as shown in Table 2. The following bulleted items highlight qualifications to specific parameters and/or samples:

- Laboratory analyzed pH samples were analyzed outside of method holding time. All laboratory measured pH values were qualified as estimated (J). Field measured pH values were used in all data evaluations.
- The antimony results for samples FD-04-050123, GAMW-68-050123, and GAMW-68B-050123 were qualified as non-detect (U) due to field blank contamination.
- The barium result for sample GAMW-44B-050423 was qualified as estimated biased high (J+) due to field blank contamination.
- The boron result for sample GAMW-52B-092523 was qualified as non-detect (U) due to field blank contamination.
- The chromium results for samples FD-01-041923, GAMW-09-041923, GAMW-09B-041923, GAMW-17-041923, GAMW-18-041923, FD-02-042023, GAMW-16R-042023, GAMW-17B-042023, GAMW-18B-042023, GAMW-60-042023, GAMW-60B-042023, GAMW-54-042623, GAMW-54B-042623, GAMW-55B-042623, GAMW-55R-042623, FD-04-050123, GAMW-68-050123, GAMW-68B-050123, GAMW-44B-050423, GAMW-57-050423, FD-03-091923, FD-04-092123, FD-06-100223, GAMW-08-091923, GAMW-08B-091923, GAMW-09-092123, GAMW-09B-092123, GAMW-17B-100223, GAMW-18-092123, GAMW-51B-091923, GAMW-52-092523, GAMW-52B-092523, GAMW-54-092523, GAMW-54B-092523, GAMW-56B-092523, GAMW-59-091923, GAMW-60-091923, GAMW-60B-091923, GAMW-68-100223, GAMW-68B-100223, GAMW-44-101023, GAMW-44B-101023, and GAMW-57-101023 were qualified as non-detect (U) at the reporting limit due to field blank contamination.
- The lead results for samples FD-06-100223, GAMW-17B-100223, GAMW-52B-092523, GAMW-54-092523, GAMW-54B-092523, GAMW-68-100223, and GAMW-68B-100223 were qualified as non-detect (U) at the reporting limit due to field blank contamination.
- The selenium results for samples GAMW-57B-050523 and GAMW-58B-050523 were qualified as estimated and non-detect (UJ), and the selenium result for sample GAMW-58-050523 was qualified as estimated and potentially biased low (J-) due to MS/MSD percent recoveries below quality control limits.
- The radium-226 result for sample GAMW-43B-100923 was qualified as estimated (J), and the sample result for sample FD-07-100923 was qualified as estimated and non-detect (UJ) due to field duplicate RPDs greater than quality control limits.
- The radium-228 results for samples GAMW-55B-092923, GAMW-17B-100223, and GAMW-68B-100223 were qualified as non-detect (U) due to method blank contamination. The associated total radium result for GAMW-17B-100223 was also qualified as non-detect (U) due to method blank contamination.
- The radium-226 result for sample GAMW-01-041323 was qualified as estimated and non-detect (UJ), and the radium-226 result for GAMW-01B-041323 was qualified as estimated and potentially biased low (J-) due to an MS recovery below quality control limits.

- The radium-228 and associated total radium results for samples GAMW-17B-042023, GAMW-16R-042023, and FD-02-042023 were qualified as estimated and non-detect (UJ) due to an MS recovery below quality control limits and an MS/MSD relative percent difference above quality control limits.
- The radium-228 and associated total radium results for samples GAMW-18B-042023 and GAMW-60B-042023 were qualified as estimated and potentially biased low (J-) due to an MS recovery below quality control limits and an MS/MSD relative percent difference above quality control limits.
- The radium-228 result for sample GAMW-60-042023 was qualified as estimated and potentially biased low (J-), and its associated total radium result was qualified as estimated and non-detect (UJ) due to an MS recovery below quality control limits and an MS/MSD relative percent difference above quality control limits.
- The radium-228 and associated total radium results for sample GAMW-01-041323 were qualified as estimated and non-detect (UJ) due to an MS/MSD recovery below quality control limits.
- The radium-228 and associated total radium results for sample GAMW-01B-041323 were qualified as estimated and potentially biased low (J-) due to an MS/MSD recovery below quality control limits.
- The radium-228 and associated total radium results for samples GAMW-52-042523 and FD-03-042523 were qualified as estimated and non-detect (UJ) due to an MS/MSD relative percent difference above quality control limits.
- The radium-228 and associated total radium results for samples GAMW-52B-042523, GAMW-13-091423, GAMW-14B-091423, and GAMW-13B-091423 were qualified as estimated (J) due to an MS/MSD relative percent difference above quality control limits.
- The radium-228 result for sample GAMW-14-091423 was qualified as estimated (J), and its associated total radium result was qualified as estimated and non-detect (UJ) due to an MS/MSD relative percent difference above quality control limits.

Dilutions do not require qualifications based on the Guidelines. Detection and reporting limits of non-detect compounds are elevated proportional to the dilution when undiluted sample results are not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of statewide characterization.

Based on the data validations and data quality assessment, 100% of the analytical data for samples collected at the Site were determined to be acceptable (including estimated data) for their intended use.

TABLE 1
Sample Collection and Analysis Summary
NIPSCO LLC CCR Groundwater Monitoring - R. M. Schahfer

Laboratory SDG	Field Identification	Collection Date	Location	Matrix	QC Samples	Anions by EPA 9056	Metals by EPA 6010 and 6020	Mercury by EPA 7470	Total Dissolved Solids by SM 2540C	pH by SM 4500-H+B	Radium-226	Radium-228	Combined Radium
50341962	GAMW-14-041223	4/12/2023	GAMW14	GW	-	X	X	X	X	X			
50341962	GAMW-14B-041223	4/12/2023	GAMW14B	GW	-	X	X	X	X	X			
50341962	GAMW-01-041323	4/13/2023	GAMW01	GW	-	X	X	X	X	X			
50341962	GAMW-01B-041323	4/13/2023	GAMW01B	GW	MS/MSD	X	X	X	X	X			
50341962	GAMW-03-041423	4/14/2023	GAMW03	GW	-	X	X	X	X	X			
50341962	GAMW-03B-041423	4/14/2023	GAMW03B	GW	-	X	X	X	X	X			
50341962	GAMW-12-041423	4/14/2023	GAMW12	GW	-	X	X	X	X	X			
50341962	GAMW-12B-041423	4/14/2023	GAMW12B	GW	-	X	X	X	X	X			
50341962	GAMW-13-041423	4/14/2023	GAMW13	GW	-	X	X	X	X	X			
50341962	GAMW-13B-041423	4/14/2023	GAMW13B	GW	-	X	X	X	X	X			
50341962	GAMW-51-041523	4/15/2023	GAMW51	GW	-	X	X	X	X	X			
50341962	GAMW-51B-041523	4/15/2023	GAMW51B	GW	-	X	X	X	X	X			
50341962	GAMW-59-041523	4/15/2023	GAMW59	GW	-	X	X	X	X	X			
50341962	GAMW-59B-041523	4/15/2023	GAMW59B	GW	-	X	X	X	X	X			
50341962	FB-01-041923	4/19/2023	-	WQ	FB	X	X	X	X	X			
50341962	FD-01-041923	4/19/2023	GAMW09B	GW	FD	X	X	X	X	X			
50341962	GAMW-09-041923	4/19/2023	GAMW09	GW	-	X	X	X	X	X			
50341962	GAMW-09B-041923	4/19/2023	GAMW09B	GW	-	X	X	X	X	X			
50341962	GAMW-17-041923	4/19/2023	GAMW17	GW	-	X	X	X	X	X			
50341962	GAMW-18-041923	4/19/2023	GAMW18	GW	-	X	X	X	X	X			
50341962	FB-02-042023	4/20/2023	-	WQ	FB	X	X	X	X	X			
50341962	FD-02-042023	4/20/2023	GAMW60	GW	FD	X	X	X	X	X			
50341962	GAMW-16R-042023	4/20/2023	GAMW16R	GW	-	X	X	X	X	X			
50341962	GAMW-17B-042023	4/20/2023	GAMW17B	GW	MS/MSD	X	X	X	X	X			
50341962	GAMW-18B-042023	4/20/2023	GAMW18B	GW	-	X	X	X	X	X			
50341962	GAMW-60-042023	4/20/2023	GAMW60	GW	-	X	X	X	X	X			
50341962	GAMW-60B-042023	4/20/2023	GAMW60B	GW	-	X	X	X	X	X			
50341962	GAMW-08-042123	4/21/2023	GAMW08	GW	-	X	X	X	X	X			
50341962	GAMW-08B-042123	4/21/2023	GAMW08B	GW	-	X	X	X	X	X			
50341962	GAMW-16BR-042123	4/21/2023	GAMW16BR	GW	-	X	X	X	X	X			
50341962	GAMW-56-042123	4/21/2023	GAMW56	GW	-	X	X	X	X	X			
50341962	GAMW-56B-042123	4/21/2023	GAMW56B	GW	-	X	X	X	X	X			
50341962	GAMW-53-042423	4/24/2023	GAMW53	GW	-	X	X	X	X	X			
50341962	GAMW-53B-042423	4/24/2023	GAMW53B	GW	-	X	X	X	X	X			
50341962	FD-03-042523	4/25/2023	GAMW52	GW	FD	X	X	X	X	X			
50341962	GAMW-52-042523	4/25/2023	GAMW52	GW	-	X	X	X	X	X			
50341962	GAMW-52B-042523	4/25/2023	GAMW52B	GW	MS/MSD	X	X	X	X	X			
50341962	FB-03-042623	4/26/2023	-	WQ	FB	X	X	X	X	X			
50341962	GAMW-54-042623	4/26/2023	GAMW54	GW	-	X	X	X	X	X			
50341962	GAMW-54B-042623	4/26/2023	GAMW54B	GW	-	X	X	X	X	X			
50341962	GAMW-55B-042623	4/26/2023	GAMW55B	GW	-	X	X	X	X	X			
50341962	GAMW-55R-042623	4/26/2023	GAMW55R	GW	-	X	X	X	X	X			
50341962	FB-04-050123	5/1/2023	-	WQ	FB	X	X	X	X	X			
50341962	FD-04-050123	5/1/2023	GAMW68B	GW	FD	X	X	X	X	X			
50341962	GAMW-68-050123	5/1/2023	GAMW68	GW	-	X	X	X	X	X			
50341962	GAMW-68B-050123	5/1/2023	GAMW68B	GW	-	X	X	X	X	X			
50341961	GAMW-14-041223	4/12/2023	GAMW14	GW	-						X	X	X
50341961	GAMW-14B-041223	4/12/2023	GAMW14B	GW	-						X	X	X
50341961	GAMW-01-041323	4/13/2023	GAMW01	GW	-						X	X	X
50341961	GAMW-01B-041323	4/13/2023	GAMW01B	GW	-						X	X	X

TABLE 1
Sample Collection and Analysis Summary
NIPSCO LLC CCR Groundwater Monitoring - R. M. Schahfer

Laboratory SDG	Field Identification	Collection Date	Location	Matrix	QC Samples	Anions by EPA 9056	Metals by EPA 6010 and 6020	Mercury by EPA 7470	Total Dissolved Solids by SM 2540C	pH by SM 4500-H+B	Radium-226	Radium-228	Combined Radium
50341961	GAMW-01B-041323 MS	4/13/2023	GAMW01B	WQ	MS						X	X	X
50341961	GAMW-01B-041323 MSD	4/13/2023	GAMW01B	WQ	MSD						X	X	X
50341961	GAMW-03-041423	4/14/2023	GAMW03	GW	-						X	X	X
50341961	GAMW-03B-041423	4/14/2023	GAMW03B	GW	-						X	X	X
50341961	GAMW-12-041423	4/14/2023	GAMW12	GW	-						X	X	X
50341961	GAMW-12B-041423	4/14/2023	GAMW12B	GW	-						X	X	X
50341961	GAMW-13-041423	4/14/2023	GAMW13	GW	-						X	X	X
50341961	GAMW-13B-041423	4/14/2023	GAMW13B	GW	-						X	X	X
50341961	GAMW-51-041523	4/15/2023	GAMW51	GW	-						X	X	X
50341961	GAMW-51B-041523	4/15/2023	GAMW51B	GW	-						X	X	X
50341961	GAMW-59-041523	4/15/2023	GAMW59	GW	-						X	X	X
50341961	GAMW-59B-041523	4/15/2023	GAMW59B	GW	-						X	X	X
50341961	GAMW-09-041923	4/19/2023	GAMW09	GW	-						X	X	X
50341961	GAMW-09B-041923	4/19/2023	GAMW09B	GW	-						X	X	X
50341961	GAMW-17-041923	4/19/2023	GAMW17	GW	-						X	X	X
50341961	GAMW-18-041923	4/19/2023	GAMW18	GW	-						X	X	X
50341961	FD-01-041923	4/19/2023	GAMW09B	GW	FD						X	X	X
50341961	FB-01-041923	4/19/2023	GAMW18	WQ	FB						X	X	X
50341961	GAMW-17B-042023	4/20/2023	GAMW17B	GW	-						X	X	X
50341961	GAMW-18B-042023	4/20/2023	GAMW18B	GW	-						X	X	X
50341961	GAMW-60-042023	4/20/2023	GAMW60	GW	-						X	X	X
50341961	GAMW-60B-042023	4/20/2023	GAMW60B	GW	-						X	X	X
50341961	GAMW-16R-042023	4/20/2023	GAMW16R	GW	-						X	X	X
50341961	FD-02-042023	4/20/2023	GAMW60	GW	FD						X	X	X
50341961	FB-02-042023	4/20/2023	GAMW60B	WQ	FB						X	X	X
50341961	GAMW-17B-042023 MS	4/20/2023	GAMW17B	WQ	MS						X	X	X
50341961	GAMW-17B-042023 MSD	4/20/2023	GAMW17B	WQ	MSD						X	X	X
50341961	GAMW-56-042123	4/21/2023	GAMW56	GW	-						X	X	X
50341961	GAMW-56B-042123	4/21/2023	GAMW56B	GW	-						X	X	X
50341961	GAMW-16BR-042123	4/21/2023	GAMW16BR	GW	-						X	X	X
50341961	GAMW-08-042123	4/21/2023	GAMW08	GW	-						X	X	X
50341961	GAMW-08B-042123	4/21/2023	GAMW08B	GW	-						X	X	X
50341961	GAMW-53-042423	4/24/2023	GAMW53	GW	-						X	X	X
50341961	GAMW-53B-042423	4/24/2023	GAMW53B	GW	-						X	X	X
50341961	GAMW-52-042523	4/25/2023	GAMW52	GW	-						X	X	X
50341961	GAMW-52B-042523	4/25/2023	GAMW52B	GW	-						X	X	X
50341961	GAMW-52B-042523 MS	4/25/2023	GAMW52B	WQ	MS						X	X	X
50341961	GAMW-52B-042523 MSD	4/25/2023	GAMW52B	WQ	MSD						X	X	X
50341961	FD-03-042523	4/25/2023	GAMW52	GW	FD						X	X	X
50341961	GAMW-68-050123	5/1/2023	GAMW68	GW	-						X	X	X
50341961	GAMW-68B-050123	5/1/2023	GAMW68B	GW	-						X	X	X
50341961	FB-04-050123	5/1/2023	GAMW68B	WQ	FB						X	X	X
50341961	FD-04-050123	5/1/2023	GAMW68B	GW	FD						X	X	X
50341961	GAMW-54-042623	4/26/2023	GAMW54	GW	-						X	X	X
50341961	GAMW-54B-042623	4/26/2023	GAMW54B	GW	-						X	X	X
50341961	GAMW-55R-042623	4/26/2023	GAMW55R	GW	-						X	X	X
50341961	GAMW-55B-042623	4/26/2023	GAMW55B	GW	-						X	X	X
50341961	FB-03-042623	4/26/2023	GAMW54B	WQ	FB						X	X	X
50343391	GAMW-46-042723	4/27/2023	GAMW-46	GW	-	X	X	X	X	X			
50343391	GAMW-46B-042723	4/27/2023	GAMW-46B	GW	-	X	X	X	X	X			
50343391	GAMW-42-050223	5/2/2023	GAMW-42	GW	-	X	X	X	X	X			
50343391	GAMW-42B-050223	5/2/2023	GAMW-42B	GW	-	X	X	X	X	X			
50343391	GAMW-42C-050323	5/3/2023	GAMW-42C	GW	-	X	X	X	X	X			
50343391	GAMW-43-050323	5/3/2023	GAMW-43	GW	-	X	X	X	X	X			
50343391	GAMW-43B-050323	5/3/2023	GAMW-43B	GW	-	X	X	X	X	X			
50343391	FD-05-050323	5/3/2023	GAMW-43	GW	FD	X	X	X	X	X			
50343391	GAMW-44-050423	5/4/2023	GAMW-44	GW	-	X	X	X	X	X			
50343391	GAMW-44B-050423	5/4/2023	GAMW-44B	GW	-	X	X	X	X	X			

TABLE 1
Sample Collection and Analysis Summary
NIPSCO LLC CCR Groundwater Monitoring - R. M. Schahfer

Laboratory SDG	Field Identification	Collection Date	Location	Matrix	QC Samples	Anions by EPA 9056	Metals by EPA 6010 and 6020	Mercury by EPA 7470	Total Dissolved Solids by SM 2540C	pH by SM 4500-H+B	Radium-226	Radium-228	Combined Radium
50343391	GAMW-57-050423	5/4/2023	GAMW-57	GW	-	X	X	X	X	X			
50343391	FB-05-050424	5/4/2023	GAMW-57	WQ	FB	X	X	X	X	X			
50343391	GAMW-57B-050523	5/5/2023	GAMW-57B	GW	-	X	X	X	X	X			
50343391	GAMW-58-050523	5/5/2023	GAMW-58	GW	-	X	X	X	X	X			
50343391	GAMW-58B-050523	5/5/2023	GAMW-58B	GW	-	X	X	X	X	X			
50343389	GAMW-46-042723	4/27/2023	GAMW-46	GW	-						X	X	X
50343389	GAMW-46B-042723	4/27/2023	GAMW-46B	GW	-						X	X	X
50343389	GAMW-42-050223	5/2/2023	GAMW-42	GW	-						X	X	X
50343389	GAMW-42B-050223	5/2/2023	GAMW-42B	GW	-						X	X	X
50343389	GAMW-42C-050323	5/3/2023	GAMW-42C	GW	-						X	X	X
50343389	GAMW-43-050323	5/3/2023	GAMW-43	GW	-						X	X	X
50343389	GAMW-43B-050323	5/3/2023	GAMW-43B	GW	-						X	X	X
50343389	FD-05-050323	5/3/2023	GAMW-43	GW	FD						X	X	X
50343389	GAMW-44-050424	5/4/2023	GAMW-44	GW	-						X	X	X
50343389	GAMW-44B-050424	5/4/2023	GAMW-44B	GW	-						X	X	X
50343389	GAMW-57-050424	5/4/2023	GAMW-57	GW	-						X	X	X
50343389	FB-05-050424	5/4/2023	GAMW-57	WQ	FB						X	X	X
50343389	GAMW-57B-050523	5/5/2023	GAMW-57B	GW	-						X	X	X
50343389	GAMW-58-050523	5/5/2023	GAMW-58	GW	-						X	X	X
50343389	GAMW-58B-050523	5/5/2023	GAMW-58B	GW	-						X	X	X
50341962	GAMW-01-091323	9/13/2023	GAMW-01	GW	-	X	X	X	X	X			
50341962	GAMW-01B-091323	9/13/2023	GAMW-01B	GW	-	X	X	X	X	X			
50341962	GAMW-14-091423	9/14/2023	GAMW-14	GW	-	X	X	X	X	X			
50341962	GAMW-14B-091423	9/14/2023	GAMW-14B	GW	-	X	X	X	X	X			
50341962	GAMW-13-091423	9/14/2023	GAMW-13	GW	MS/MSD	X	X	X	X	X			
50341962	GAMW-13B-091423	9/14/2023	GAMW-13B	GW	-	X	X	X	X	X			
50341962	GAMW-12-091523	9/15/2023	GAMW-12	GW	-	X	X	X	X	X			
50341962	GAMW-12B-091523	9/15/2023	GAMW-12B	GW	-	X	X	X	X	X			
50341962	GAMW-03-091523	9/15/2023	GAMW-03	GW	-	X	X	X	X	X			
50341962	GAMW-03B-091523	9/15/2023	GAMW-03B	GW	-	X	X	X	X	X			
50341962	GAMW-51-091823	9/18/2023	GAMW-51	GW	-	X	X	X	X	X			
50341962	GAMW-51B-091923	9/19/2023	GAMW-51B	GW	-	X	X	X	X	X			
50341962	GAMW-08-091923	9/19/2023	GAMW-08	GW	-	X	X	X	X	X			
50341962	GAMW-08B-091923	9/19/2023	GAMW-08B	GW	-	X	X	X	X	X			
50341962	FD-03-091923	9/19/2023	GAMW-51B	GW	FD	X	X	X	X	X			
50341962	FB-04-091923	9/19/2023	GAMW-08B	WQ	FB	X	X	X	X	X			
50341962	GAMW-60-091923	9/19/2023	GAMW-60	GW	-	X	X	X	X	X			
50341962	GAMW-60B-091923	9/19/2023	GAMW-60B	GW	-	X	X	X	X	X			
50341962	GAMW-59-091923	9/19/2023	GAMW-59	GW	-	X	X	X	X	X			
50341962	GAMW-16R-092023	9/20/2023	GAMW-16R	GW	MS/MSD	X	X	X	X	X			
50341962	GAMW-16BR-092023	9/20/2023	GAMW-16BR	GW	-	X	X	X	X	X			
50341962	GAMW-59B-092023	9/20/2023	GAMW-59B	GW	-	X	X	X	X	X			
50341962	GAMW-17-092023	9/20/2023	GAMW-17	GW	-	X	X	X	X	X			
50341962	GAMW-09-092123	9/21/2023	GAMW-09	GW	-	X	X	X	X	X			
50341962	GAMW-09B-092123	9/21/2023	GAMW-09B	GW	-	X	X	X	X	X			
50341962	GAMW-18-092123	9/21/2023	GAMW-18	GW	-	X	X	X	X	X			
50341962	FB-03-092123	9/21/2023	GAMW-09	WQ	FB	X	X	X	X	X			
50341962	FD-04-092123	9/21/2023	GAMW-18	GW	FD	X	X	X	X	X			
50341962	GAMW-18B-092223	9/22/2023	GAMW-18B	GW	-	X	X	X	X	X			
50341962	GAMW-56-092223	9/22/2023	GAMW-56	GW	-	X	X	X	X	X			
50341962	FD-05-092223	9/22/2023	GAMW-56	GW	FD	X	X	X	X	X			
50341962	GAMW-54-092523	9/25/2023	GAMW-54	GW	-	X	X	X	X	X			
50341962	GAMW-54B-092523	9/25/2023	GAMW-54B	GW	-	X	X	X	X	X			
50341962	FB-05-092523	9/25/2023	GAMW-54B	WQ	FB	X	X	X	X	X			
50341962	GAMW-56B-092523	9/25/2023	GAMW-56B	GW	-	X	X	X	X	X			
50341962	GAMW-52-092523	9/25/2023	GAMW-52	GW	-	X	X	X	X	X			
50341962	GAMW-52B-092523	9/25/2023	GAMW-52B	GW	-	X	X	X	X	X			
50341962	GAMW-53-092823	9/28/2023	GAMW-53	GW	-	X	X	X	X	X			
50341962	GAMW-53B-092823	9/28/2023	GAMW-53B	GW	-	X	X	X	X	X			
50341962	GAMW-55R-092923	9/29/2023	GAMW-55R	GW	-	X	X	X	X	X			

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Sample Collection and Analysis Summary
NIPSCO LLC CCR Groundwater Monitoring - R. M. Schahfer

Laboratory SDG	Field Identification	Collection Date	Location	Matrix	QC Samples	Anions by EPA 9056	Metals by EPA 6010 and 6020	Mercury by EPA 7470	Total Dissolved Solids by SM 2540C	pH by SM 4500-H+B	Radium-226	Radium-228	Combined Radium
50341962	GAMW-55B-092923	9/29/2023	GAMW-55B	GW	-	X	X	X	X	X			
50341962	GAMW-17B-100223	10/2/2023	GAMW-17B	GW	-	X	X	X	X	X			
50341962	GAMW-68-100223	10/2/2023	GAMW-68	GW	-	X	X	X	X	X			
50341962	GAMW-68B-100223	10/2/2023	GAMW-68B	GW	-	X	X	X	X	X			
50341962	FD-06-100223	10/2/2023	GAMW-68B	GW	FD	X	X	X	X	X			
50341962	FB-06-100223	10/2/2023	GAMW-68B	WQ	FB	X	X	X	X	X			
50353853	GAMW-01-091323	9/13/2023	GAMW01	GW	-						X	X	X
50353853	GAMW-01B-091323	9/13/2023	GAMW01B	GW	-						X	X	X
50353853	GAMW-14-091423	9/14/2023	GAMW14	GW	-						X	X	X
50353853	GAMW-14B-091423	9/14/2023	GAMW14B	GW	-						X	X	X
50353853	GAMW-13-091423	9/14/2023	GAMW13	GW	-						X	X	X
50353853	GAMW-13-091423 MS	9/14/2023	GAMW13	GW	MS						X	X	X
50353853	GAMW-13-091423 MSD	9/14/2023	GAMW13	GW	MSD						X	X	X
50353853	GAMW-13B-091423	9/14/2023	GAMW13B	GW	-						X	X	X
50353853	GAMW-12-091523	9/15/2023	GAMW12	GW	-						X	X	X
50353853	GAMW-12B-091523	9/15/2023	GAMW12B	GW	-						X	X	X
50353853	GAMW-03-091523	9/15/2023	GAMW03	GW	-						X	X	X
50353853	GAMW-03B-091523	9/15/2023	GAMW03B	GW	-						X	X	X
50353853	GAMW-51-091823	9/18/2023	GAMW51	GW	-						X	X	X
50353853	GAMW-51B-091923	9/19/2023	GAMW51B	GW	-						X	X	X
50353853	GAMW-08-091923	9/19/2023	GAMW08	GW	-						X	X	X
50353853	GAMW-08B-091923	9/19/2023	GAMW08B	GW	-						X	X	X
50353853	FD-03-091923	9/19/2023	GAMW51B	GW	FD						X	X	X
50353853	FB-04-091923	9/19/2023	GAMW08B	WQ	FB						X	X	X
50353853	GAMW-60-091923	9/19/2023	GAMW60	GW	-						X	X	X
50353853	GAMW-60B-091923	9/19/2023	GAMW60B	GW	-						X	X	X
50353853	GAMW-59-091923	9/19/2023	GAMW59	GW	-						X	X	X
50353853	GAMW-16R-092023	9/20/2023	GAMW16R	GW	-						X	X	X
50353853	GAMW-16R-092023 MS	9/20/2023	GAMW16R	GW	MS						X	X	X
50353853	GAMW-16R-092023 MSD	9/20/2023	GAMW16R	GW	MSD						X	X	X
50353853	GAMW-16BR-092023	9/20/2023	GAMW16BR	GW	-						X	X	X
50353853	GAMW-59B-092023	9/20/2023	GAMW59B	GW	-						X	X	X
50353853	GAMW-17-092023	9/20/2023	GAMW17	GW	-						X	X	X
50353853	GAMW-09-092123	9/21/2023	GAMW09	GW	-						X	X	X
50353853	GAMW-09B-092123	9/21/2023	GAMW09B	GW	-						X	X	X
50353853	GAMW-18-092123	9/21/2023	GAMW18	GW	-						X	X	X
50353853	FB-03-092123	9/21/2023	GAMW09	WQ	FB						X	X	X
50353853	FD-04-092123	9/21/2023	GAMW18	GW	FD						X	X	X
50353853	GAMW-18B-092223	9/22/2023	GAMW18B	GW	-						X	X	X
50353853	GAMW-56-092223	9/22/2023	GAMW56	GW	-						X	X	X
50353853	FD-05-092223	9/22/2023	GAMW56	GW	FD						X	X	X
50353853	GAMW-54-092523	9/25/2023	GAMW54	GW	-						X	X	X
50353853	GAMW-54B-092523	9/25/2023	GAMW54B	GW	-						X	X	X
50353853	FB-05-092523	9/25/2023	GAMW54B	WQ	FB						X	X	X
50353853	GAMW-56B-092523	9/25/2023	GAMW56B	GW	-						X	X	X
50353853	GAMW-52-092523	9/25/2023	GAMW52	GW	-						X	X	X
50353853	GAMW-52B-092523	9/25/2023	GAMW52B	GW	-						X	X	X
50353853	GAMW-53-092823	9/28/2023	GAMW53	GW	-						X	X	X
50353853	GAMW-53B-092823	9/28/2023	GAMW53B	GW	-						X	X	X
50353853	GAMW-55R-092923	9/29/2023	GAMW55R	GW	-						X	X	X
50353853	GAMW-55B-092923	9/29/2023	GAMW55B	GW	-						X	X	X
50353853	GAMW-17B-092923	9/29/2023	GAMW17B	GW	-						X	X	X
50353853	GAMW-68-100223	10/2/2023	GAMW68	GW	-						X	X	X
50353853	GAMW-68B-100223	10/2/2023	GAMW68B	GW	-						X	X	X
50353853	FD-06-100223	10/2/2023	GAMW68B	GW	FD						X	X	X
50353853	FB-06-100223	10/2/2023	GAMW68B	WQ	FB						X	X	X
50355350	GAMW-46-100323	10/3/2023	GAMW46	GW	-	X	X	X	X	X			
50355350	GAMW-46B-100423	10/4/2023	GAMW46B	GW	-	X	X	X	X	X			
50355350	GAMW-42-100423	10/4/2023	GAMW42	GW	-	X	X	X	X	X			
50355350	GAMW-42B-100423	10/4/2023	GAMW42B	GW	-	X	X	X	X	X			

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Sample Collection and Analysis Summary
NIPSCO LLC CCR Groundwater Monitoring - R. M. Schahfer

Laboratory SDG	*Field Identification*	*Collection Date*	*Location*	*Matrix*	*QC Samples*	Anions by EPA 9056	Metals by EPA 6010 and 6020	Mercury by EPA 7470	Total Dissolved Solids by SM 2540C	pH by SM 4500-H+B	Radium-226	Radium-228	Combined Radium
50355350	GAMW-42C-100923	10/9/2023	GAMW42C	GW	-	X	X	X	X	X			
50355350	GAMW-43-100923	10/9/2023	GAMW43	GW	-	X	X	X	X	X			
50355350	GAMW-43B-100923	10/9/2023	GAMW43B	GW	-	X	X	X	X	X			
50355350	FD-07-100923	10/9/2023	GAMW43B	GW	FD	X	X	X	X	X			
50355350	GAMW-44-101023	10/10/2023	GAMW44	GW	-	X	X	X	X	X			
50355350	GAMW-44B-101023	10/10/2023	GAMW44B	GW	-	X	X	X	X	X			
50355350	GAMW-57-101023	10/10/2023	GAMW57	GW	MS/MSD	X	X	X	X	X			
50355350	FB-07-101023	10/10/2023	GAMW57	WQ	FB	X	X	X	X	X			
50355350	GAMW-57B-101123	10/11/2023	GAMW57B	GW	-	X	X	X	X	X			
50355350	GAMW-58-101123	10/11/2023	GAMW58	GW	-	X	X	X	X	X			
50355350	GAMW-58B-101123	10/11/2023	GAMW58B	GW	-	X	X	X	X	X			
50355352	GAMW-46-100323	10/3/2023	GAMW46	GW	-						X	X	X
50355352	GAMW-46B-100423	10/4/2023	GAMW46B	GW	-						X	X	X
50355352	GAMW-42-100423	10/4/2023	GAMW42	GW	-						X	X	X
50355352	GAMW-42B-100423	10/4/2023	GAMW42B	GW	-						X	X	X
50355352	GAMW-42C-100923	10/9/2023	GAMW42C	GW	-						X	X	X
50355352	GAMW-43-100923	10/9/2023	GAMW43	GW	-						X	X	X
50355352	GAMW-43B-100923	10/9/2023	GAMW43B	GW	-						X	X	X
50355352	FD-07-100923	10/9/2023	GAMW43B	GW	FD						X	X	X
50355352	GAMW-44-101023	10/10/2023	GAMW44	GW	-						X	X	X
50355352	GAMW-44B-101023	10/10/2023	GAMW44B	GW	-						X	X	X
50355352	GAMW-57-101023	10/10/2023	GAMW57	GW	MS/MSD						X	X	X
50355352	GAMW-57-101023 MS	10/10/2023	GAMW57	GW	-						X	X	X
50355352	GAMW-57-101023 MSD	10/10/2023	GAMW57	GW	-						X	X	X
50355352	FB-07-101023	10/10/2023	GAMW57	WQ	FB						X	X	X
50355352	GAMW-57B-101123	10/11/2023	GAMW57B	GW	-						X	X	X
50355352	GAMW-58-101123	10/11/2023	GAMW58	GW	-						X	X	X
50355352	GAMW-58B-101123	10/11/2023	GAMW58B	GW	-						X	X	X
50359626	GAMW-77-111323	11/13/2023	GAMW-77	GW	-	X	X	X	X	X			
50359628	GAMW-77-111324	11/14/2023	GAMW-77	GW							X	X	X

Notes:
All analyses performed by PACE at the Indianapolis, IN and Greensburg, PA laboratories.

Abbreviations:
WQ: Water Quality
FB: Field Blank
FD: Field Duplicate
GW: Ground Water
QC: Quality Control
SDG: Sample Delivery Group
MS/MSD: Matrix Spike/Matrix Spike Duplicate
EPA: Environmental Protection Agency
SM: Standard Methods

TABLE 2

Qualifier Summary Table

NIPSCO CCR Groundwater Monitoring - R. M. Schahfer

SDG	*Sample Name*	*Constituent*	*New Result*	*New RL*	*Qualifier*	*Reason*
50341962	GAMW-14-041223	pH	-	-	J	Method holding time exceedance
50341962	GAMW-14B-041223	pH	-	-	J	Method holding time exceedance
50341962	GAMW-01-041323	pH	-	-	J	Method holding time exceedance
50341962	GAMW-01B-041323	pH	-	-	J	Method holding time exceedance
50341962	GAMW-03-041423	pH	-	-	J	Method holding time exceedance
50341962	GAMW-03B-041423	pH	-	-	J	Method holding time exceedance
50341962	GAMW-12-041423	pH	-	-	J	Method holding time exceedance
50341962	GAMW-12B-041423	pH	-	-	J	Method holding time exceedance
50341962	GAMW-13-041423	pH	-	-	J	Method holding time exceedance
50341962	GAMW-13B-041423	pH	-	-	J	Method holding time exceedance
50341962	GAMW-51-041523	pH	-	-	J	Method holding time exceedance
50341962	GAMW-51B-041523	pH	-	-	J	Method holding time exceedance
50341962	GAMW-59-041523	pH	-	-	J	Method holding time exceedance
50341962	GAMW-59B-041523	pH	-	-	J	Method holding time exceedance
50341962	FD-01-041923	pH	-	-	J	Method holding time exceedance
50341962	GAMW-09-041923	pH	-	-	J	Method holding time exceedance
50341962	GAMW-09B-041923	pH	-	-	J	Method holding time exceedance
50341962	GAMW-17-041923	pH	-	-	J	Method holding time exceedance
50341962	GAMW-18-041923	pH	-	-	J	Method holding time exceedance
50341962	FD-02-042023	pH	-	-	J	Method holding time exceedance
50341962	GAMW-16R-042023	pH	-	-	J	Method holding time exceedance
50341962	GAMW-17B-042023	pH	-	-	J	Method holding time exceedance
50341962	GAMW-18B-042023	pH	-	-	J	Method holding time exceedance
50341962	GAMW-60-042023	pH	-	-	J	Method holding time exceedance
50341962	GAMW-60B-042023	pH	-	-	J	Method holding time exceedance
50341962	GAMW-08-042123	pH	-	-	J	Method holding time exceedance
50341962	GAMW-08B-042123	pH	-	-	J	Method holding time exceedance
50341962	GAMW-16BR-042123	pH	-	-	J	Method holding time exceedance
50341962	GAMW-56-042123	pH	-	-	J	Method holding time exceedance
50341962	GAMW-56B-042123	pH	-	-	J	Method holding time exceedance
50341962	GAMW-53-042423	pH	-	-	J	Method holding time exceedance
50341962	GAMW-53B-042423	pH	-	-	J	Method holding time exceedance
50341962	FD-03-042523	pH	-	-	J	Method holding time exceedance
50341962	GAMW-52-042523	pH	-	-	J	Method holding time exceedance
50341962	GAMW-52B-042523	pH	-	-	J	Method holding time exceedance
50341962	GAMW-54-042623	pH	-	-	J	Method holding time exceedance
50341962	GAMW-54B-042623	pH	-	-	J	Method holding time exceedance
50341962	GAMW-55B-042623	pH	-	-	J	Method holding time exceedance
50341962	GAMW-55R-042623	pH	-	-	J	Method holding time exceedance
50341962	FD-04-050123	pH	-	-	J	Method holding time exceedance
50341962	GAMW-68-050123	pH	-	-	J	Method holding time exceedance
50341962	GAMW-68B-050123	pH	-	-	J	Method holding time exceedance
50341962	FD-01-041923	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-09-041923	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-09B-041923	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-17-041923	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-18-041923	Chromium	0.002	-	U	Field blank contamination
50341962	FD-02-042023	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-16R-042023	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-17B-042023	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-18B-042023	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-60-042023	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-60B-042023	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-54-042623	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-54B-042623	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-55B-042623	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-55R-042623	Chromium	0.002	-	U	Field blank contamination
50341962	FD-04-050123	Antimony	0.001	-	U	Field blank contamination
50341962	GAMW-68-050123	Antimony	0.001	-	U	Field blank contamination
50341962	GAMW-68B-050123	Antimony	0.001	-	U	Field blank contamination
50341962	FD-04-050123	Chromium	0.002	-	U	Field blank contamination

TABLE 2

Qualifier Summary Table

NIPSCO CCR Groundwater Monitoring - R. M. Schahfer

SDG	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
50341962	GAMW-68-050123	Chromium	0.002	-	U	Field blank contamination
50341962	GAMW-68B-050123	Chromium	0.002	-	U	Field blank contamination
50341961	GAMW-01-041323	Radium-226	-	-	UJ	MS recovery below QC criteria
50341961	GAMW-01-041323	Radium-228	-	-	UJ	MS/MSD recovery below QC criteria
50341961	GAMW-01-041323	Total Radium	-	-	UJ	MS/MSD recovery below QC criteria
50341961	GAMW-01B-041323	Radium-226	-	-	J-	MS recovery below QC criteria
50341961	GAMW-01B-041323	Radium-228	-	-	J-	MS/MSD recovery below QC criteria
50341961	GAMW-01B-041323	Total Radium	-	-	J-	MS/MSD recovery below QC criteria
50341961	GAMW-17B-042023	Radium-228	-	-	UJ	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-17B-042023	Total Radium	-	-	UJ	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-18B-042023	Radium-228	-	-	J-	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-18B-042023	Total Radium	-	-	J-	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-60-042023	Radium-228	-	-	J-	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-60-042023	Total Radium	-	-	UJ	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-60B-042023	Radium-228	-	-	J-	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-60B-042023	Total Radium	-	-	J-	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-16R-042023	Radium-228	-	-	UJ	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-16R-042023	Total Radium	-	-	UJ	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	FD-02-042023	Radium-228	-	-	UJ	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	FD-02-042023	Total Radium	-	-	UJ	MS recovery below QC criteria, MS/MSD RPD above QC criteria
50341961	GAMW-52-042523	Radium-228	-	-	UJ	MS/MSD RPD above QC criteria
50341961	GAMW-52-042523	Total Radium	-	-	UJ	MS/MSD RPD above QC criteria
50341961	GAMW-52B-042523	Radium-228	-	-	J	MS/MSD RPD above QC criteria
50341961	GAMW-52B-042523	Total Radium	-	-	J	MS/MSD RPD above QC criteria
50341961	FD-03-042523	Radium-228	-	-	UJ	MS/MSD RPD above QC criteria
50341961	FD-03-042523	Total Radium	-	-	UJ	MS/MSD RPD above QC criteria
50343391	GAMW-46-042723	pH	-	-	J	Method holding time exceedance
50343391	GAMW-46B-042723	pH	-	-	J	Method holding time exceedance
50343391	GAMW-42-050223	pH	-	-	J	Method holding time exceedance
50343391	GAMW-42B-050223	pH	-	-	J	Method holding time exceedance
50343391	GAMW-42C-050323	pH	-	-	J	Method holding time exceedance
50343391	GAMW-43-050323	pH	-	-	J	Method holding time exceedance
50343391	GAMW-43B-050323	pH	-	-	J	Method holding time exceedance
50343391	FD-05-050323	pH	-	-	J	Method holding time exceedance
50343391	GAMW-44-050424	pH	-	-	J	Method holding time exceedance
50343391	GAMW-44B-050424	pH	-	-	J	Method holding time exceedance
50343391	GAMW-57-050424	pH	-	-	J	Method holding time exceedance
50343391	GAMW-57B-050523	pH	-	-	J	Method holding time exceedance
50343391	GAMW-58-050523	pH	-	-	J	Method holding time exceedance
50343391	GAMW-58B-050523	pH	-	-	J	Method holding time exceedance
50343391	GAMW-44B-050423	Barium	-	-	J+	Field blank contamination
50343391	GAMW-44B-050423	Chromium	0.002	-	U	Field blank contamination
50343391	GAMW-57-050423	Chromium	0.002	-	U	Field blank contamination
50343391	GAMW-57B-050523	Selenium	-	-	UJ	MS/MSD %R below QC limits
50343391	GAMW-58-050523	Selenium	-	-	J-	MS/MSD %R below QC limits
50343391	GAMW-58B-050523	Selenium	-	-	UJ	MS/MSD %R below QC limits
50353874	FD-03-091923	pH	-	-	J	Method holding time exceedance
50353874	FD-04-092123	pH	-	-	J	Method holding time exceedance
50353874	FD-05-092223	pH	-	-	J	Method holding time exceedance
50353874	FD-06-100223	pH	-	-	J	Method holding time exceedance
50353874	GAMW-01-091323	pH	-	-	J	Method holding time exceedance
50353874	GAMW-01B-091323	pH	-	-	J	Method holding time exceedance
50353874	GAMW-03-091523	pH	-	-	J	Method holding time exceedance

TABLE 2

Qualifier Summary Table

NIPSCO CCR Groundwater Monitoring - R. M. Schahfer

SDG	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
50353874	GAMW-03B-091523	pH	-	-	J	Method holding time exceedance
50353874	GAMW-08-091923	pH	-	-	J	Method holding time exceedance
50353874	GAMW-08B-091923	pH	-	-	J	Method holding time exceedance
50353874	GAMW-09-092123	pH	-	-	J	Method holding time exceedance
50353874	GAMW-09B-092123	pH	-	-	J	Method holding time exceedance
50353874	GAMW-12-091523	pH	-	-	J	Method holding time exceedance
50353874	GAMW-12B-091523	pH	-	-	J	Method holding time exceedance
50353874	GAMW-13-091423	pH	-	-	J	Method holding time exceedance
50353874	GAMW-13B-091423	pH	-	-	J	Method holding time exceedance
50353874	GAMW-14-091423	pH	-	-	J	Method holding time exceedance
50353874	GAMW-14B-091423	pH	-	-	J	Method holding time exceedance
50353874	GAMW-16BR-092023	pH	-	-	J	Method holding time exceedance
50353874	GAMW-16R-092023	pH	-	-	J	Method holding time exceedance
50353874	GAMW-17-092023	pH	-	-	J	Method holding time exceedance
50353874	GAMW-17B-100223	pH	-	-	J	Method holding time exceedance
50353874	GAMW-18-092123	pH	-	-	J	Method holding time exceedance
50353874	GAMW-18B-092223	pH	-	-	J	Method holding time exceedance
50353874	GAMW-51-091823	pH	-	-	J	Method holding time exceedance
50353874	GAMW-51B-091923	pH	-	-	J	Method holding time exceedance
50353874	GAMW-52-092523	pH	-	-	J	Method holding time exceedance
50353874	GAMW-52B-092523	pH	-	-	J	Method holding time exceedance
50353874	GAMW-53-092823	pH	-	-	J	Method holding time exceedance
50353874	GAMW-53B-092823	pH	-	-	J	Method holding time exceedance
50353874	GAMW-54-092523	pH	-	-	J	Method holding time exceedance
50353874	GAMW-54B-092523	pH	-	-	J	Method holding time exceedance
50353874	GAMW-55B-092923	pH	-	-	J	Method holding time exceedance
50353874	GAMW-55R-092923	pH	-	-	J	Method holding time exceedance
50353874	GAMW-56-092223	pH	-	-	J	Method holding time exceedance
50353874	GAMW-56B-092523	pH	-	-	J	Method holding time exceedance
50353874	GAMW-59-091923	pH	-	-	J	Method holding time exceedance
50353874	GAMW-59B-092023	pH	-	-	J	Method holding time exceedance
50353874	GAMW-60-091923	pH	-	-	J	Method holding time exceedance
50353874	GAMW-60B-091923	pH	-	-	J	Method holding time exceedance
50353874	GAMW-68-100223	pH	-	-	J	Method holding time exceedance
50353874	GAMW-68B-100223	pH	-	-	J	Method holding time exceedance
50353874	FD-06-100223	Lead	0.001	-	U	Field blank contamination
50353874	GAMW-17B-100223	Lead	0.001	-	U	Field blank contamination
50353874	GAMW-52B-092523	Lead	0.001	-	U	Field blank contamination
50353874	GAMW-54-092523	Lead	0.001	-	U	Field blank contamination
50353874	GAMW-54B-092523	Lead	0.001	-	U	Field blank contamination
50353874	GAMW-68-100223	Lead	0.001	-	U	Field blank contamination
50353874	GAMW-68B-100223	Lead	0.001	-	U	Field blank contamination
50353874	FD-03-091923	Chromium	0.002	-	U	Field blank contamination
50353874	FD-04-092123	Chromium	0.002	-	U	Field blank contamination
50353874	FD-06-100223	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-08-091923	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-08B-091923	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-09-092123	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-09B-092123	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-17B-100223	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-18-092123	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-51B-091923	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-52-092523	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-52B-092523	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-54-092523	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-54B-092523	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-56B-092523	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-59-091923	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-60-091923	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-60B-091923	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-68-100223	Chromium	0.002	-	U	Field blank contamination

TABLE 2

Qualifier Summary Table

NIPSCO CCR Groundwater Monitoring - R. M. Schahfer

SDG	*Sample Name*	*Constituent*	*New Result*	*New RL*	*Qualifier*	*Reason*
50353874	GAMW-68B-100223	Chromium	0.002	-	U	Field blank contamination
50353874	GAMW-52B-092523	Boron	0.1	-	U	Field blank contamination
50353853	GAMW-55B-092923	Radium-228	-	-	U	Method blank contamination
50353853	GAMW-17B-100223	Radium-228	-	-	U	Method blank contamination
50353853	GAMW-17B-100223	Total Radium	-	-	U	Method blank contamination
50353853	GAMW-68B-100223	Radium-228	-	-	U	Method blank contamination
50353853	GAMW-13-091423	Radium-228	-	-	J	MS/MSD RPD above QC criteria
50353853	GAMW-13-091423	Total Radium	-	-	J	MS/MSD RPD above QC criteria
50353853	GAMW-14-091423	Radium-228	-	-	J	MS/MSD RPD above QC criteria
50353853	GAMW-14B-091423	Radium-228	-	-	J	MS/MSD RPD above QC criteria
50353853	GAMW-13B-091423	Radium-228	-	-	J	MS/MSD RPD above QC criteria
50353853	GAMW-14-091423	Total Radium	-	-	UJ	MS/MSD RPD above QC criteria
50353853	GAMW-14B-091423	Total Radium	-	-	J	MS/MSD RPD above QC criteria
50353853	GAMW-13B-091423	Total Radium	-	-	J	MS/MSD RPD above QC criteria
50355350	GAMW-46-100323	pH	-	-	J	Method holding time exceedance
50355350	GAMW-46B-100423	pH	-	-	J	Method holding time exceedance
50355350	GAMW-42-100423	pH	-	-	J	Method holding time exceedance
50355350	GAMW-42B-100423	pH	-	-	J	Method holding time exceedance
50355350	GAMW-42C-100923	pH	-	-	J	Method holding time exceedance
50355350	GAMW-43-100923	pH	-	-	J	Method holding time exceedance
50355350	GAMW-43B-100923	pH	-	-	J	Method holding time exceedance
50355350	FD-07-100923	pH	-	-	J	Method holding time exceedance
50355350	GAMW-44-101023	pH	-	-	J	Method holding time exceedance
50355350	GAMW-44B-101023	pH	-	-	J	Method holding time exceedance
50355350	GAMW-57-101023	pH	-	-	J	Method holding time exceedance
50355350	GAMW-57B-101123	pH	-	-	J	Method holding time exceedance
50355350	GAMW-58-101123	pH	-	-	J	Method holding time exceedance
50355350	GAMW-58B-101123	pH	-	-	J	Method holding time exceedance
50355350	GAMW-44-101023	Chromium	0.002	-	U	Field blank contamination
50355350	GAMW-44B-101023	Chromium	0.002	-	U	Field blank contamination
50355350	GAMW-57-101023	Chromium	0.002	-	U	Field blank contamination
50355352	GAMW-43B-100923	Radium-226	-	-	J	Field duplicate RPD greater than acceptance criteria
50355352	FD-07-100923	Radium-226	-	-	UJ	Field duplicate RPD greater than acceptance criteria
50359626	GAMW-77-111323	pH	-	-	J	Method holding time exceedance
All SDGs	All Samples	-	-	-	-	Laboratory applied U-qualifiers indicating non-detect results and J-qualifiers indicating estimated results below the reporting limit are retained unless other qualification is indicated in this table. All other qualifiers are removed.

Prepared by: GRD
Checked by: DFSC
Reviewed by: AH

Abbreviations:

RL: Reporting Limit

QC: Quality Control

MDL: method detection limit

MS/MSD: Matrix spike/matrix spike duplicate

%R: Percent recovery

QC: Quality control

RPD: Relative percent difference

Qualifier Definitions:

J: Estimated Result

J+: Estimated and potentially biased high

J-: Estimated and potentially biased low

U: Non-detect Result

UJ: Estimated and non-detect

APPENDIX F

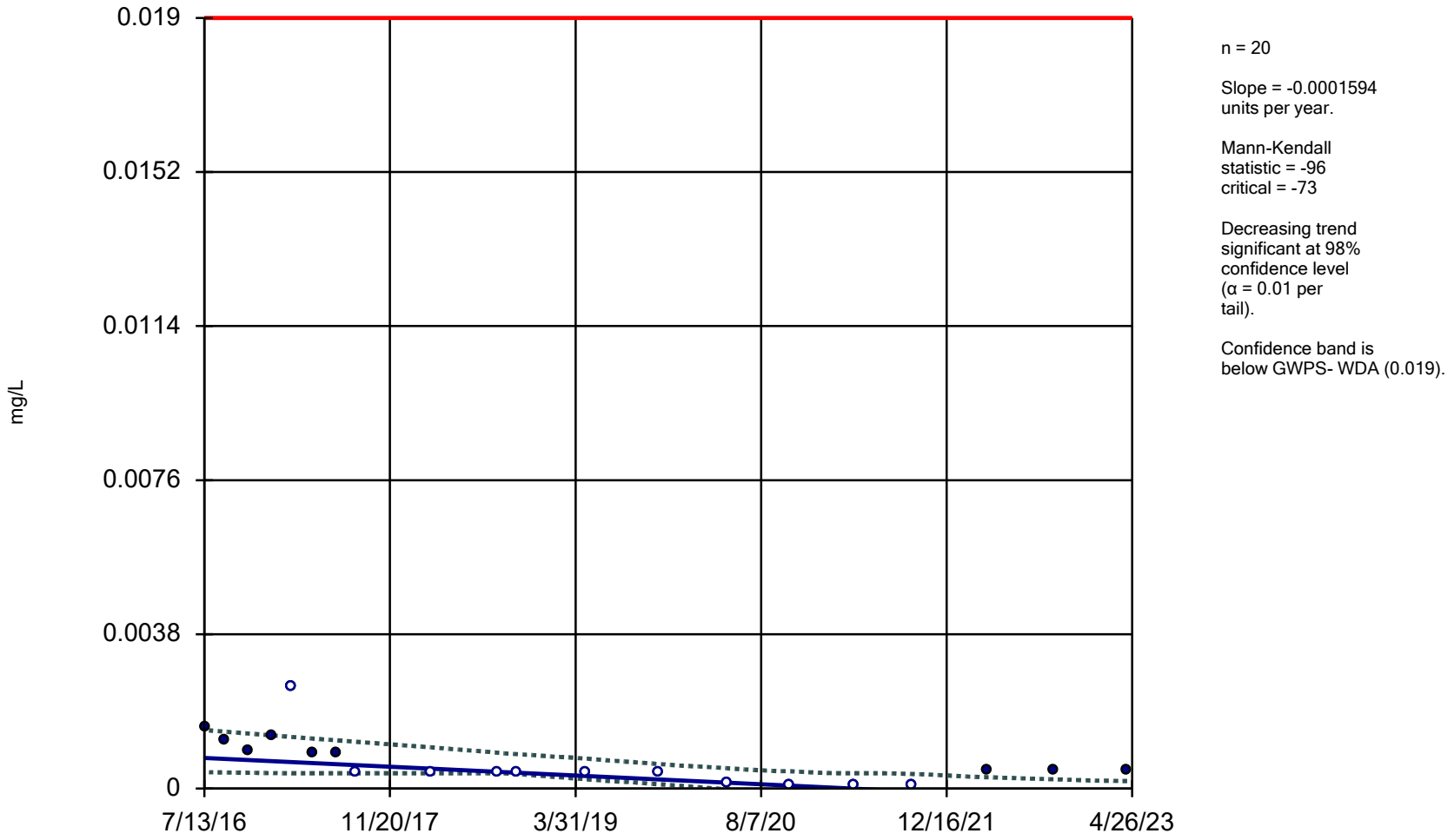
2023 Statistical Analysis

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GAMW03B (bg)



n = 20

Slope = -0.0001594 units per year.

Mann-Kendall statistic = -96
critical = -73

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below GWPS- WDA (0.019).

Constituent: Arsenic Analysis Run 8/2/2023 11:04 AM View: CCR Assessment Background Wells

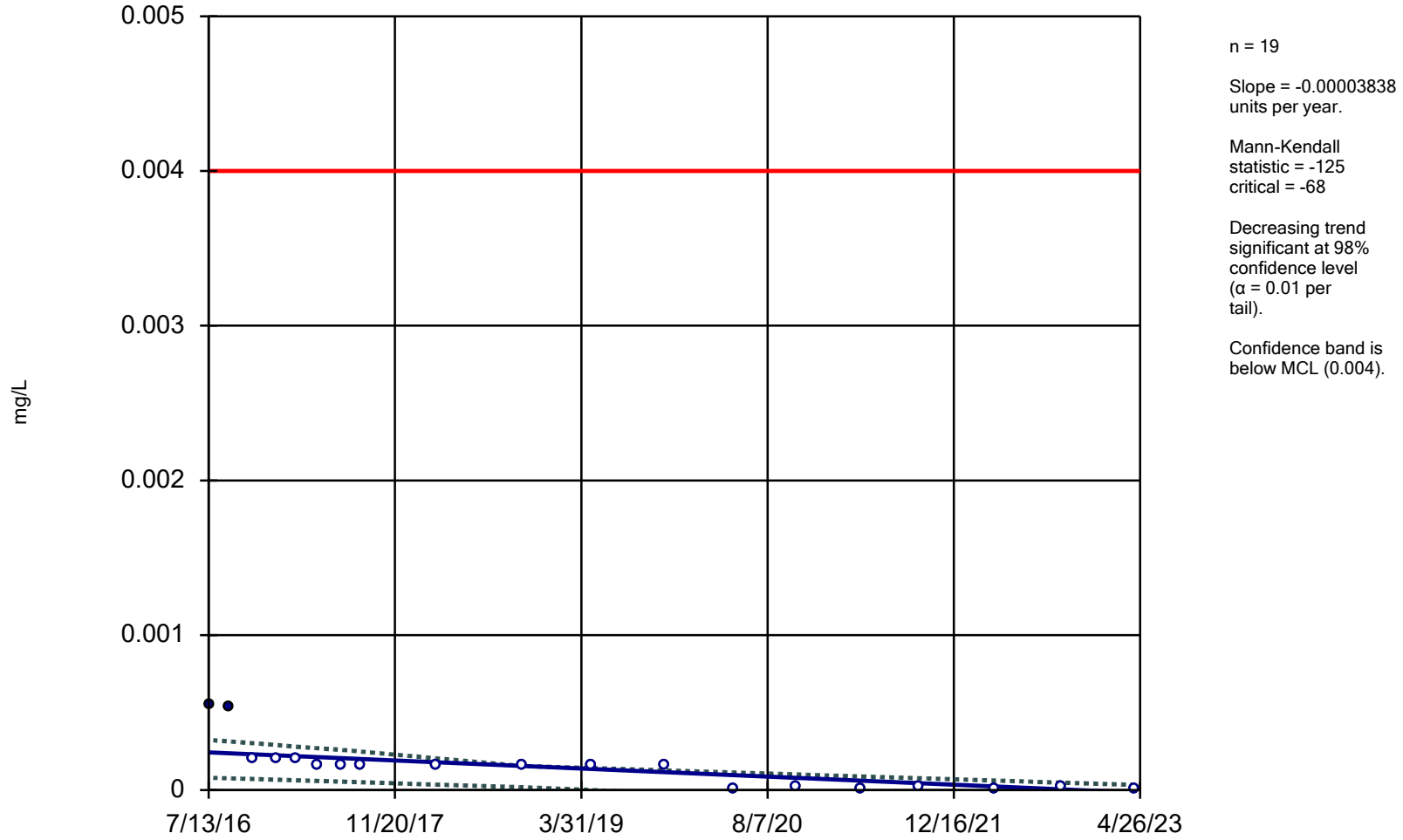
R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GAMW03 (bg)



n = 19

Slope = -0.00003838 units per year.

Mann-Kendall statistic = -125 critical = -68

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below MCL (0.004).

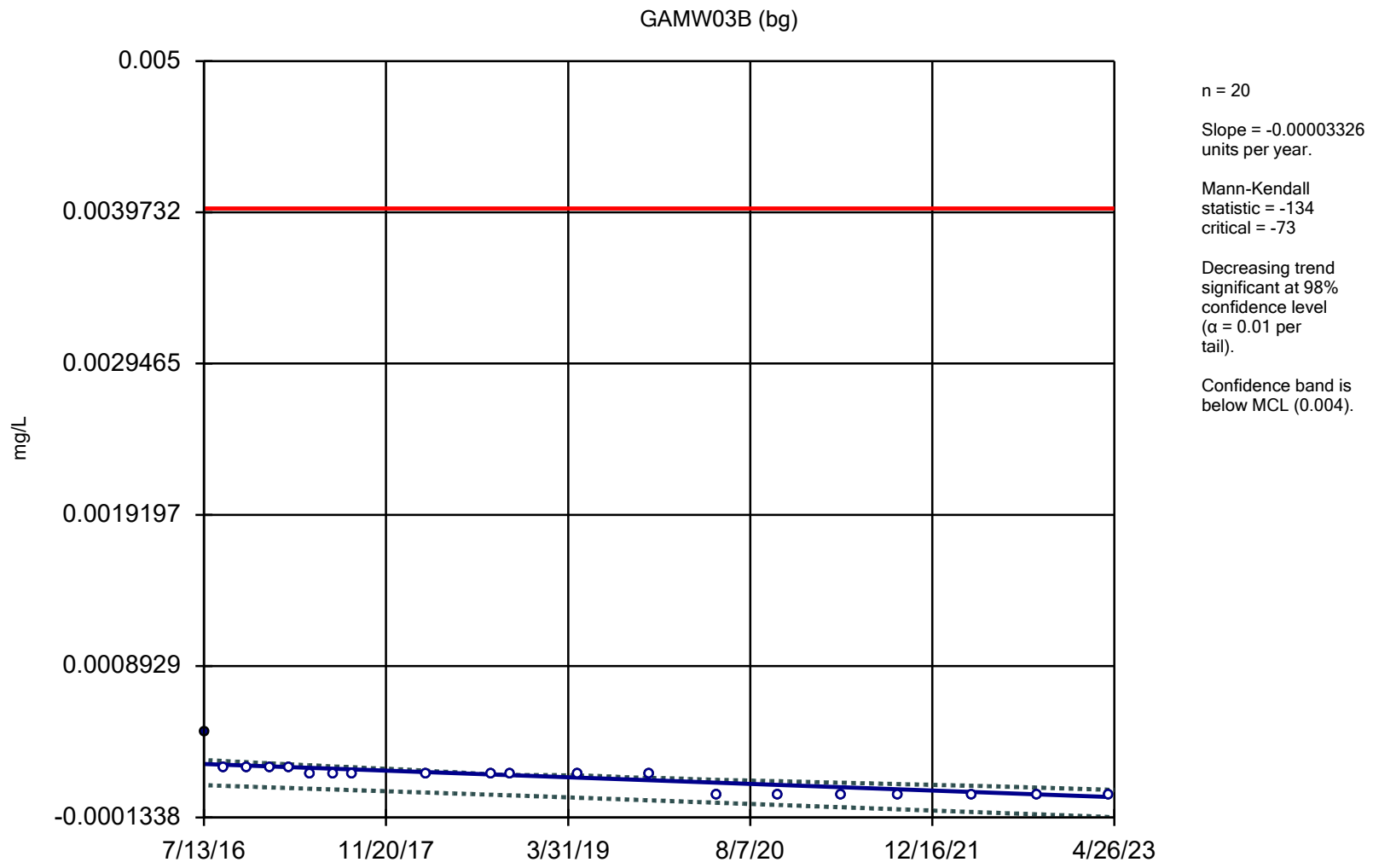
Constituent: Beryllium Analysis Run 8/2/2023 11:04 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band



Constituent: Beryllium Analysis Run 8/2/2023 11:04 AM View: CCR Assessment Background Wells

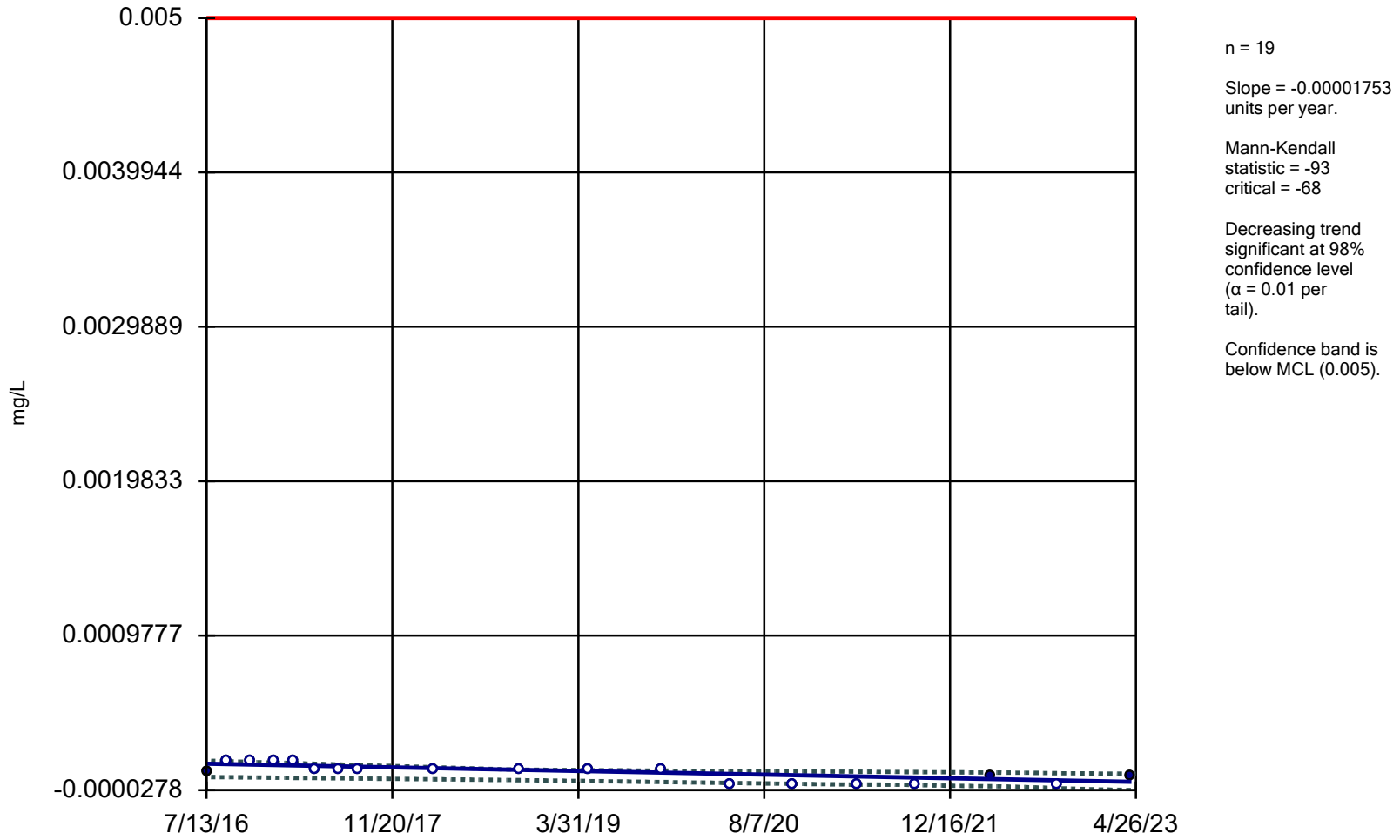
R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GAMW03 (bg)



n = 19

Slope = -0.00001753 units per year.

Mann-Kendall statistic = -93
critical = -68

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below MCL (0.005).

Constituent: Cadmium Analysis Run 8/2/2023 11:04 AM View: CCR Assessment Background Wells

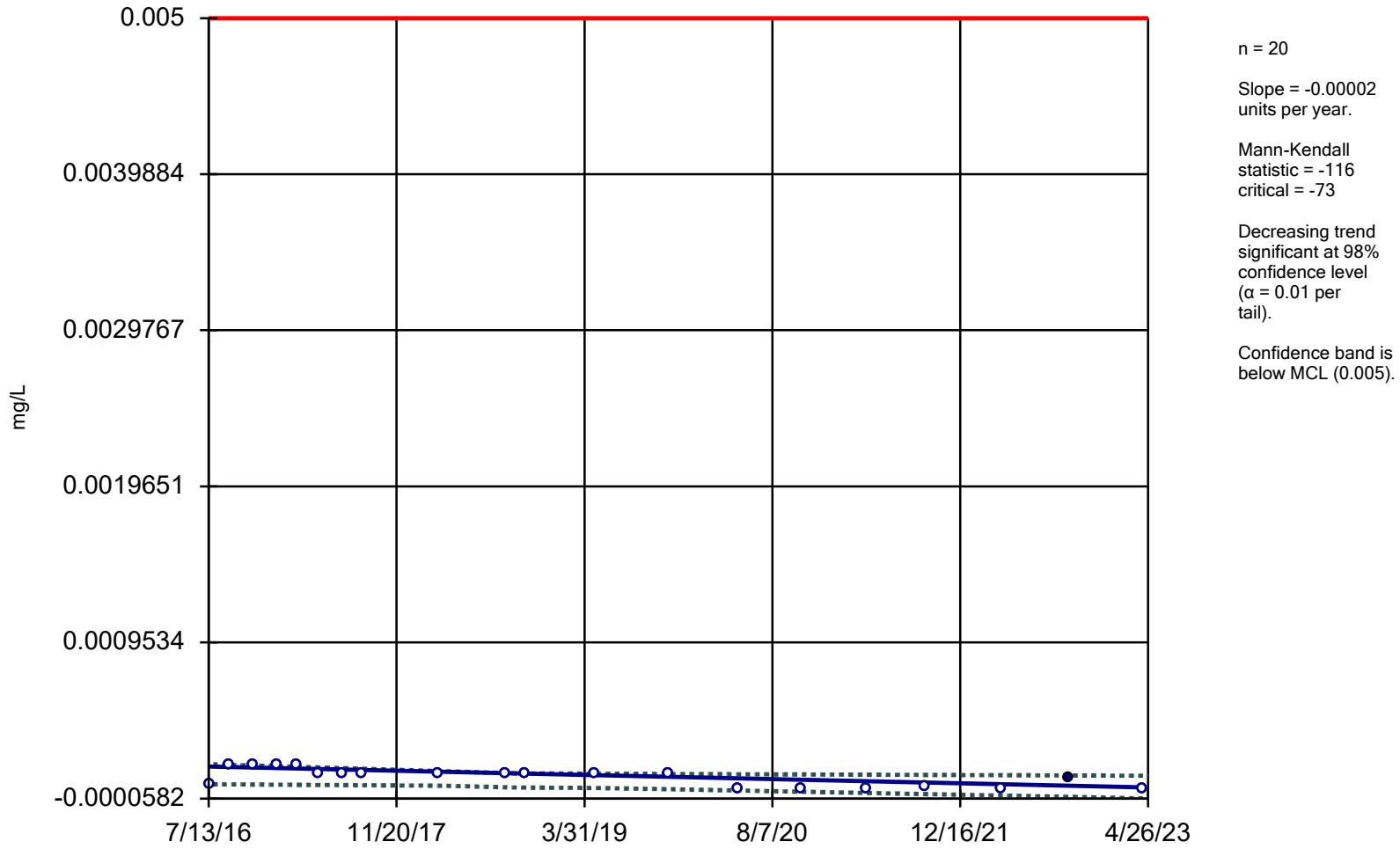
R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GAMW03B (bg)



n = 20

Slope = -0.00002 units per year.

Mann-Kendall statistic = -116
critical = -73

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below MCL (0.005).

Constituent: Cadmium Analysis Run 8/2/2023 11:04 AM View: CCR Assessment Background Wells

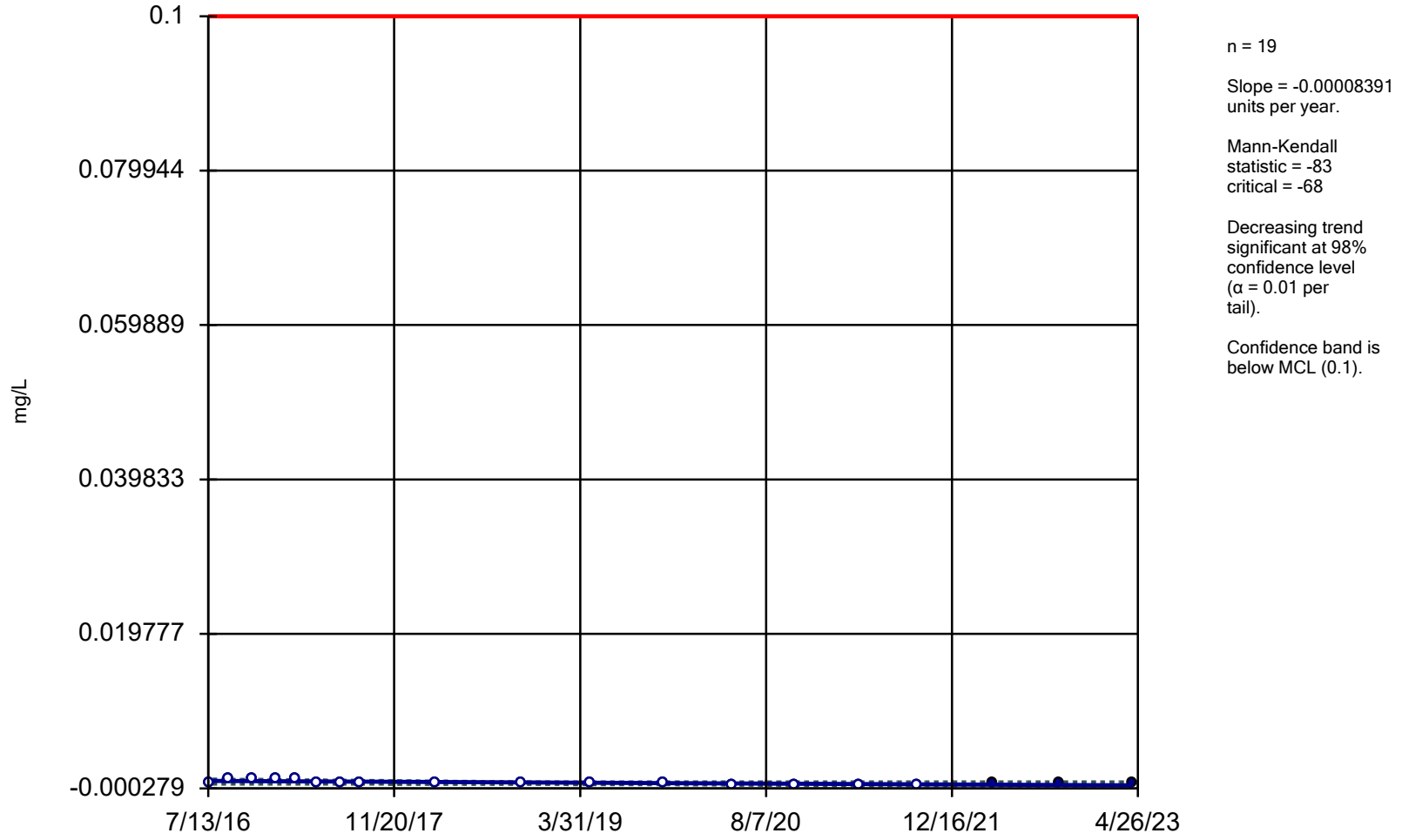
R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GAMW03 (bg)



n = 19

Slope = -0.00008391 units per year.

Mann-Kendall statistic = -83
critical = -68

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below MCL (0.1).

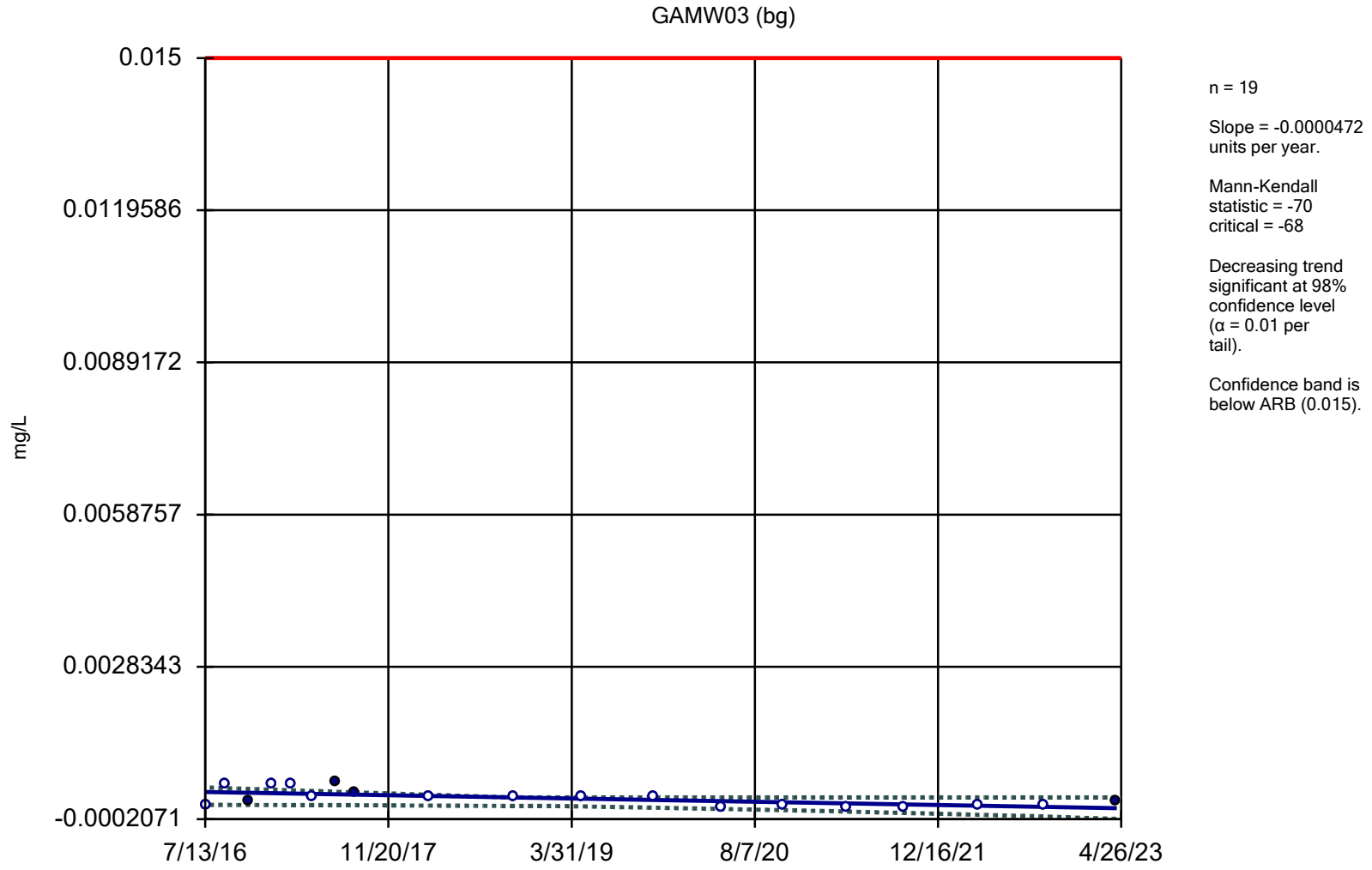
Constituent: Chromium Analysis Run 8/2/2023 11:05 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band



Constituent: Lead Analysis Run 8/2/2023 11:05 AM View: CCR Assessment Background Wells

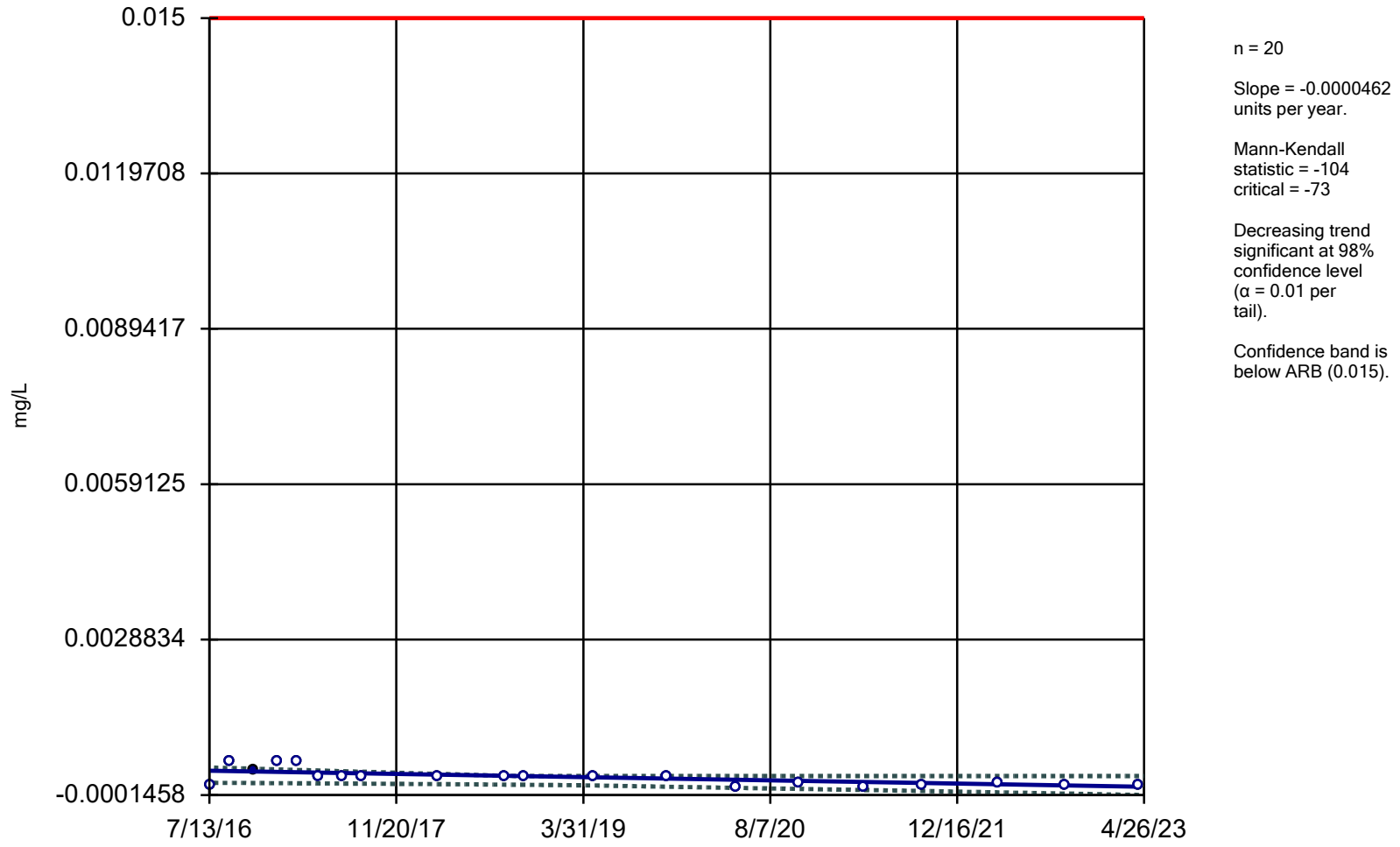
R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GAMW03B (bg)



n = 20

Slope = -0.0000462 units per year.

Mann-Kendall statistic = -104
critical = -73

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below ARB (0.015).

Constituent: Lead Analysis Run 8/2/2023 11:05 AM View: CCR Assessment Background Wells

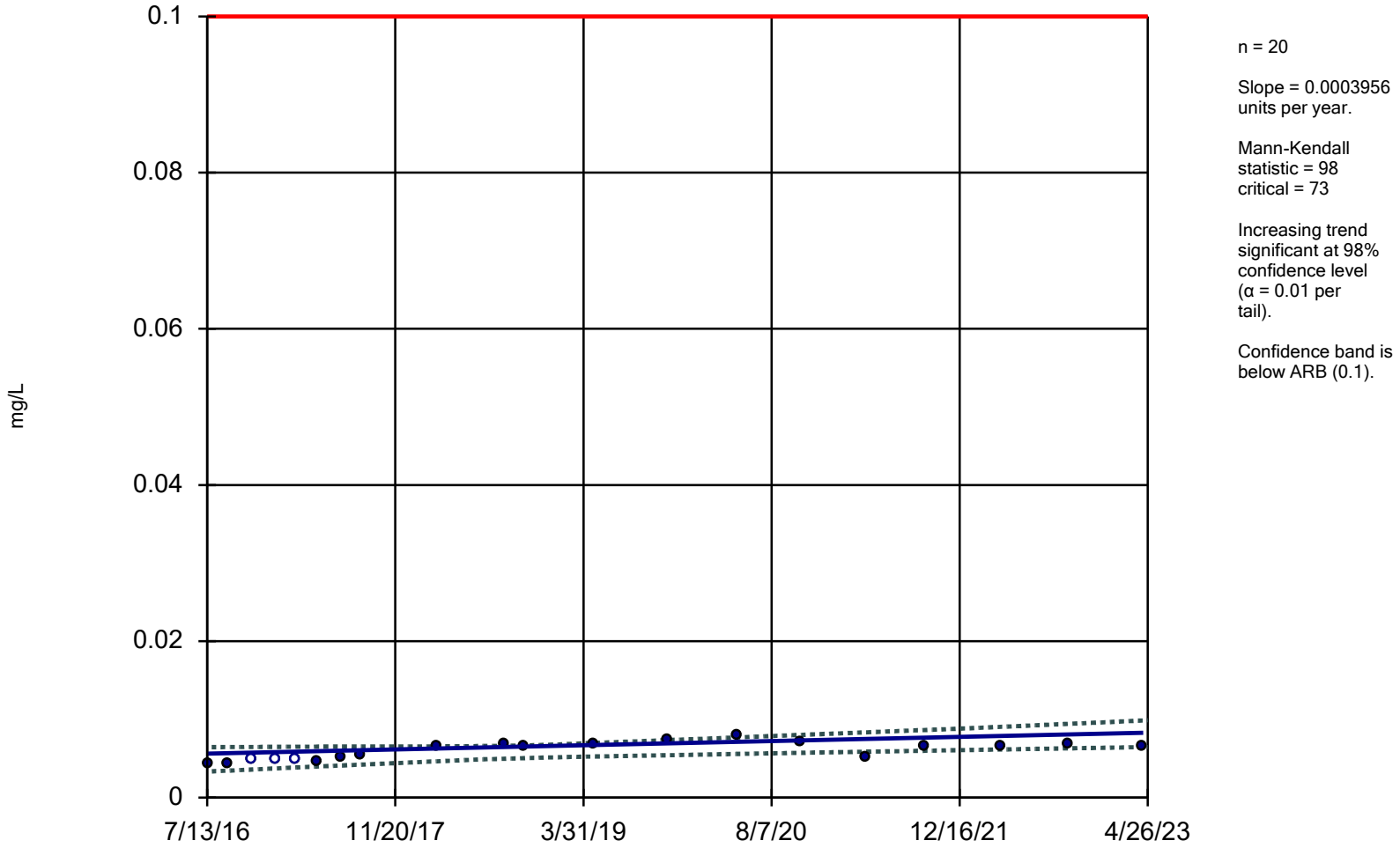
R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

GAMW03B (bg)



n = 20

Slope = 0.0003956 units per year.

Mann-Kendall statistic = 98
critical = 73

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Confidence band is below ARB (0.1).

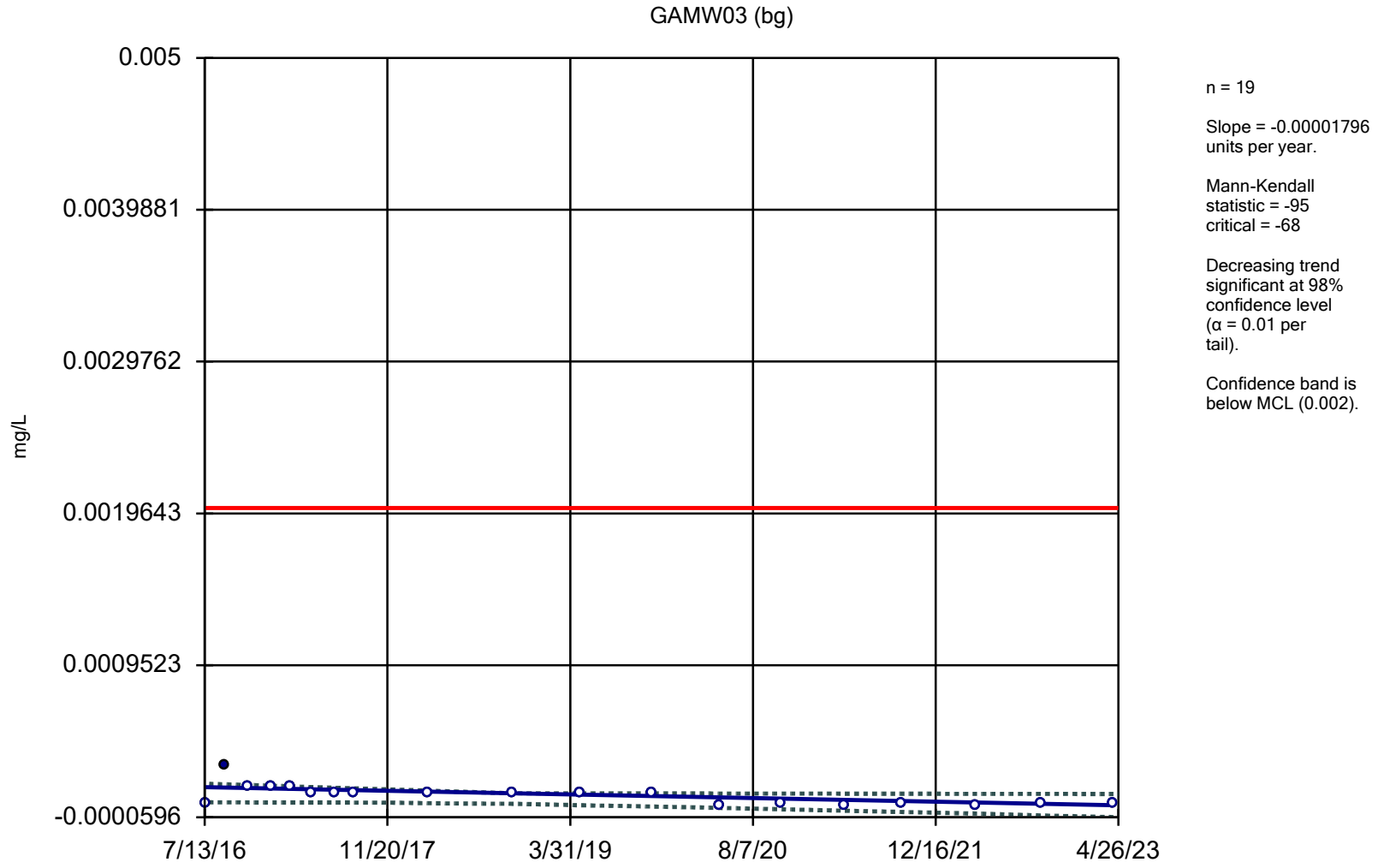
Constituent: Molybdenum Analysis Run 8/2/2023 11:05 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band



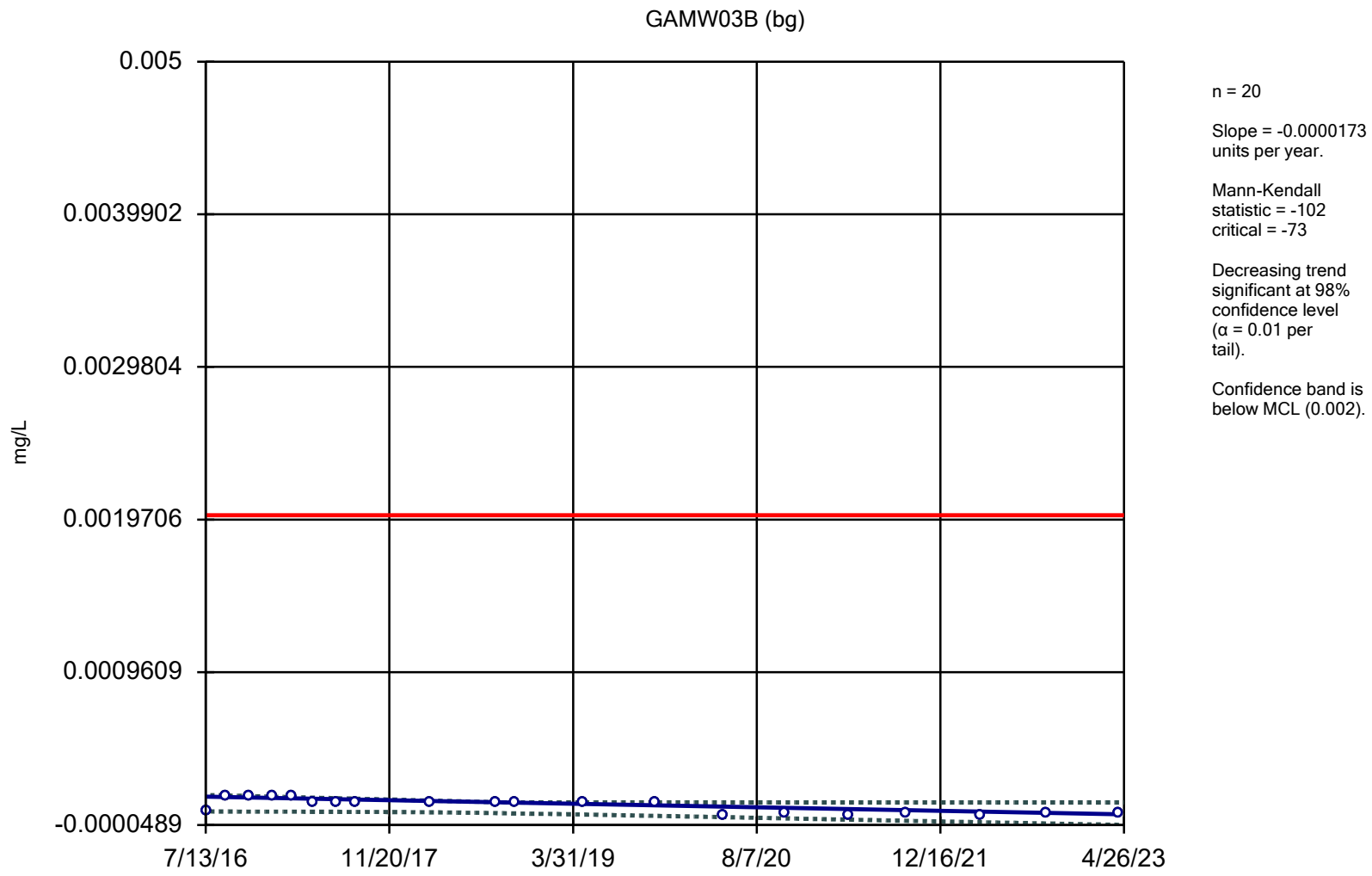
Constituent: Thallium Analysis Run 8/2/2023 11:05 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

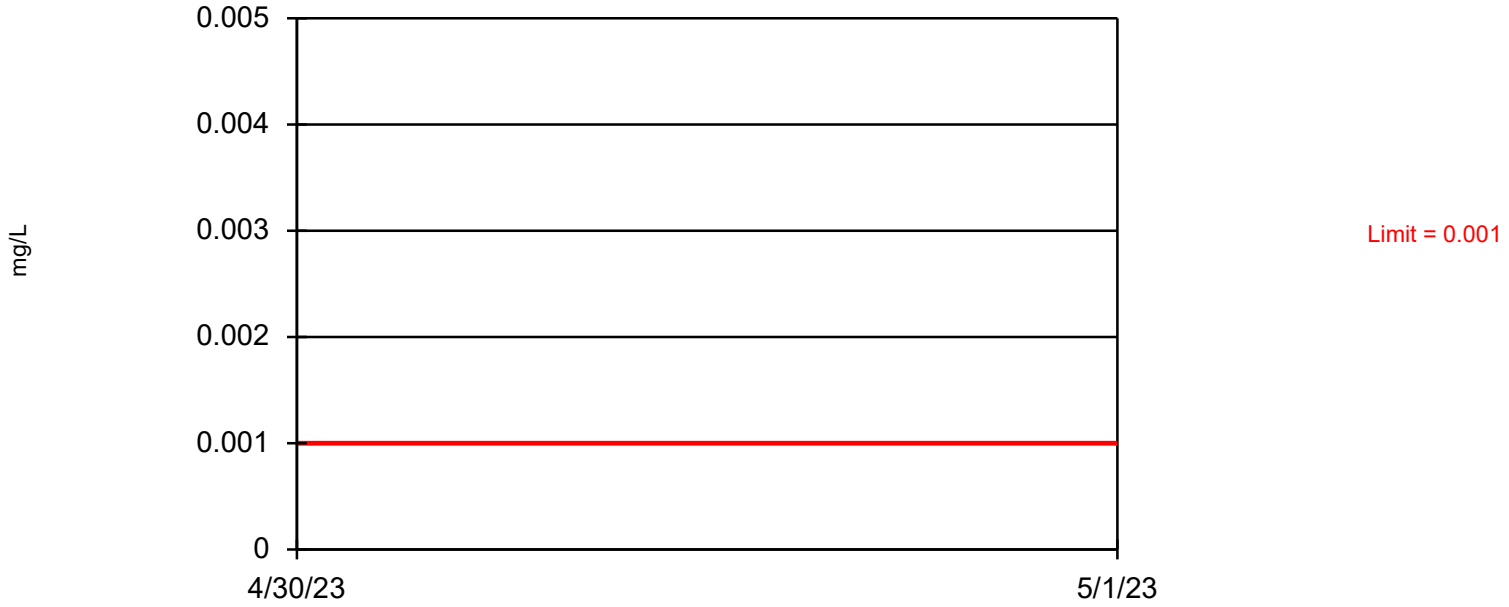


Constituent: Thallium Analysis Run 8/2/2023 11:05 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



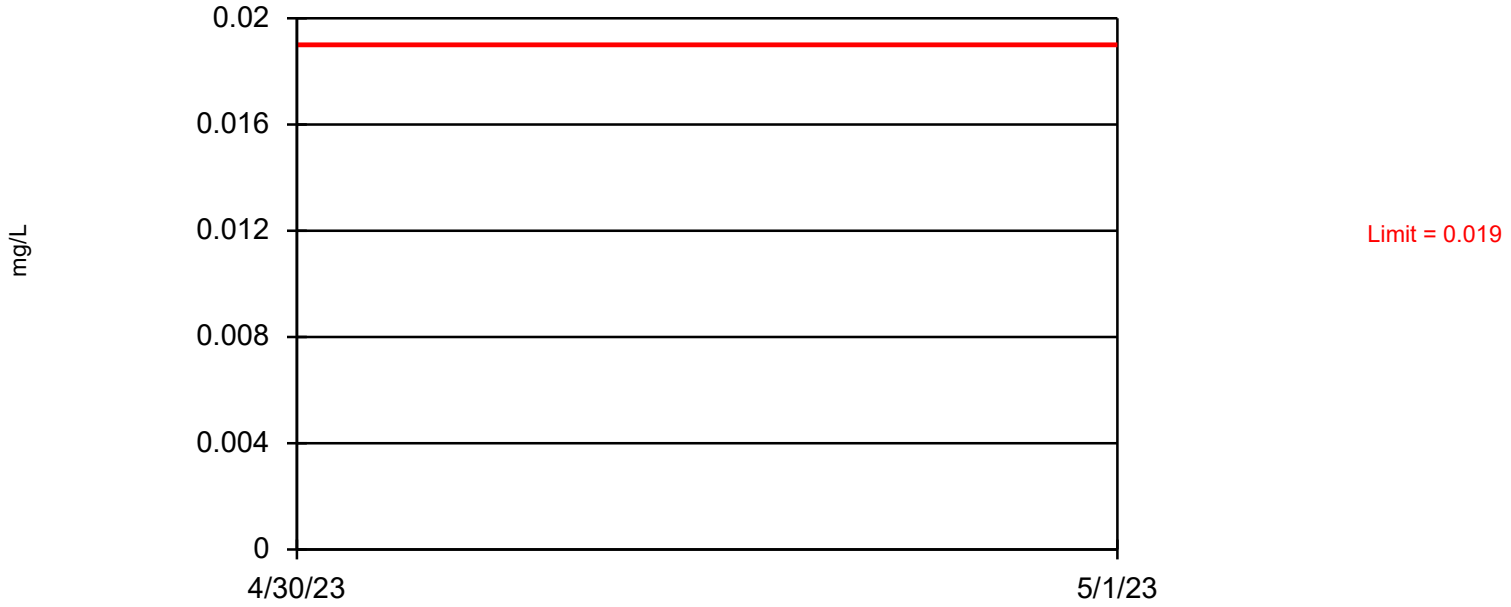
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 84.31% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Antimony Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



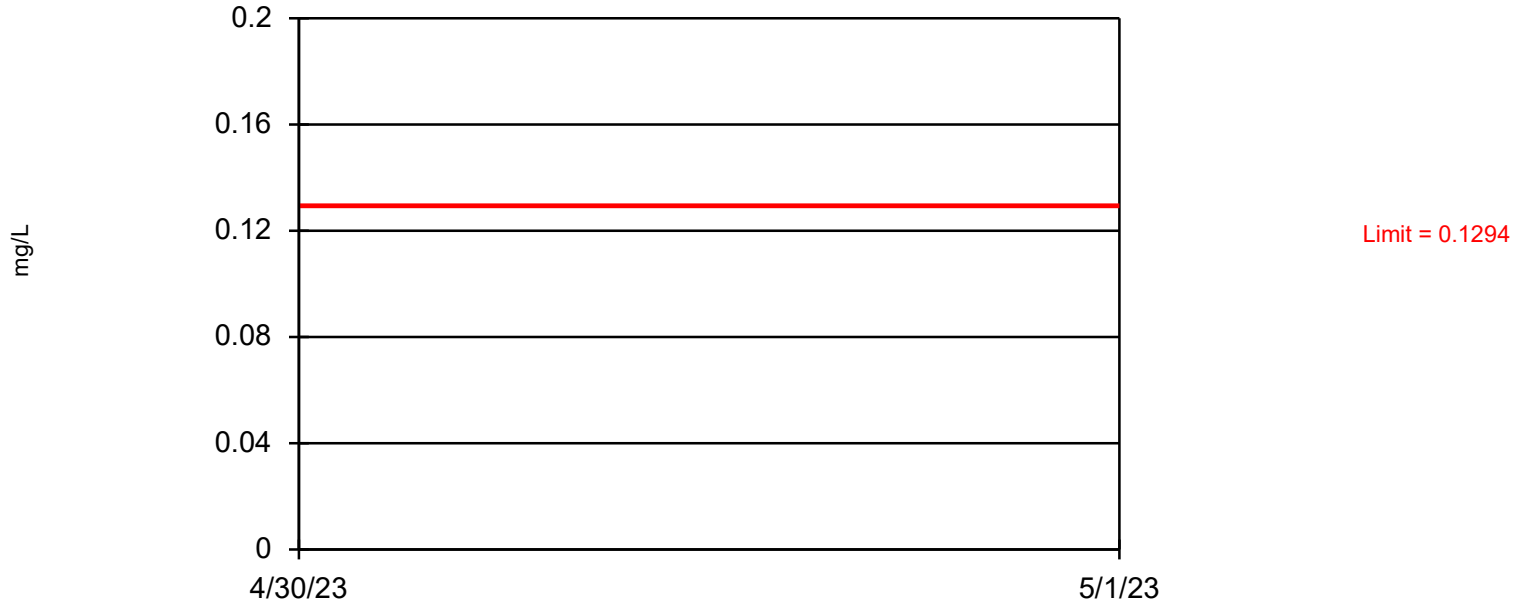
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 51 background values. 33.33% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Arsenic Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Parametric



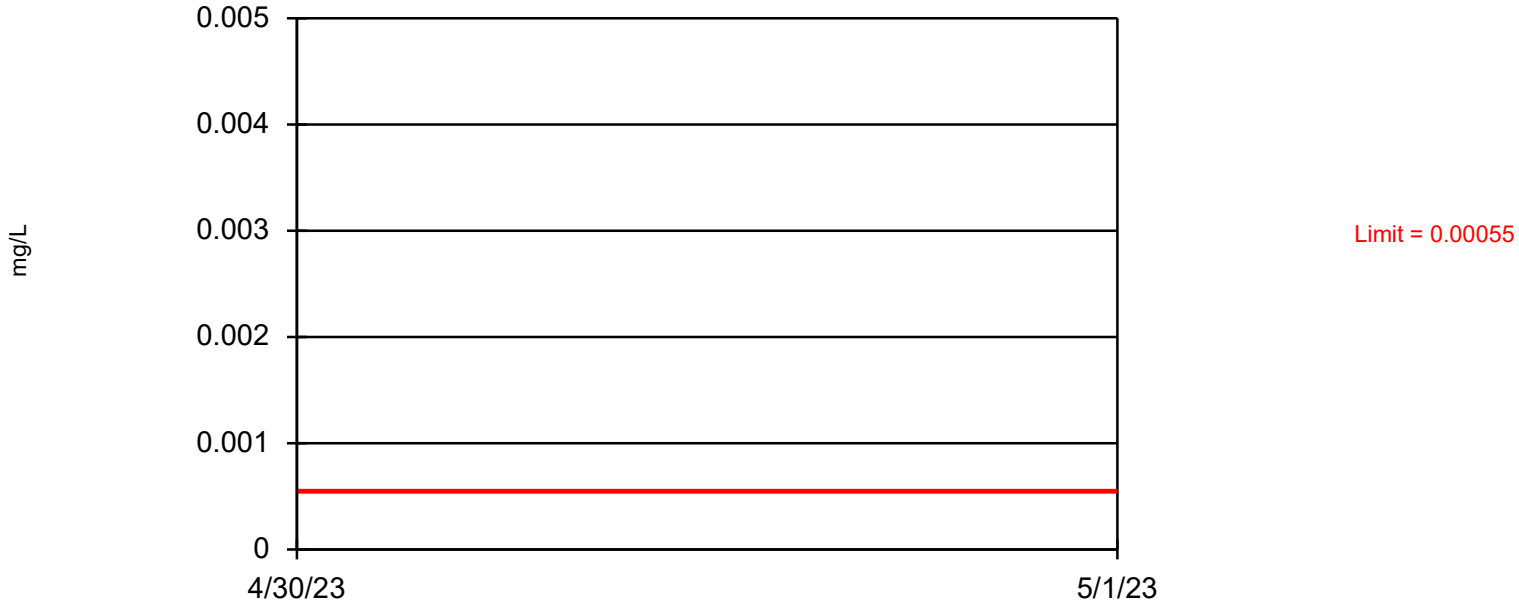
95% coverage. Background Data Summary: Mean=0.09839, Std. Dev.=0.01507, n=51. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9589, critical = 0.954. Report alpha = 0.05.

Constituent: Barium Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



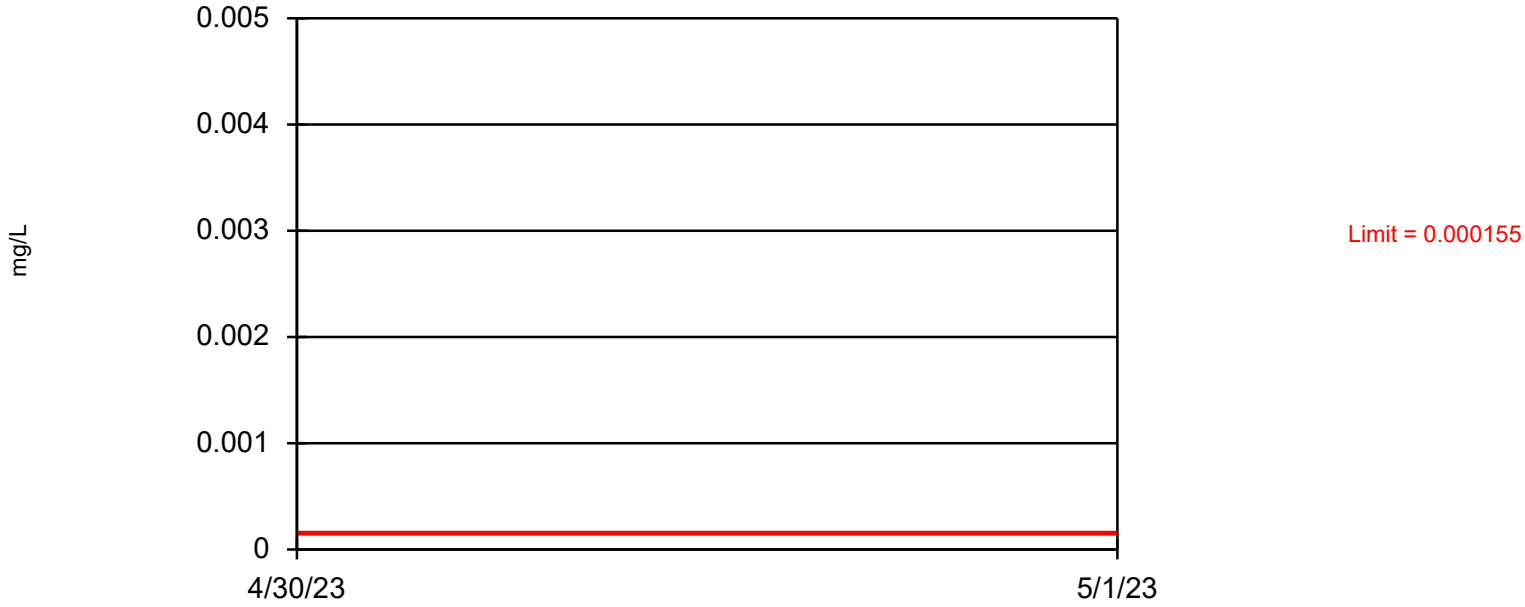
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 94.12% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Beryllium Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



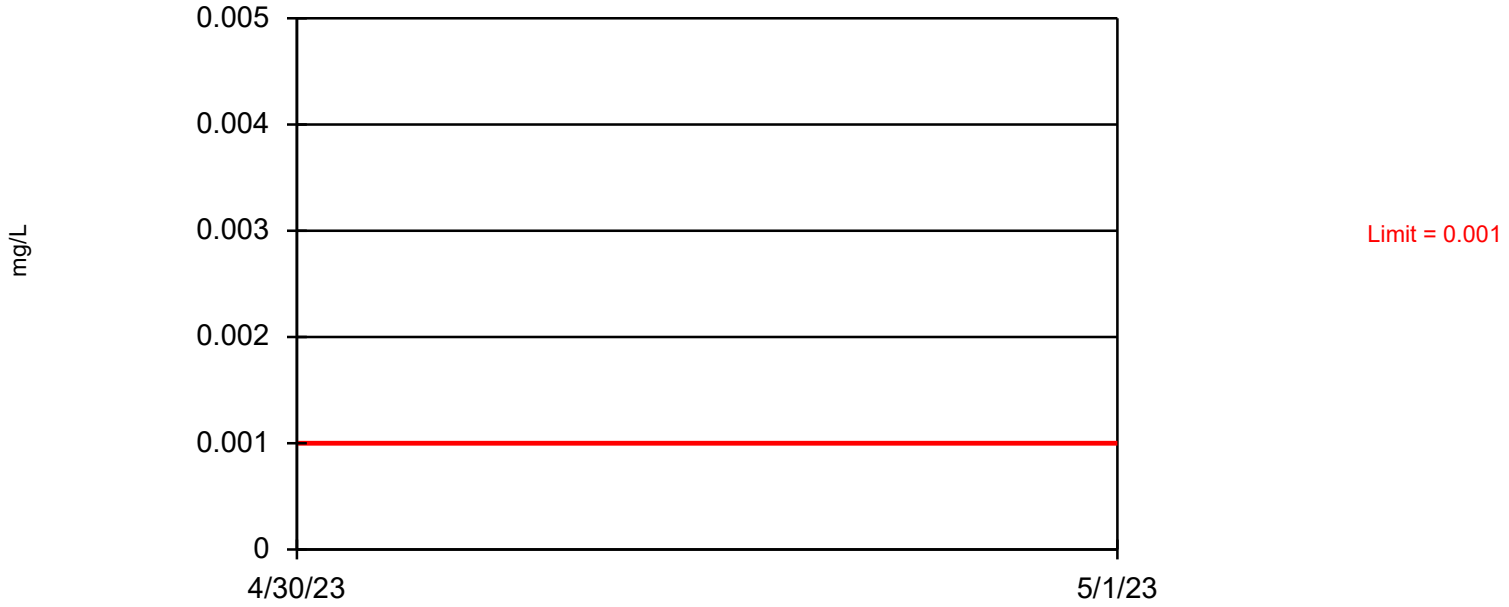
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 90.2% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Cadmium Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



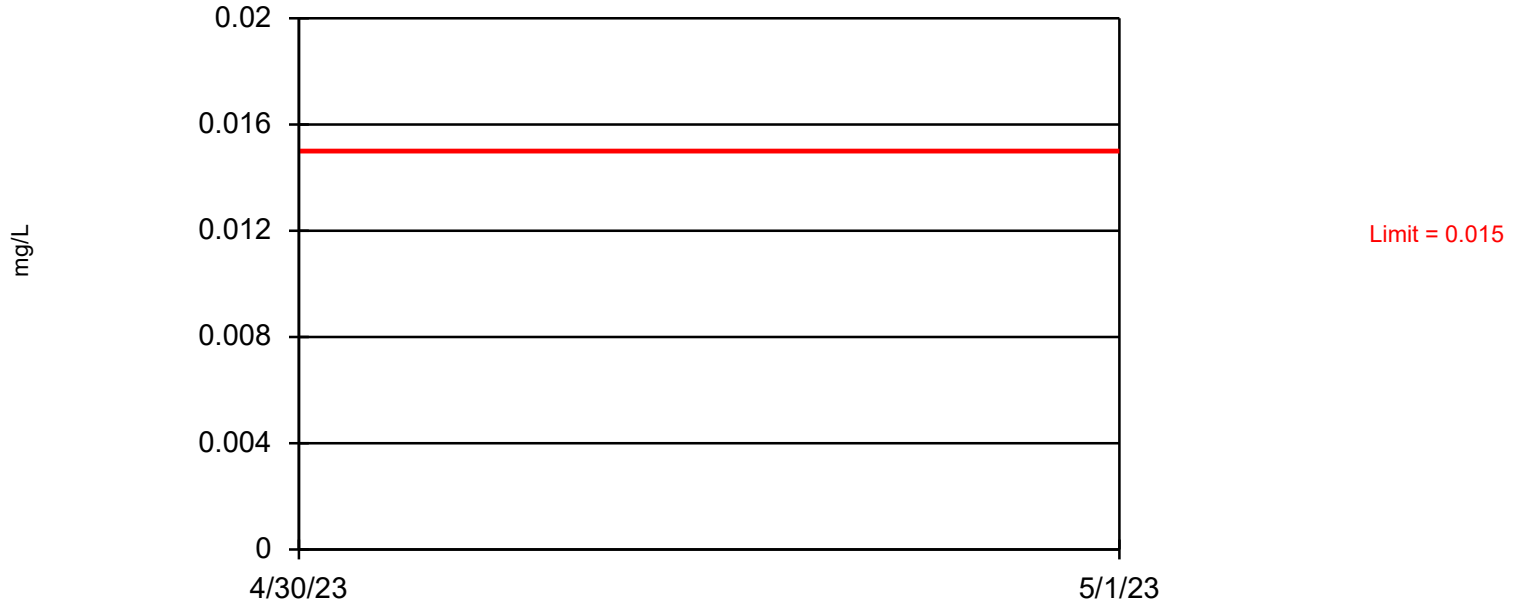
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 82.35% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Chromium Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the data required both a power transformation and Cohen's adjustment. Limit is highest of 51 background values. 35.29% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Cobalt Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric

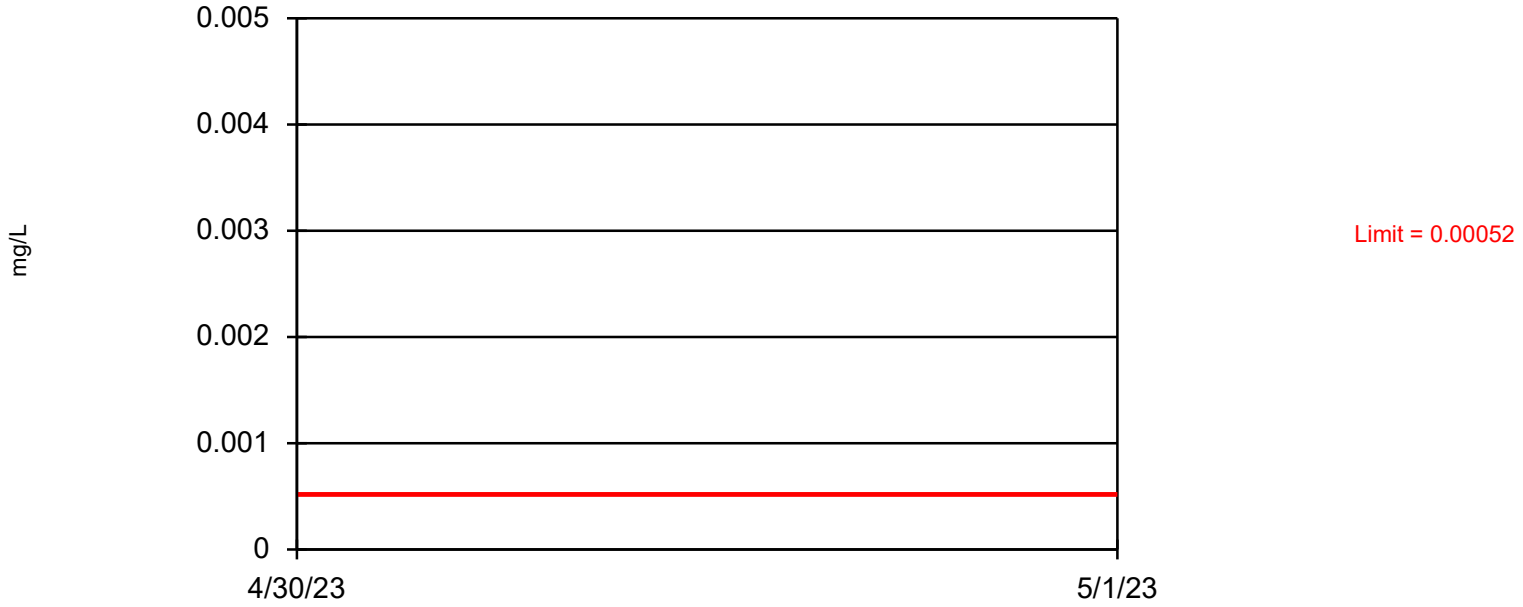
Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 54 background values. 1.852% NDs. 91.99% coverage at alpha=0.01; 94.73% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06267.

Constituent: Fluoride Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 86.27% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

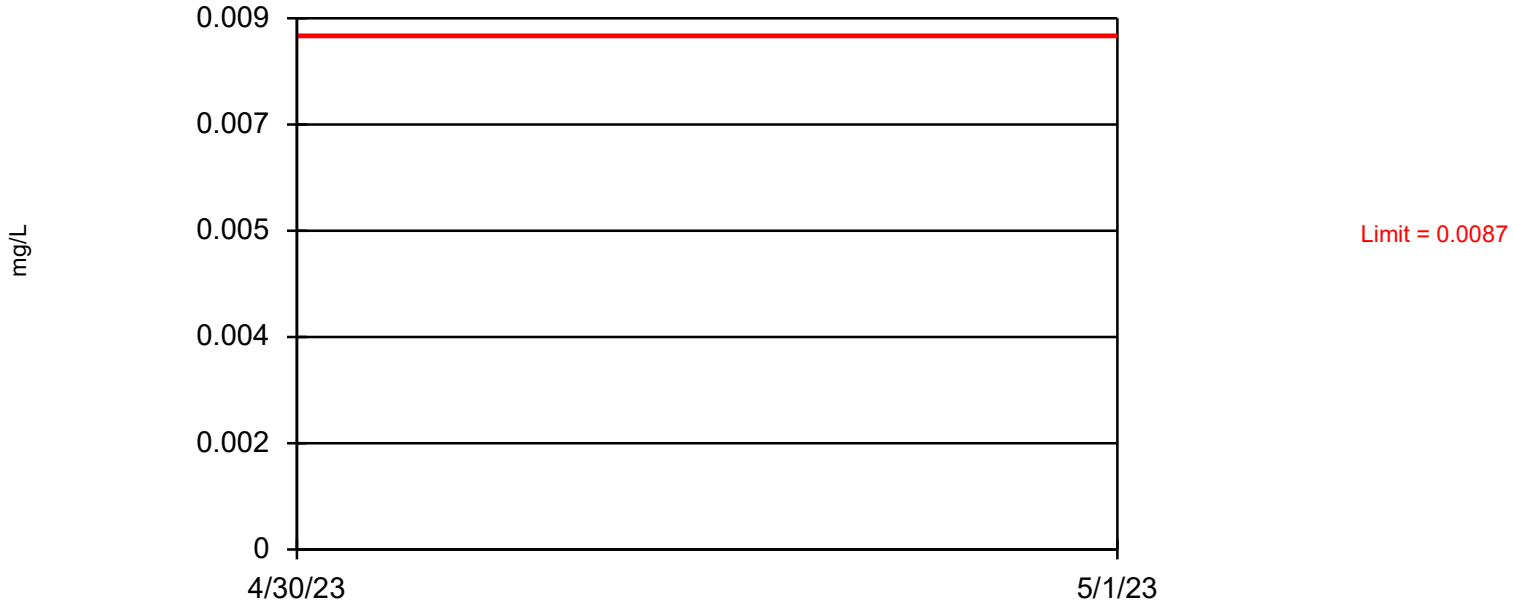
Constituent: Lead Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Tolerance Limit

Interwell Non-parametric



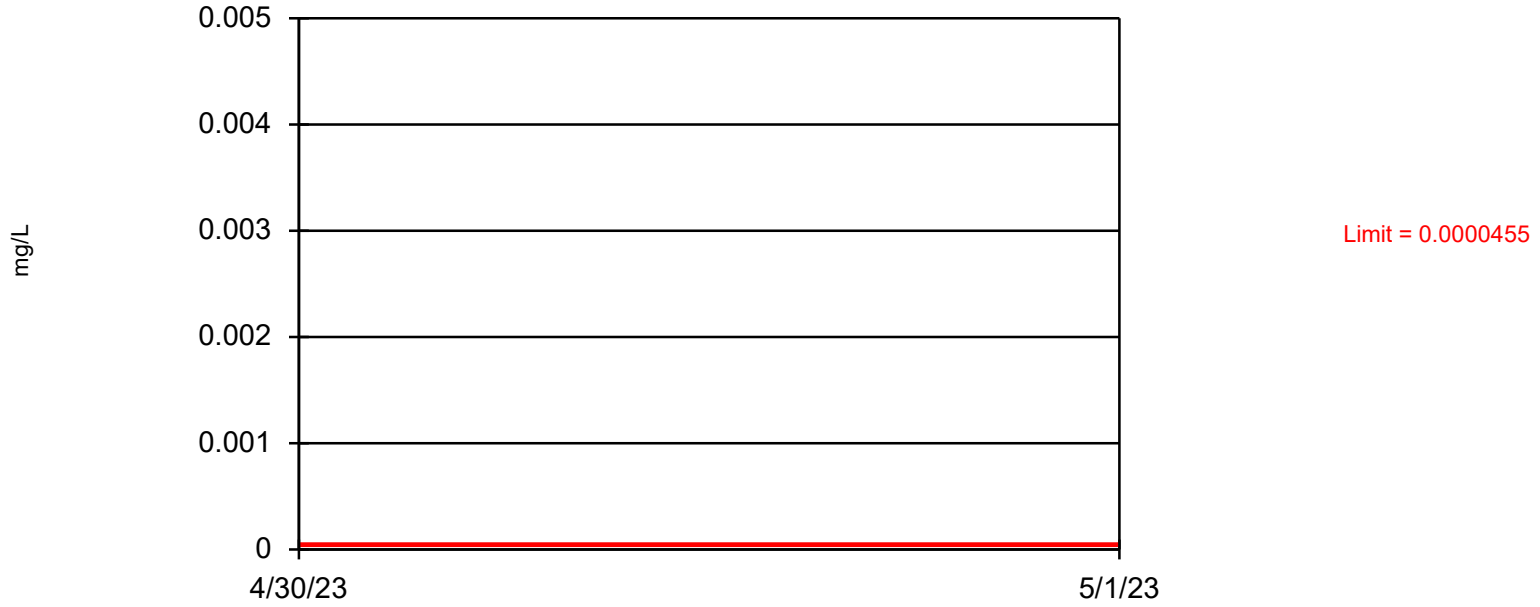
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 70.59% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Lithium Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



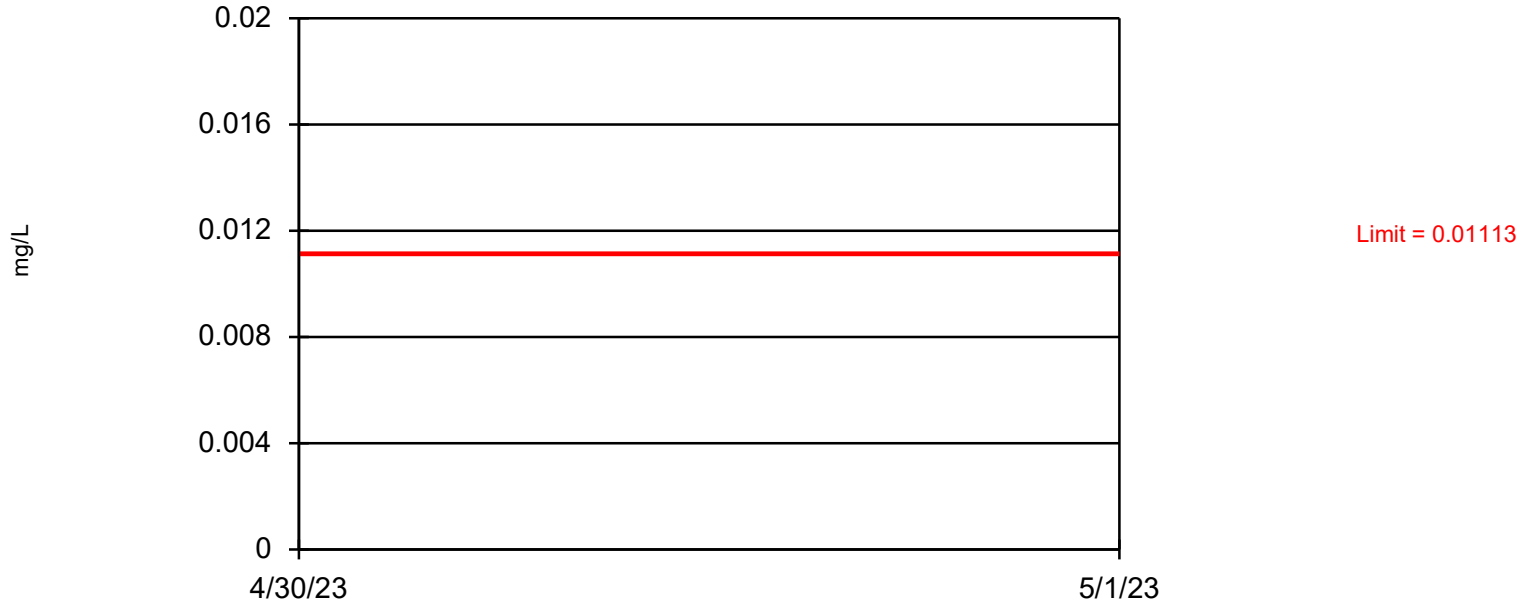
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Mercury Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Parametric



95% coverage. Background Data Summary: Mean=0.006129, Std. Dev.=0.002429, n=51, 9.804% NDs. Normality test: Shapiro Francia @alpha = 0.05, calculated = 0.9806, critical = 0.954. Report alpha = 0.05.

Constituent: Molybdenum Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Sanitas™ v.9.6.37 Software licensed to WSP USA Inc. EPA

Tolerance Limit

Interwell Parametric

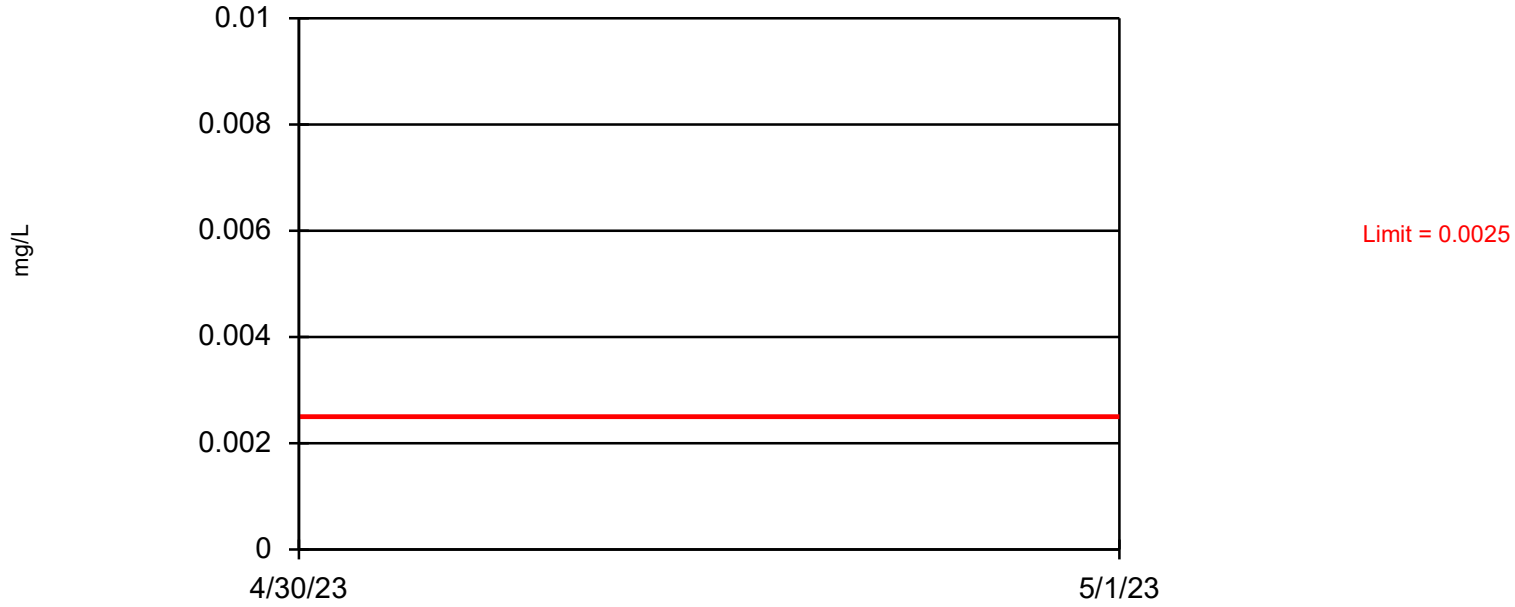
95% coverage. Background Data Summary (after Cohen`s Adjustment): Mean=1.594, Std. Dev.=0.9401, n=41, 41.46% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9582, critical = 0.941. Report alpha = 0.05.

Constituent: Radium 226 + 228 Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



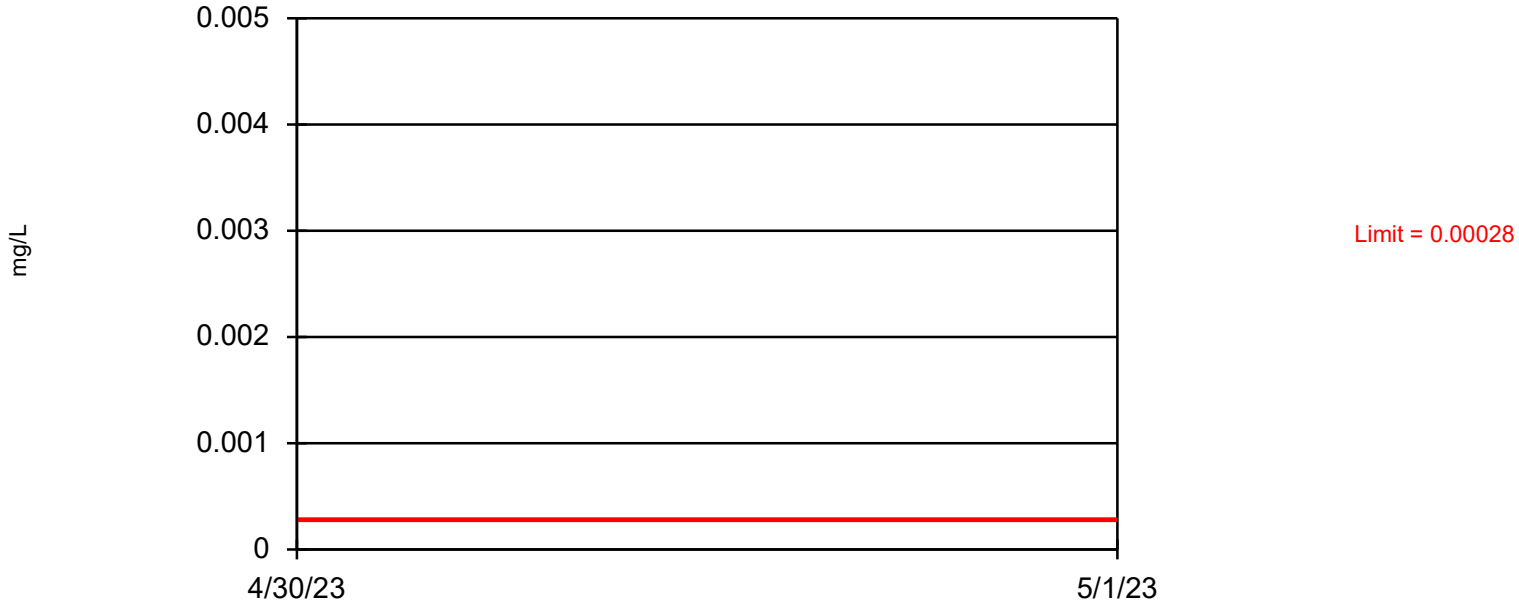
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 92.16% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Selenium Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Tolerance Limit

Interwell Non-parametric



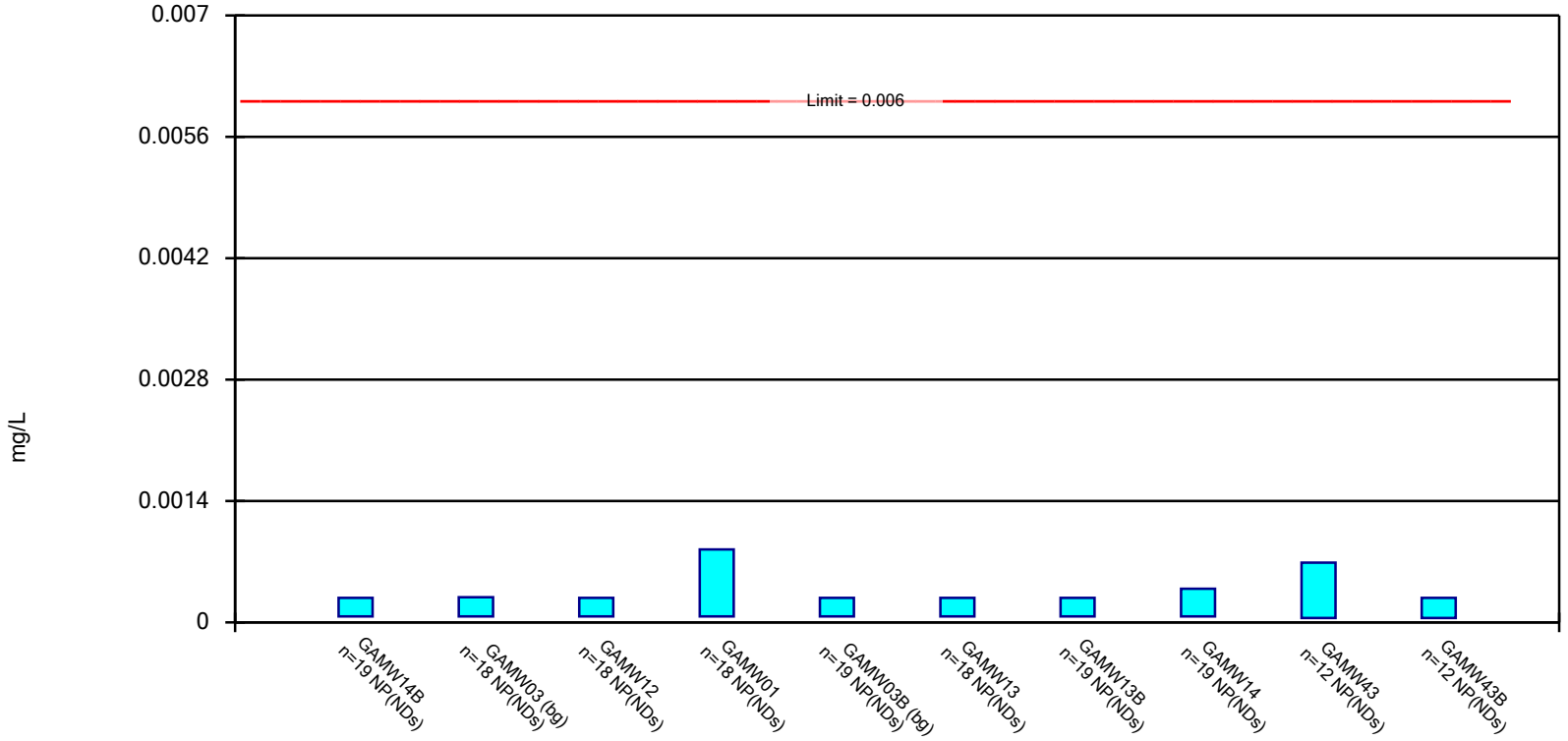
Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 98.04% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Thallium Analysis Run 8/2/2023 10:51 AM View: CCR Assessment Background Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080123

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

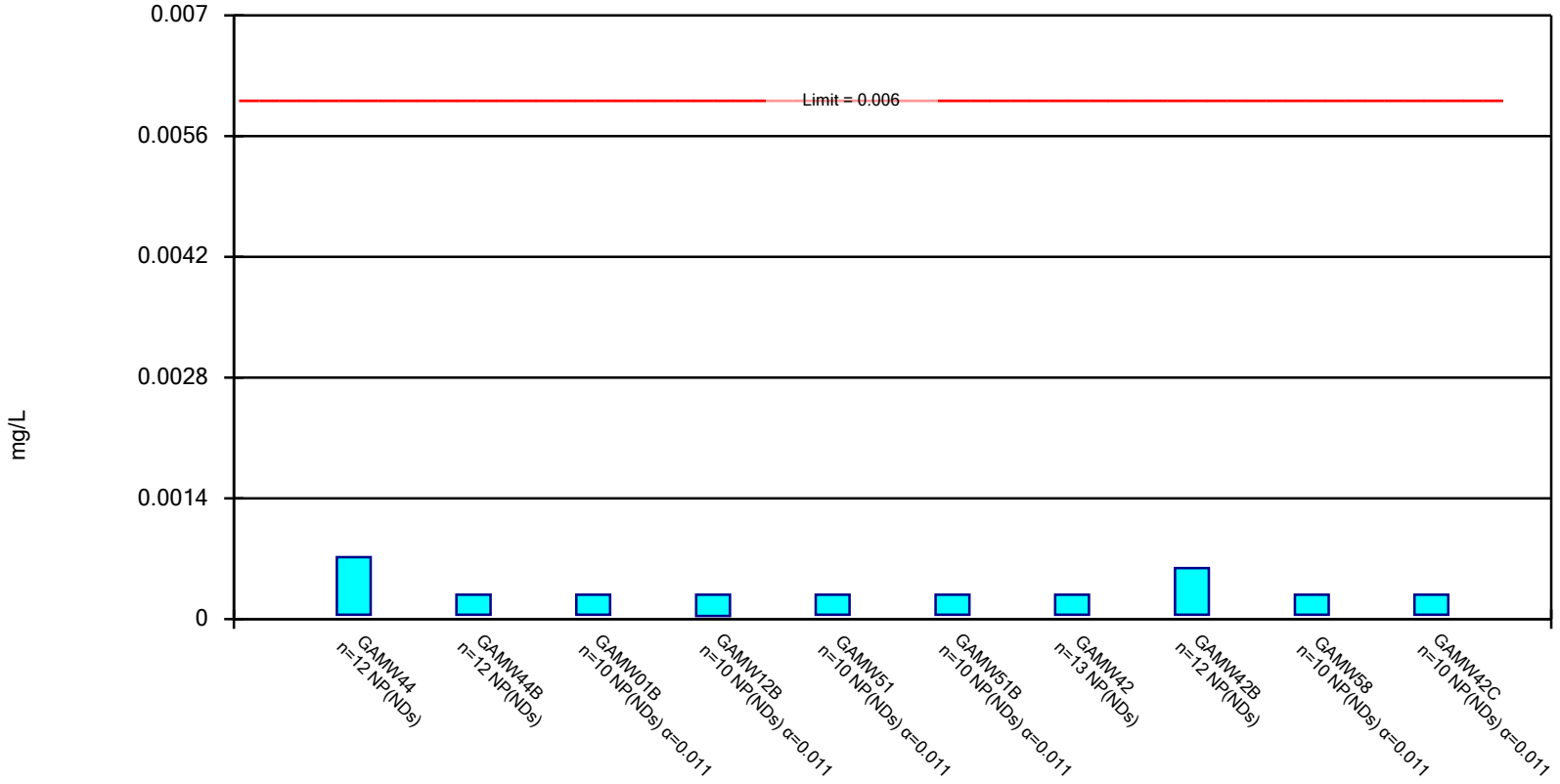


Constituent: Antimony Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

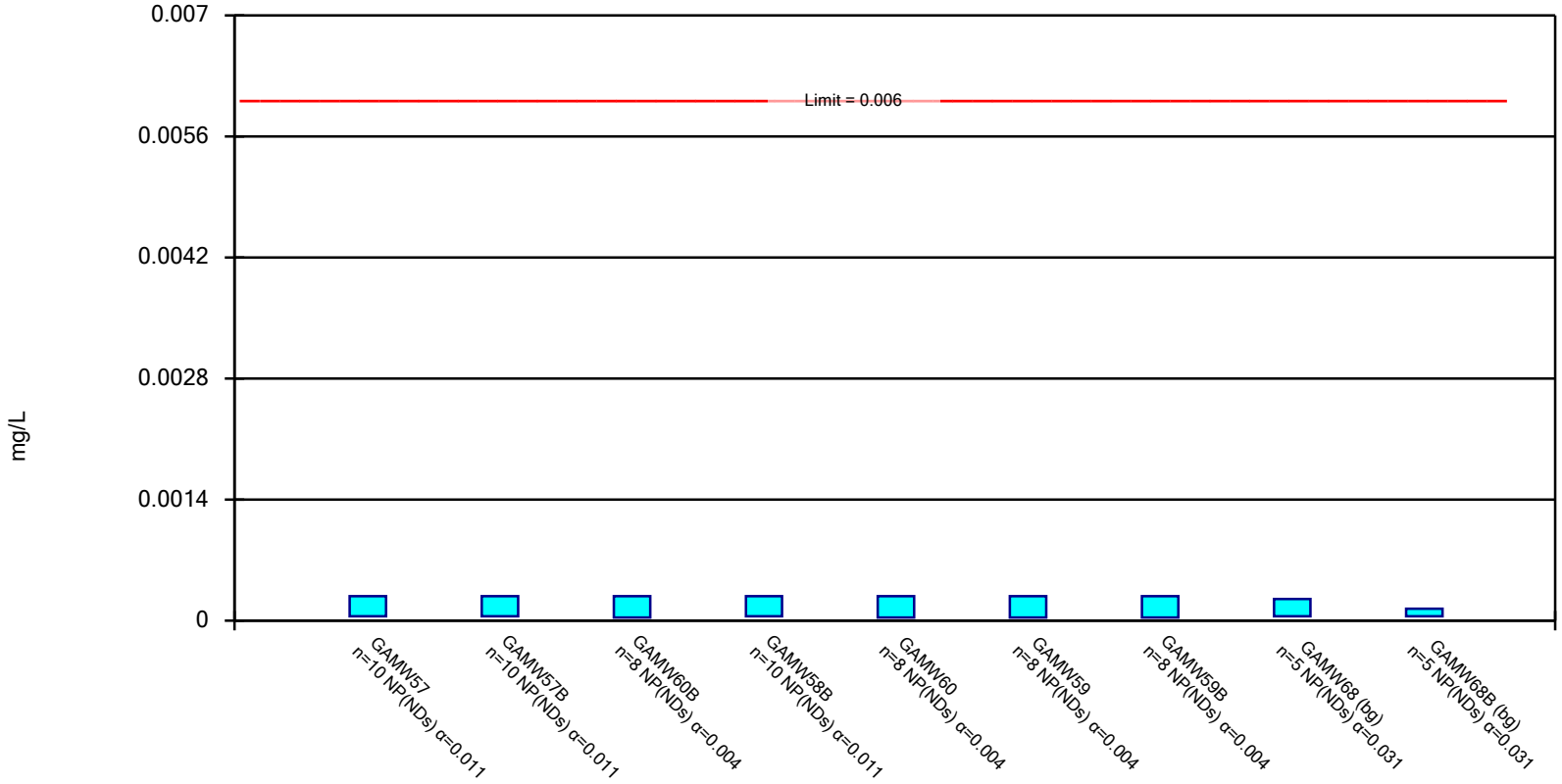


Constituent: Antimony Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

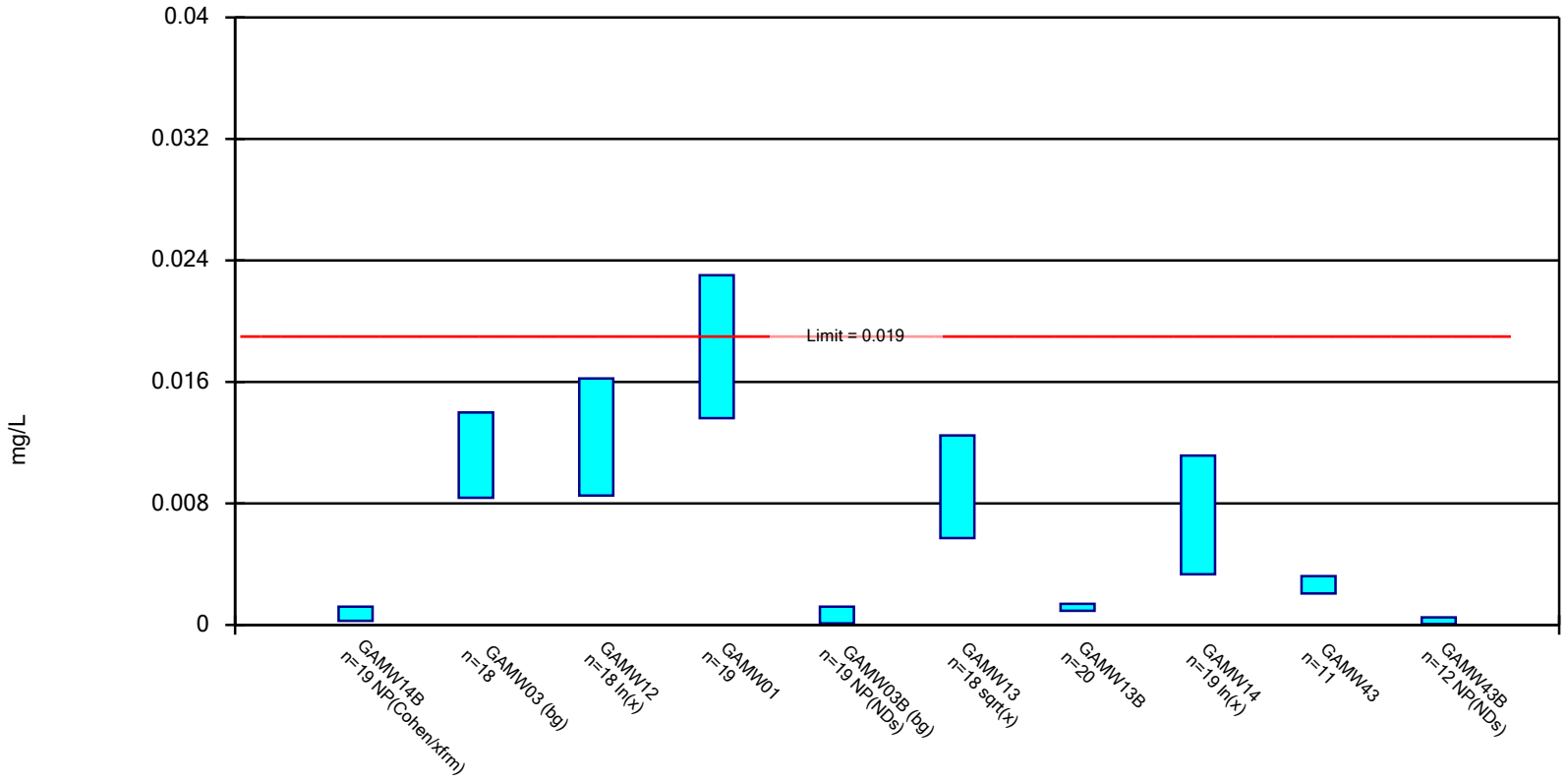


Constituent: Antimony Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

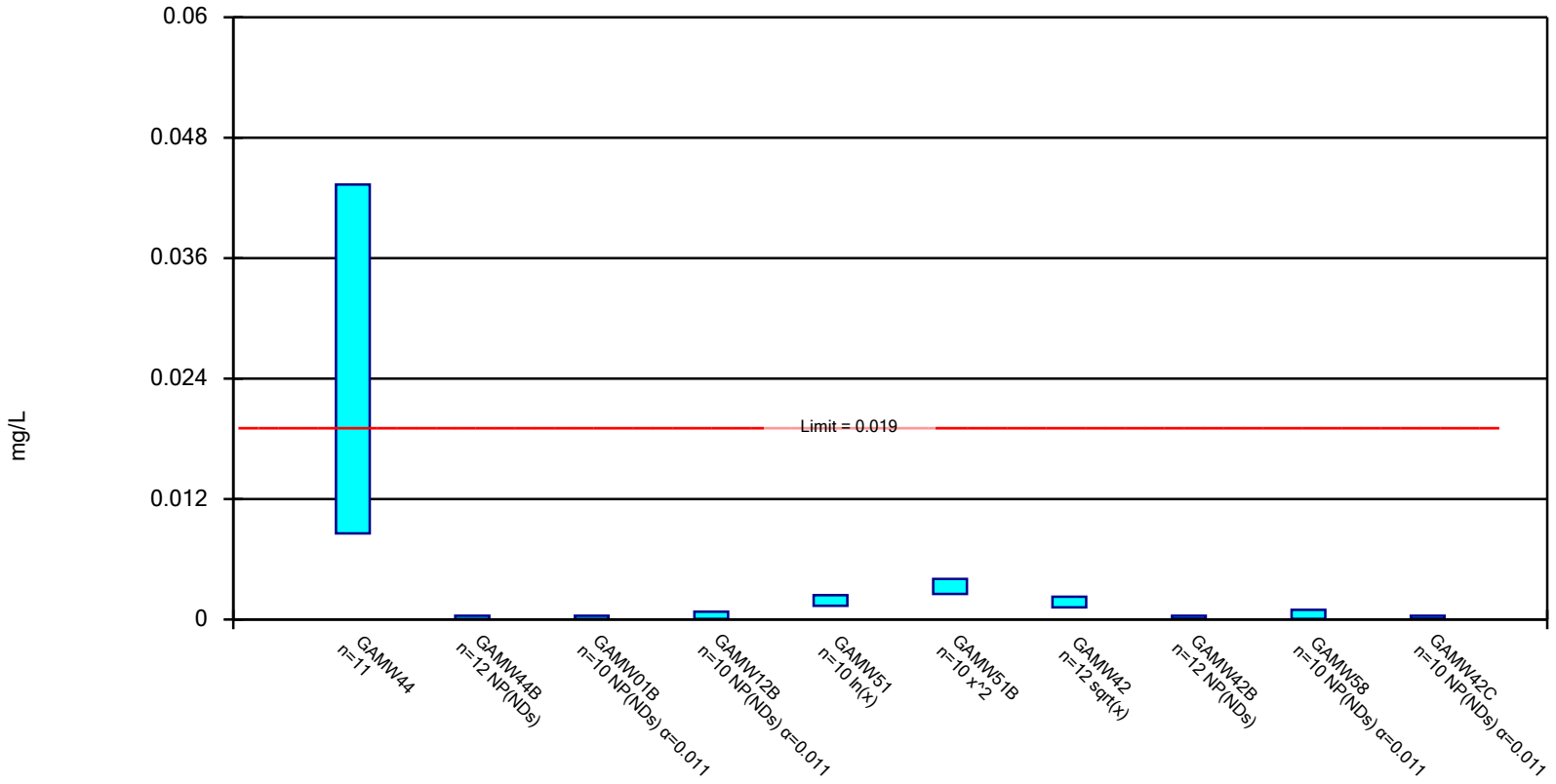


Constituent: Arsenic Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

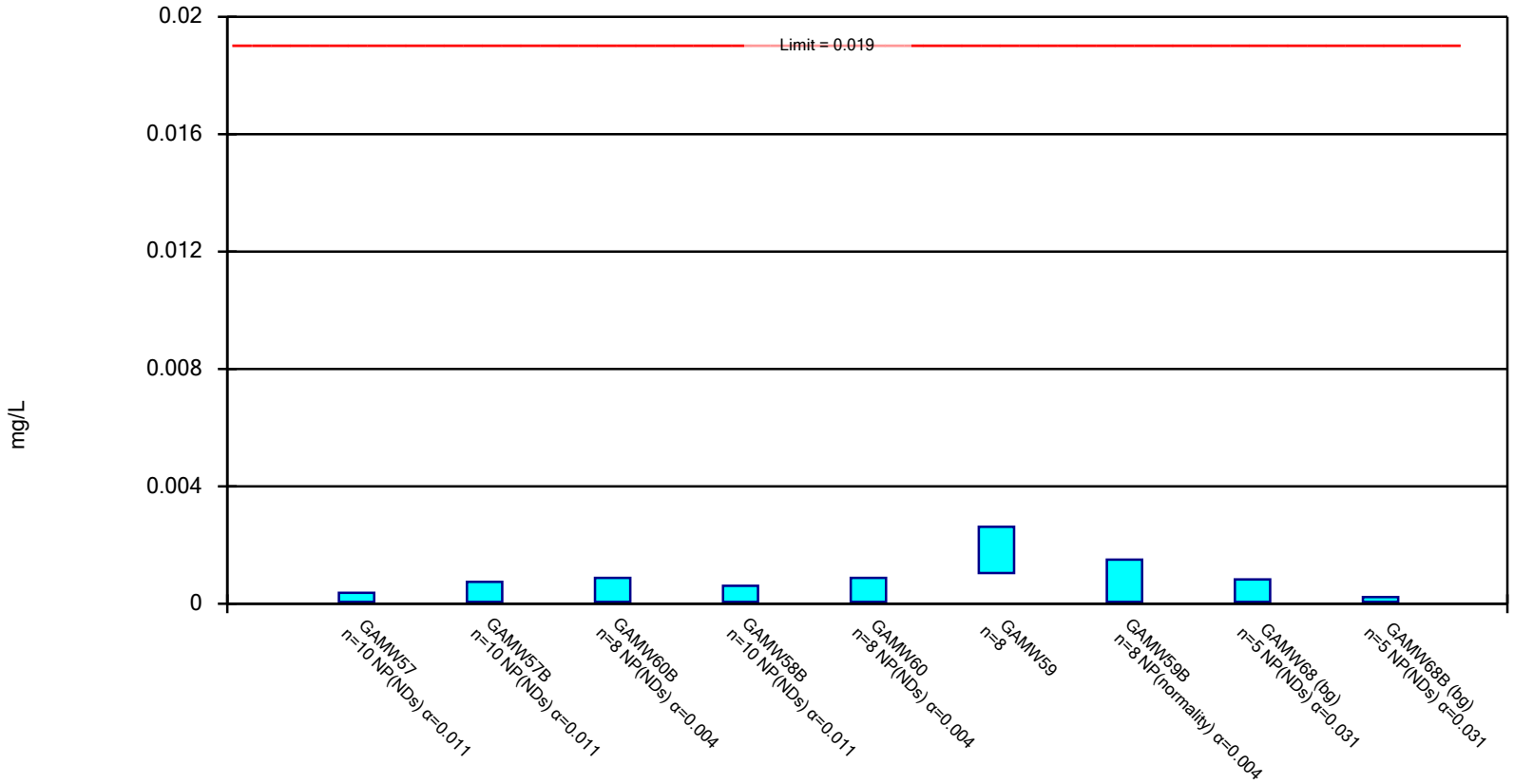


Constituent: Arsenic Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

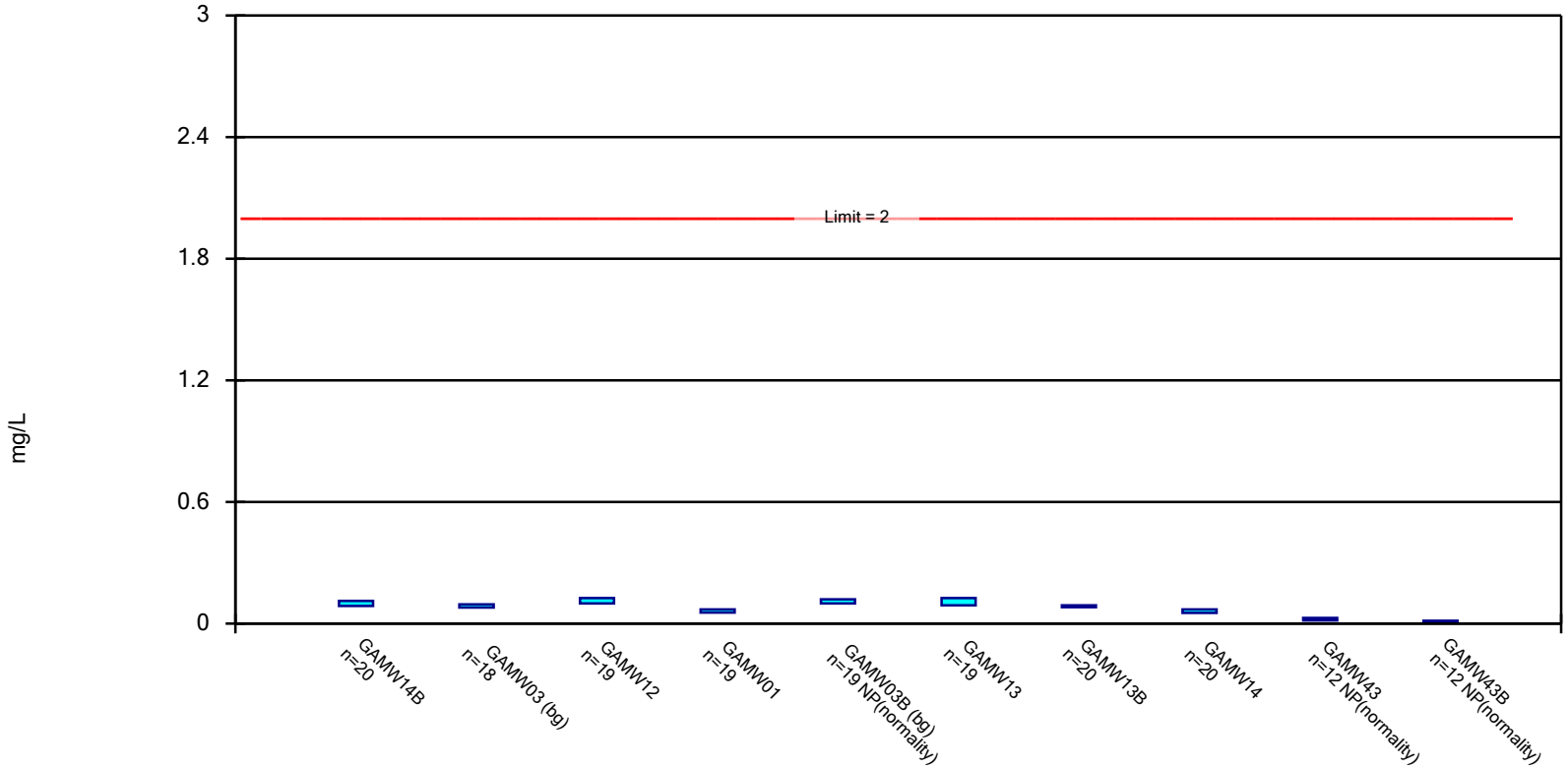


Constituent: Arsenic Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

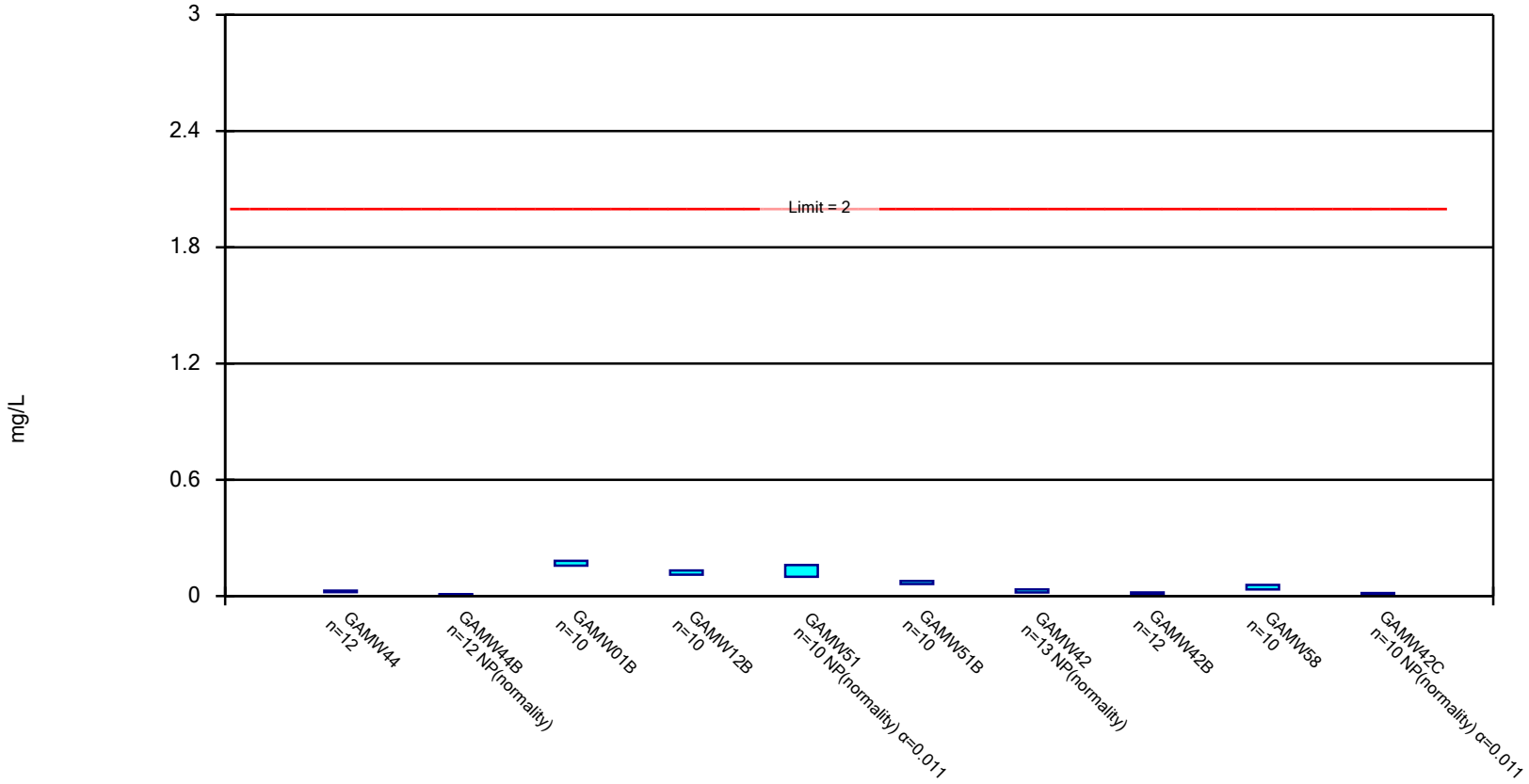


Constituent: Barium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

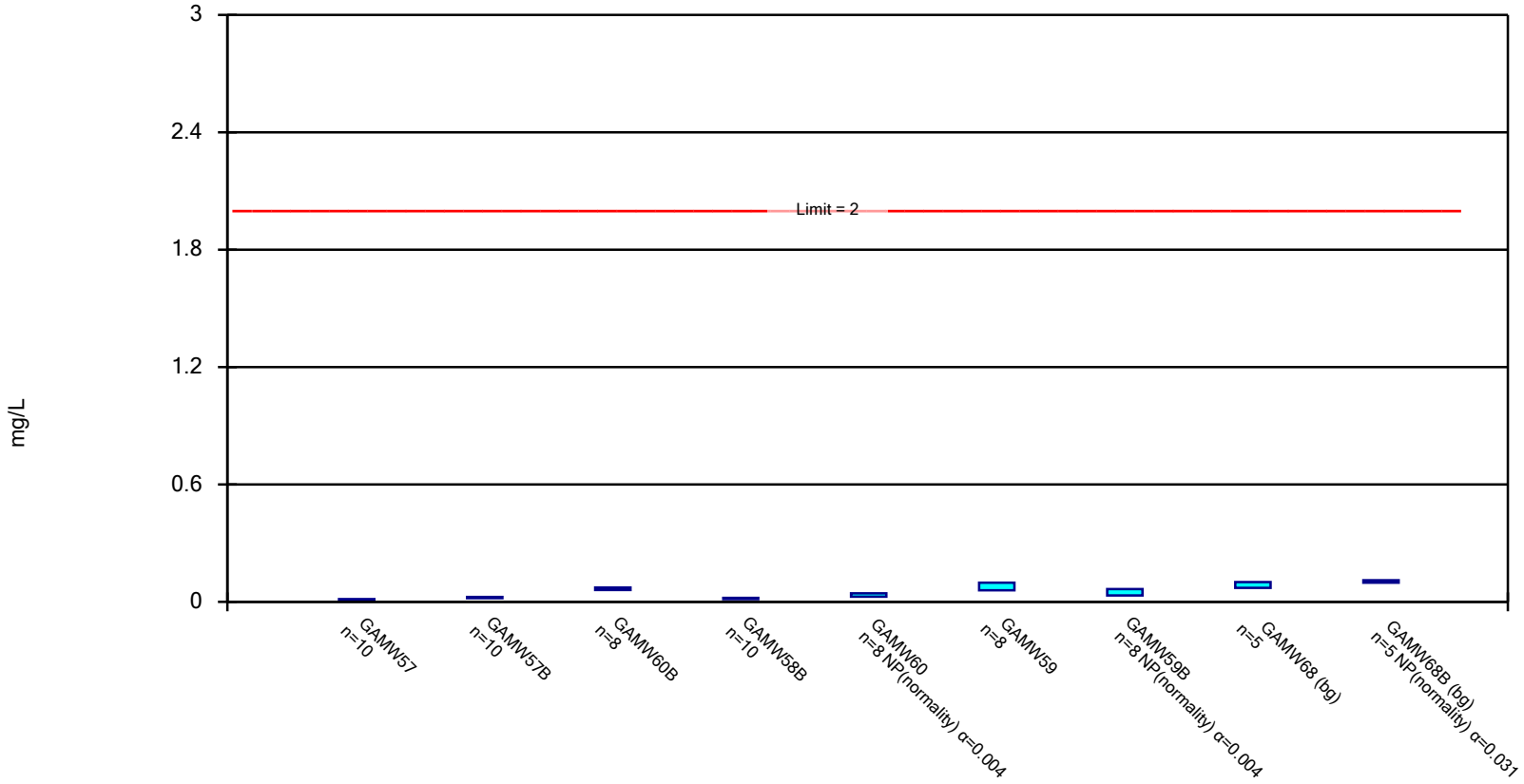


Constituent: Barium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

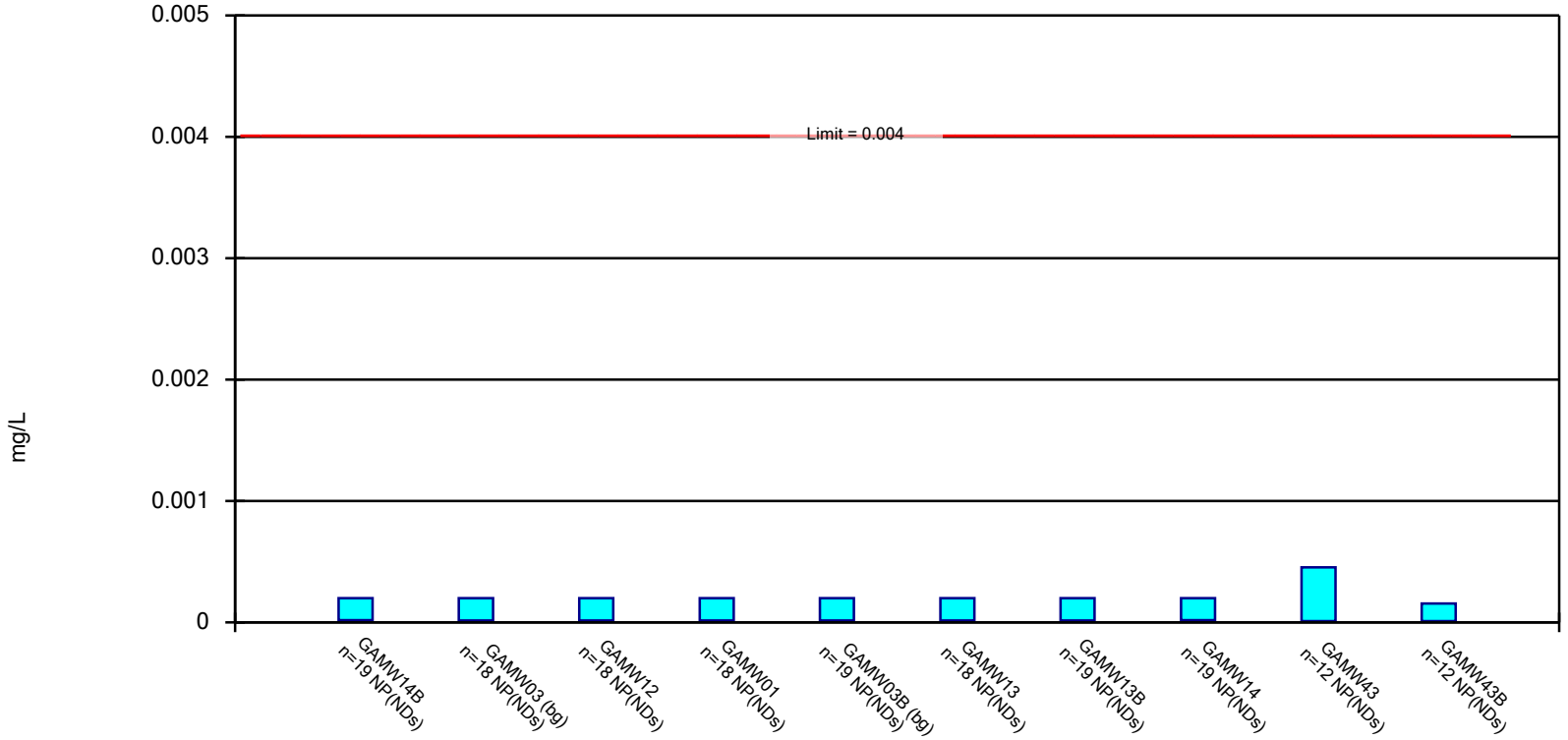


Constituent: Barium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

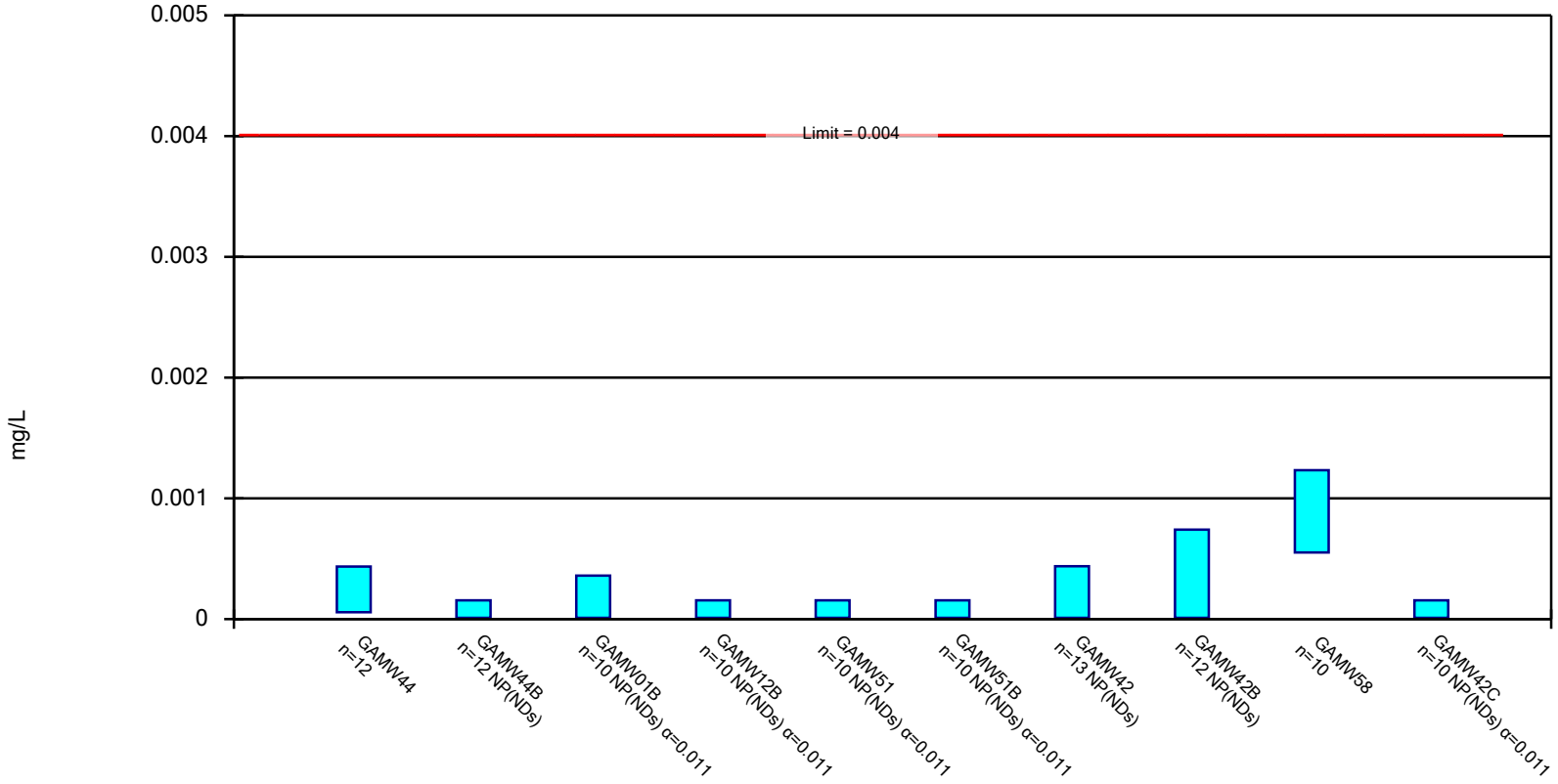


Constituent: Beryllium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

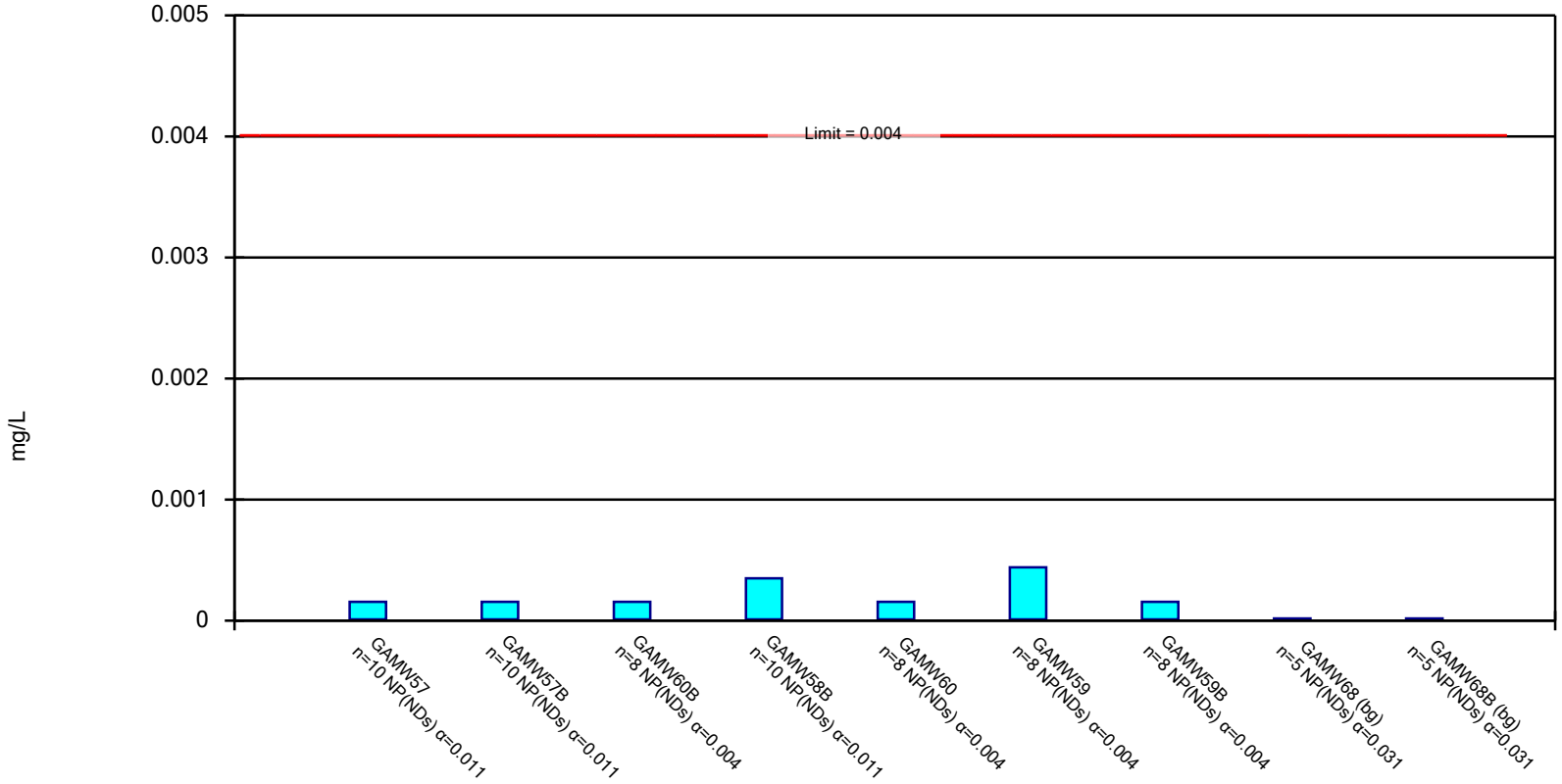


Constituent: Beryllium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

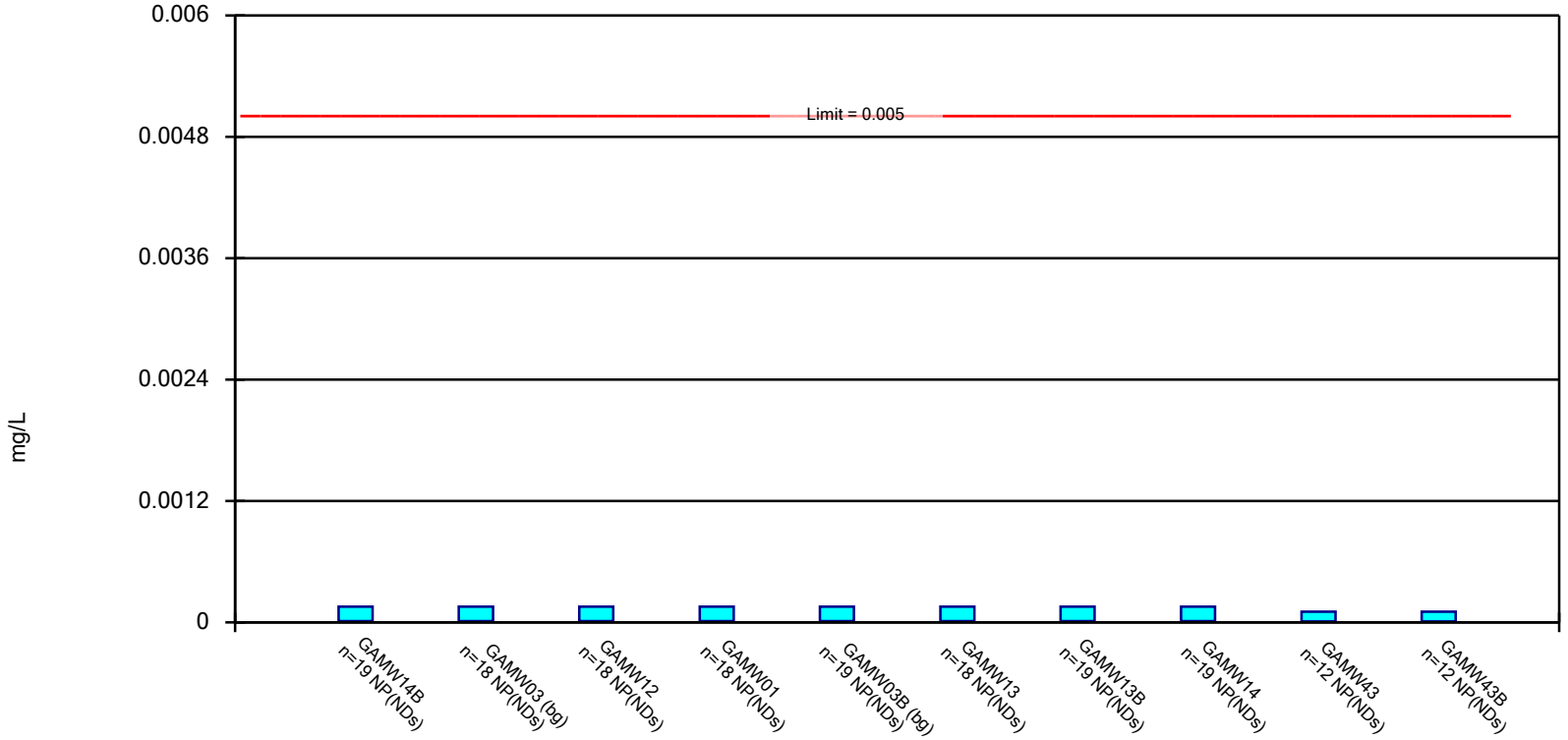


Constituent: Beryllium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

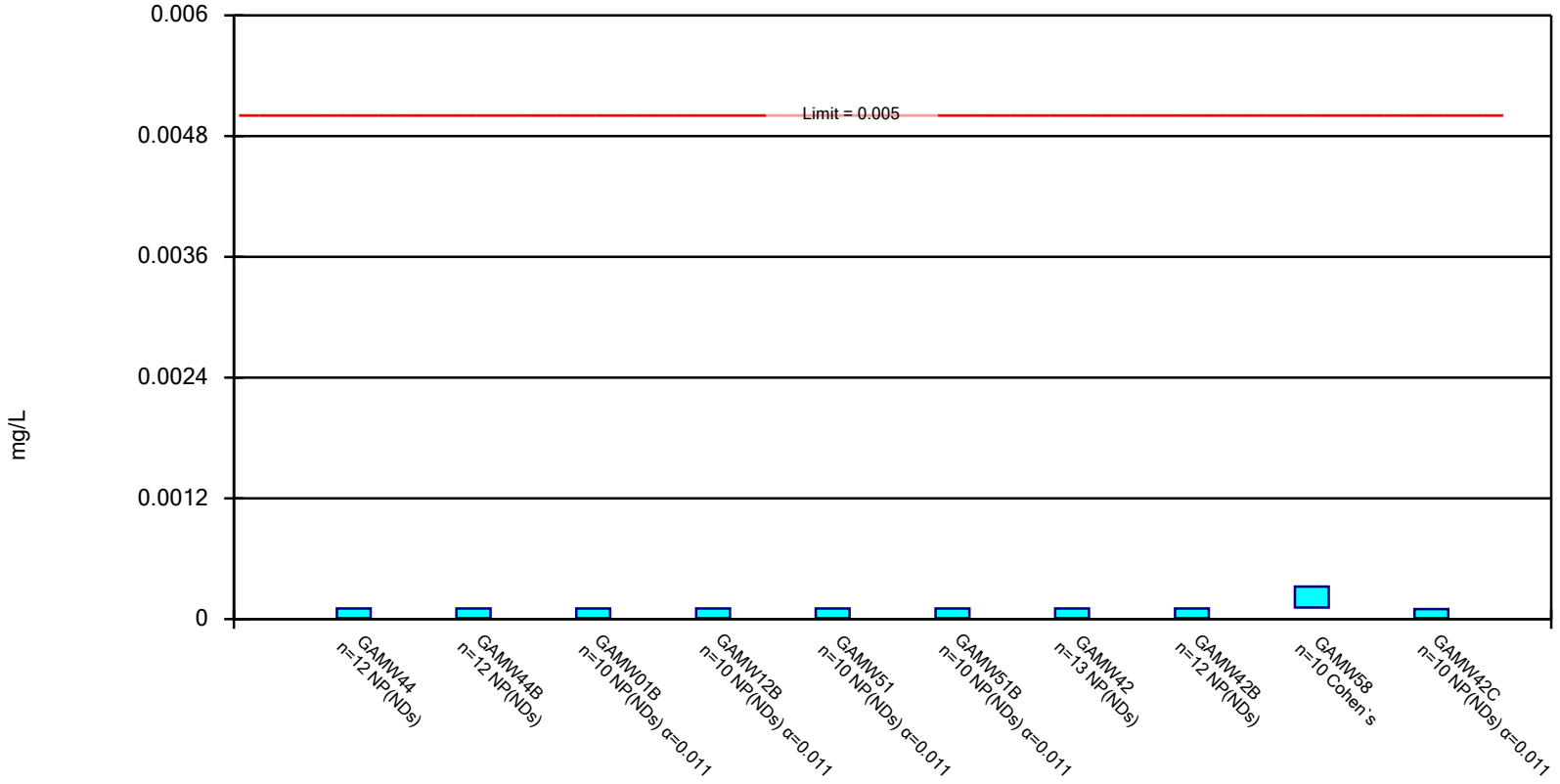


Constituent: Cadmium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

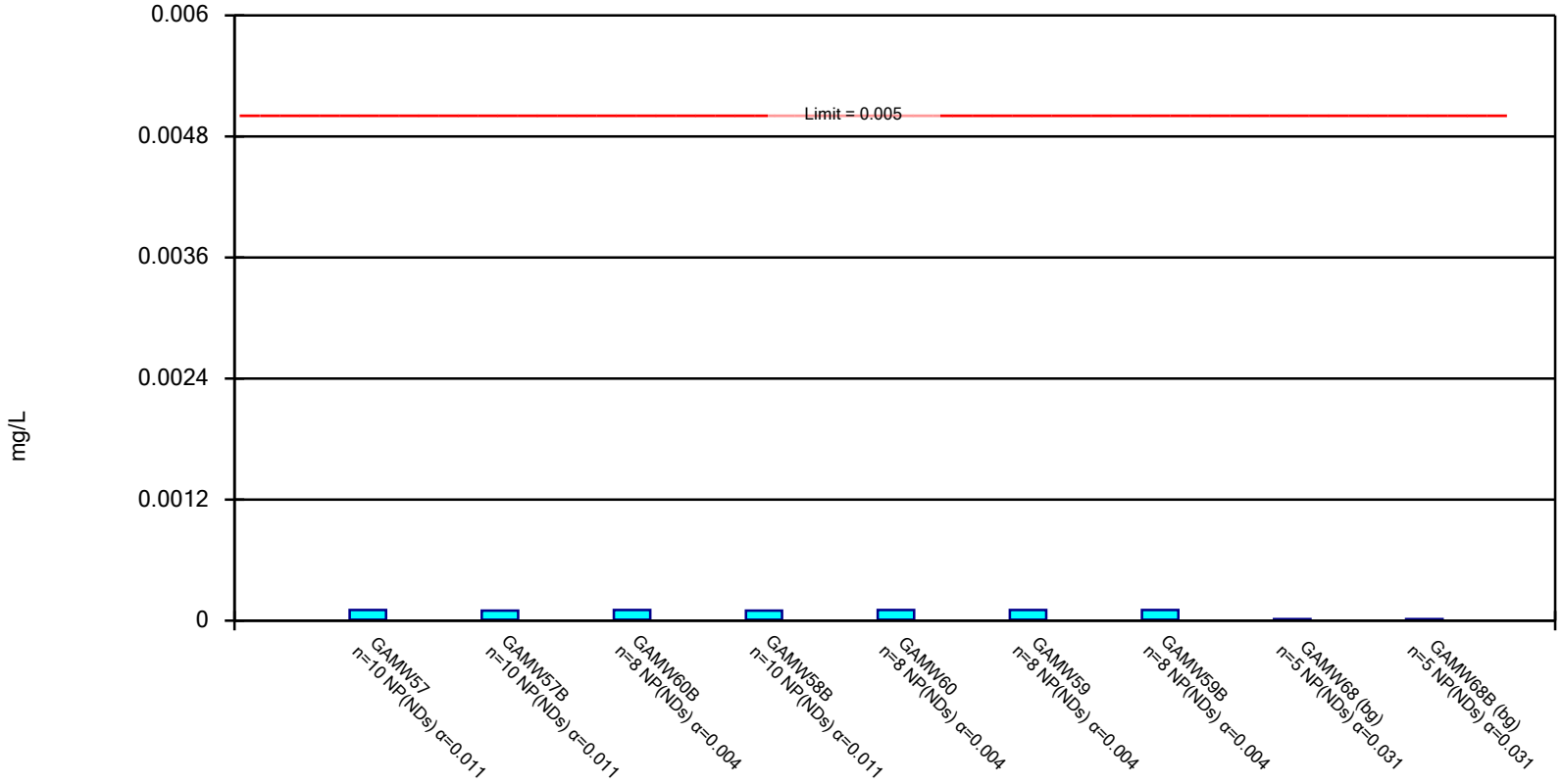


Constituent: Cadmium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

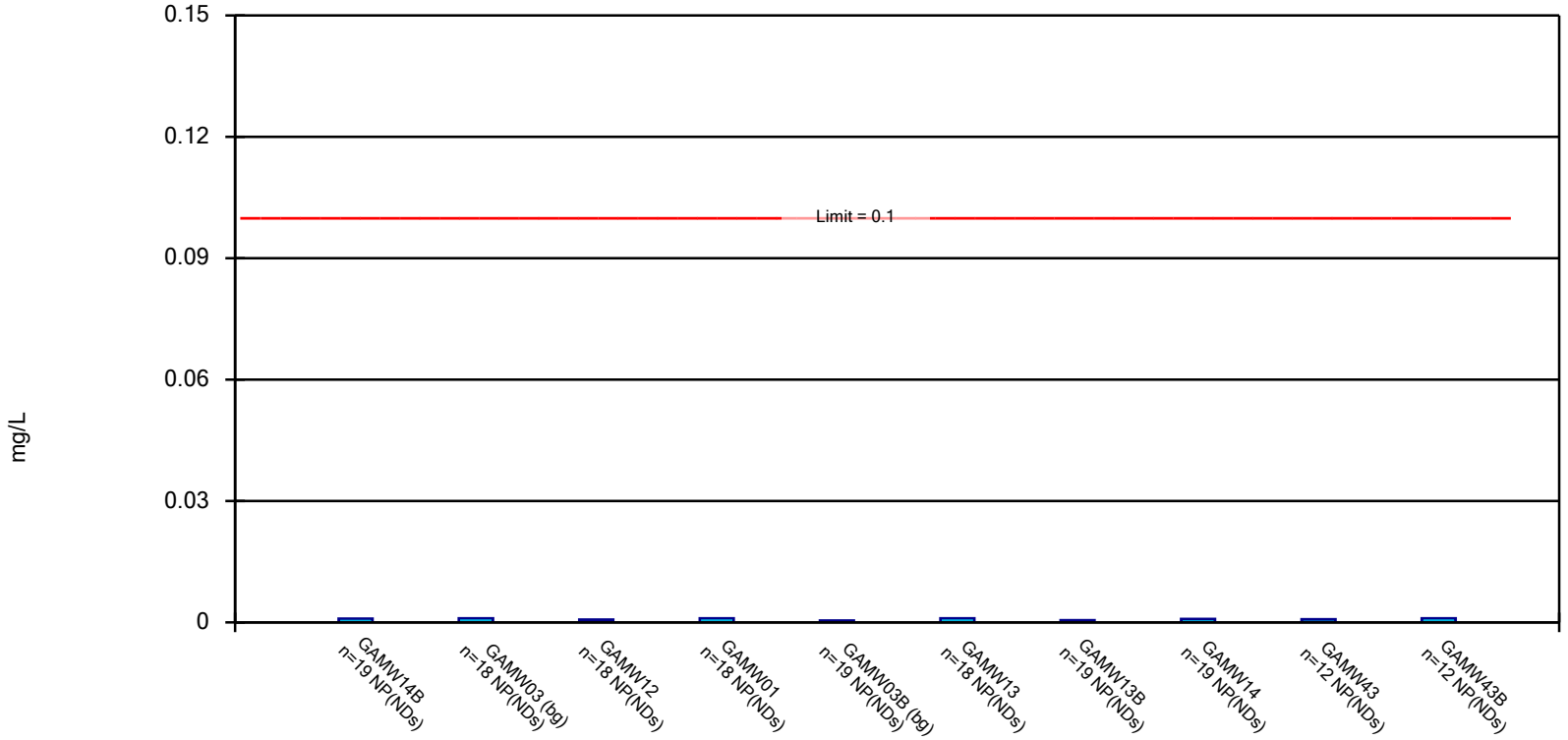


Constituent: Cadmium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

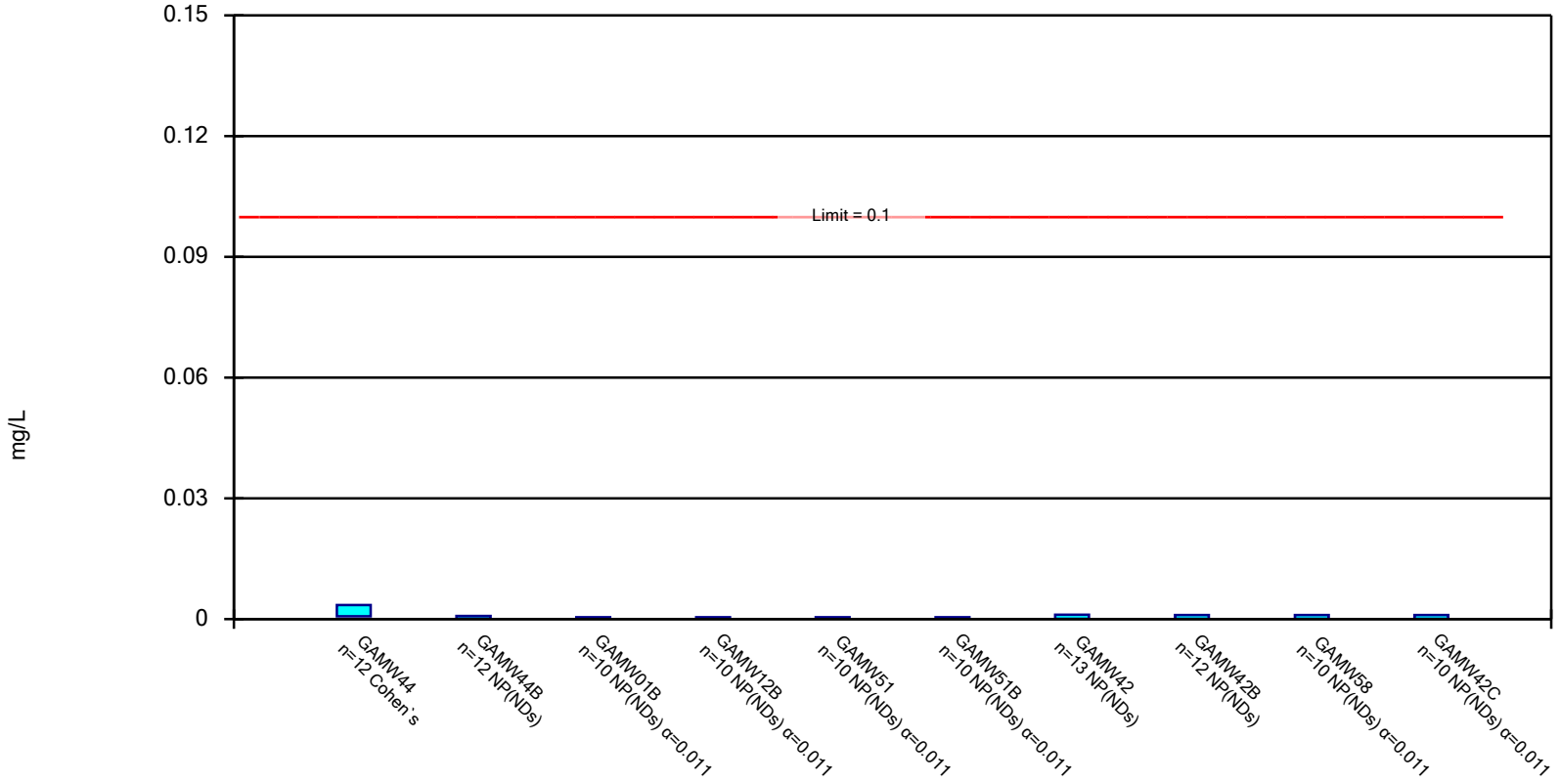


Constituent: Chromium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

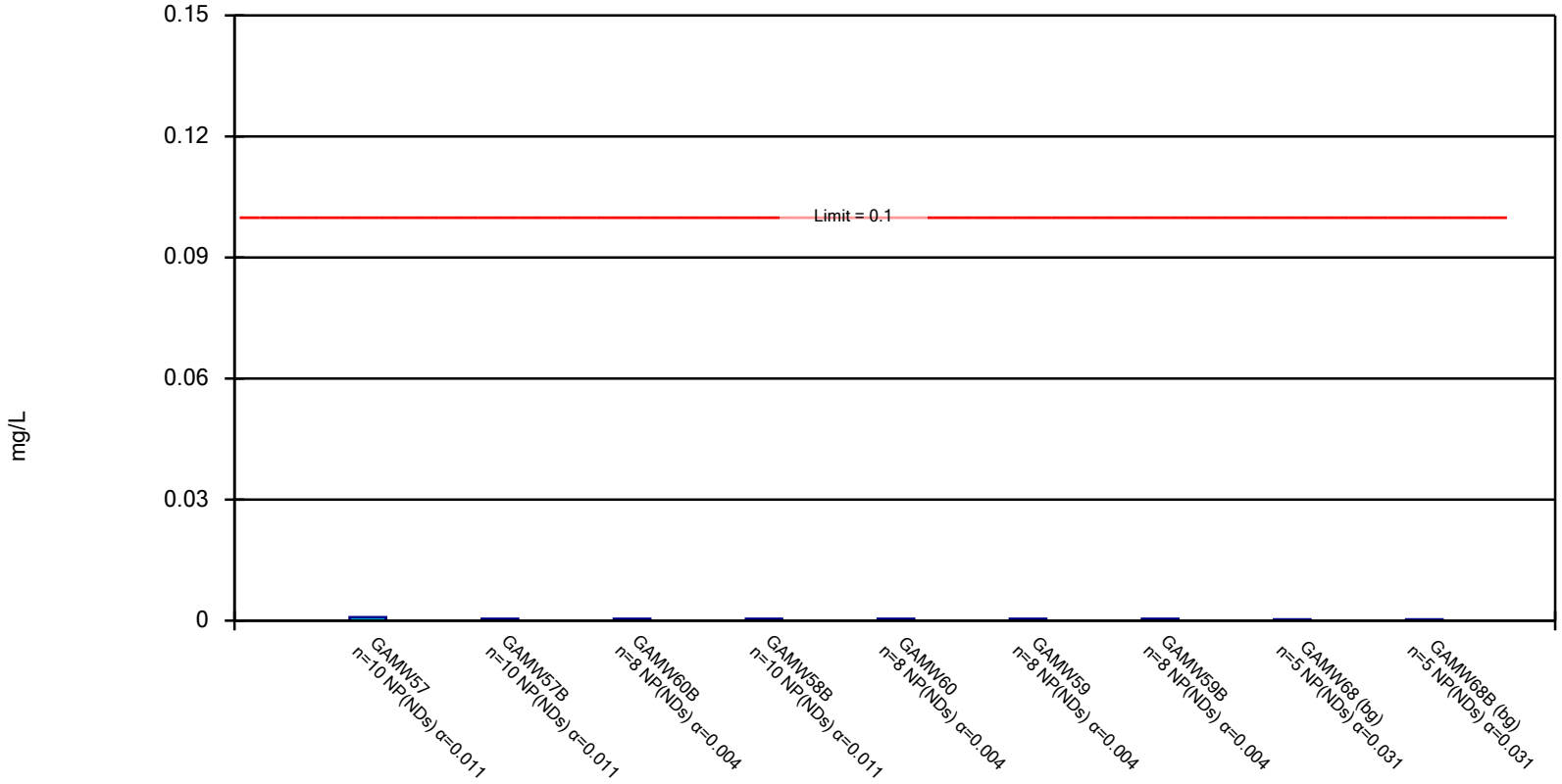


Constituent: Chromium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

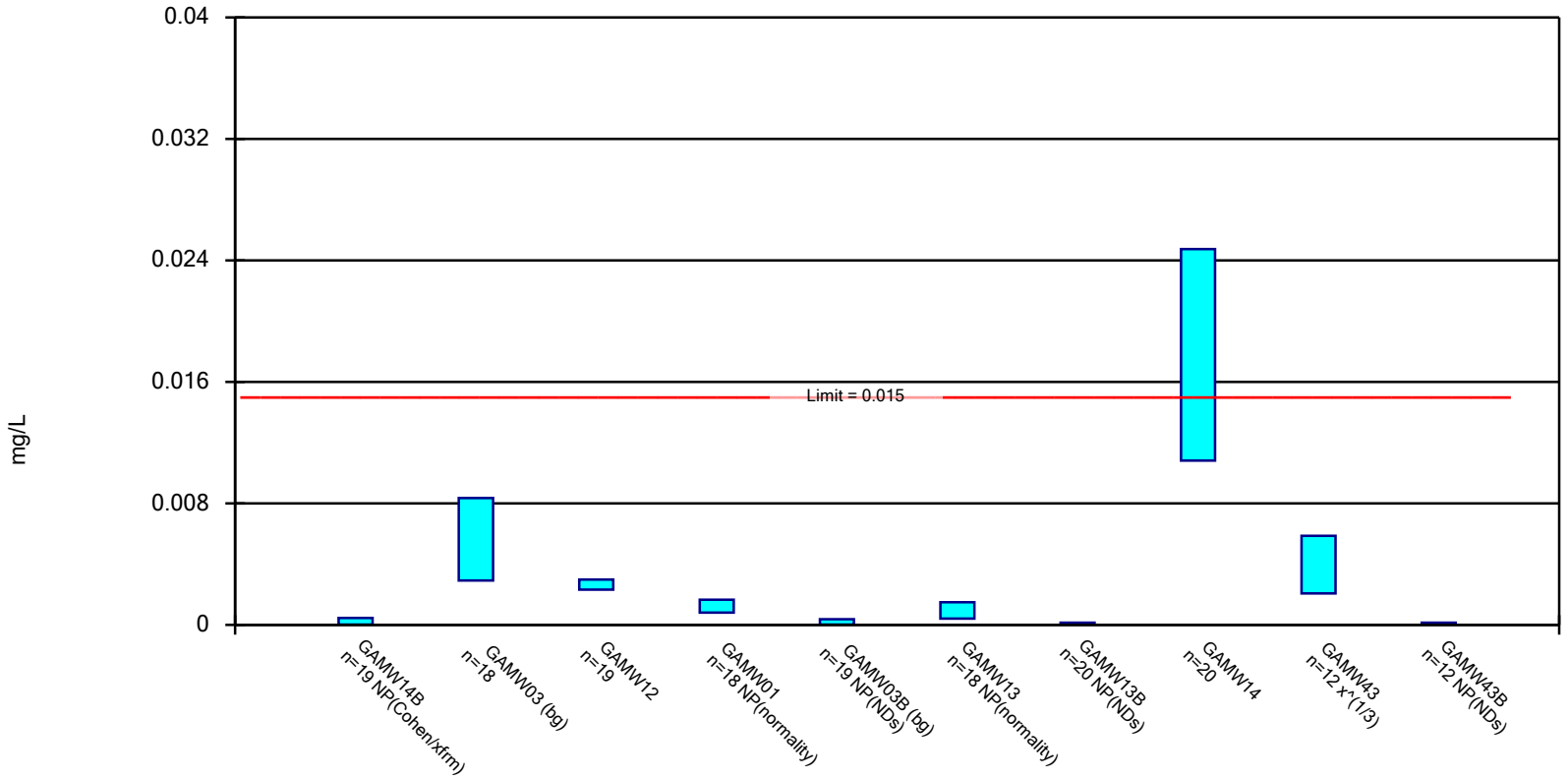


Constituent: Chromium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

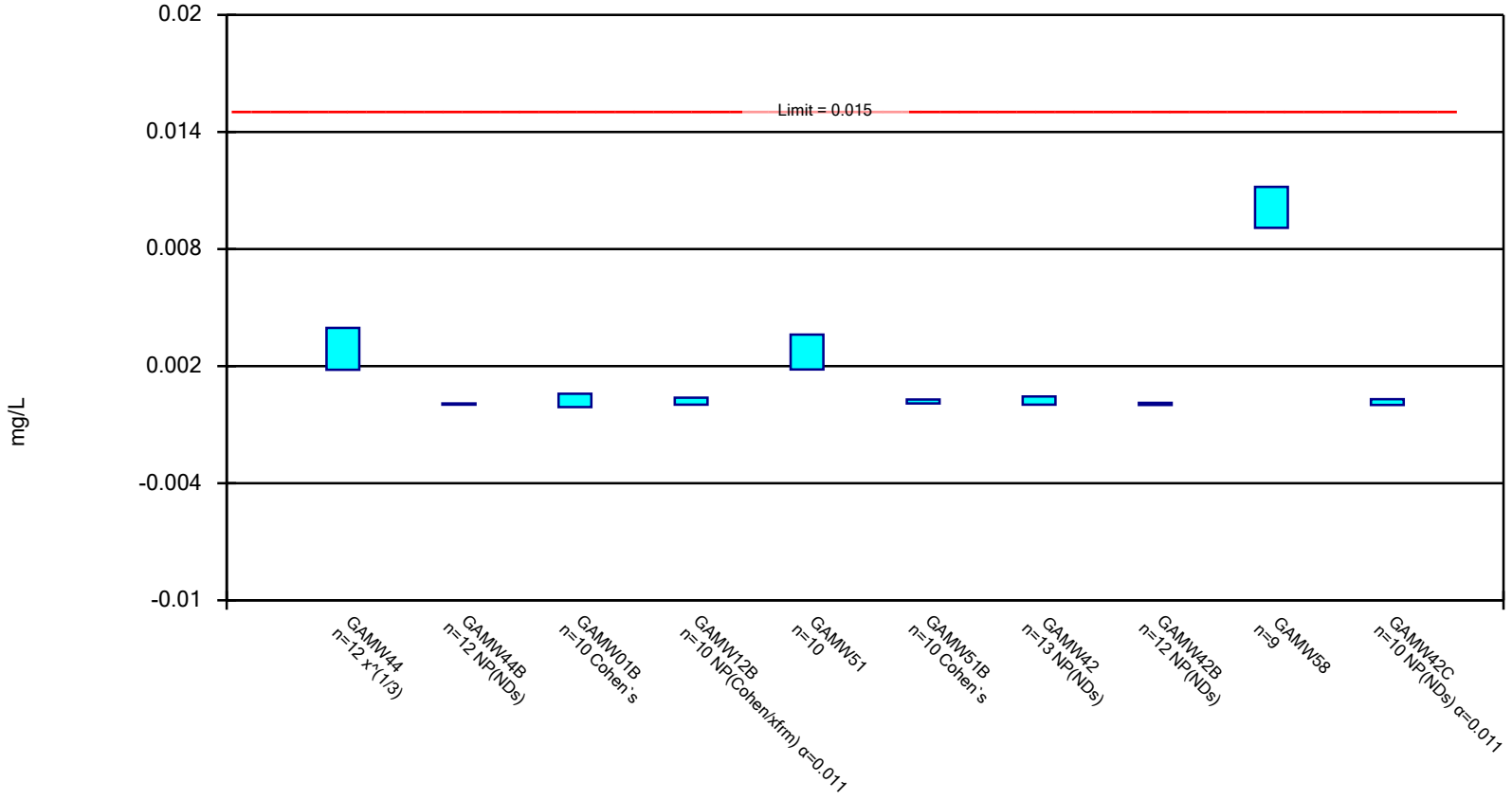


Constituent: Cobalt Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

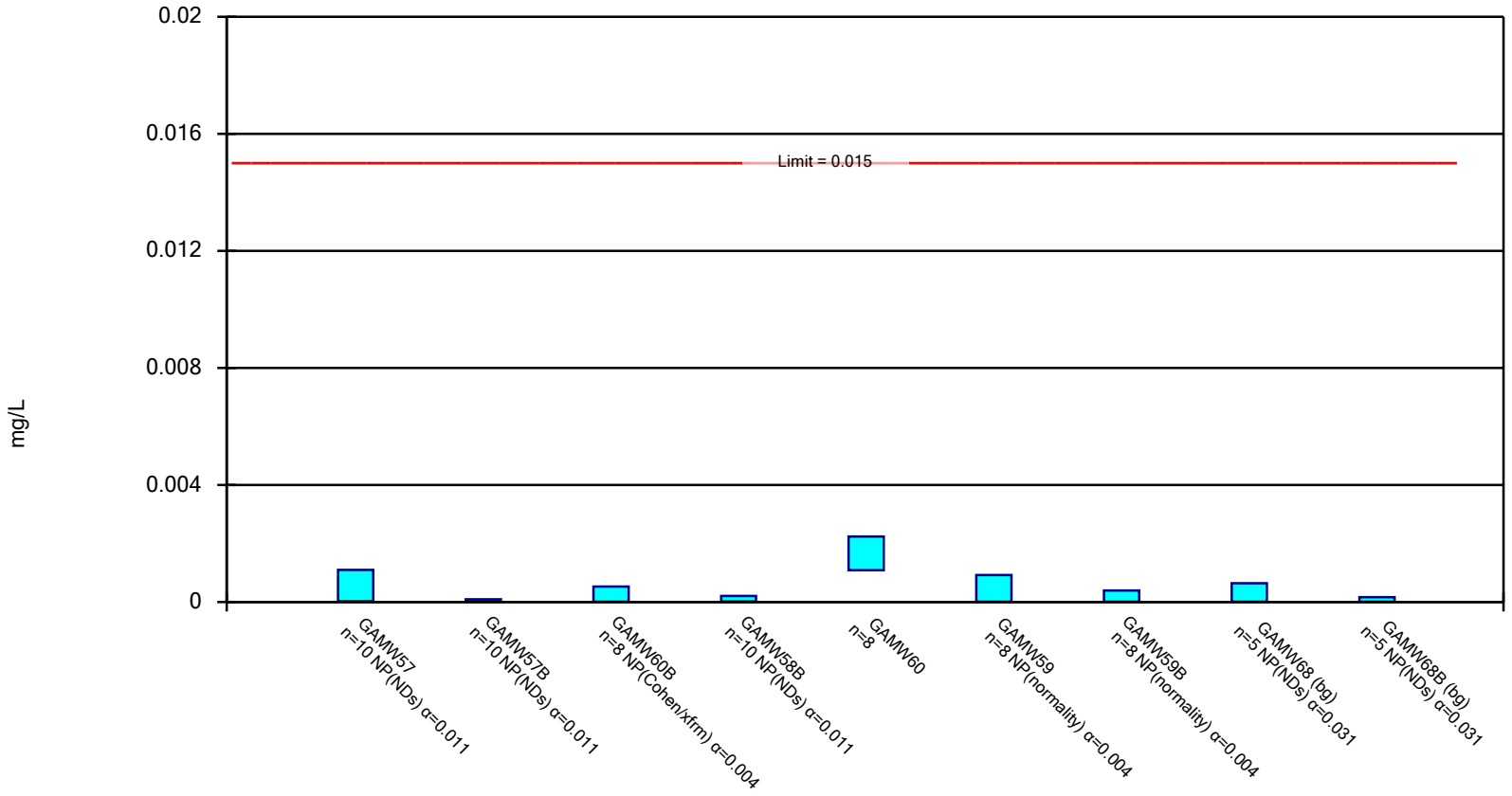


Constituent: Cobalt Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

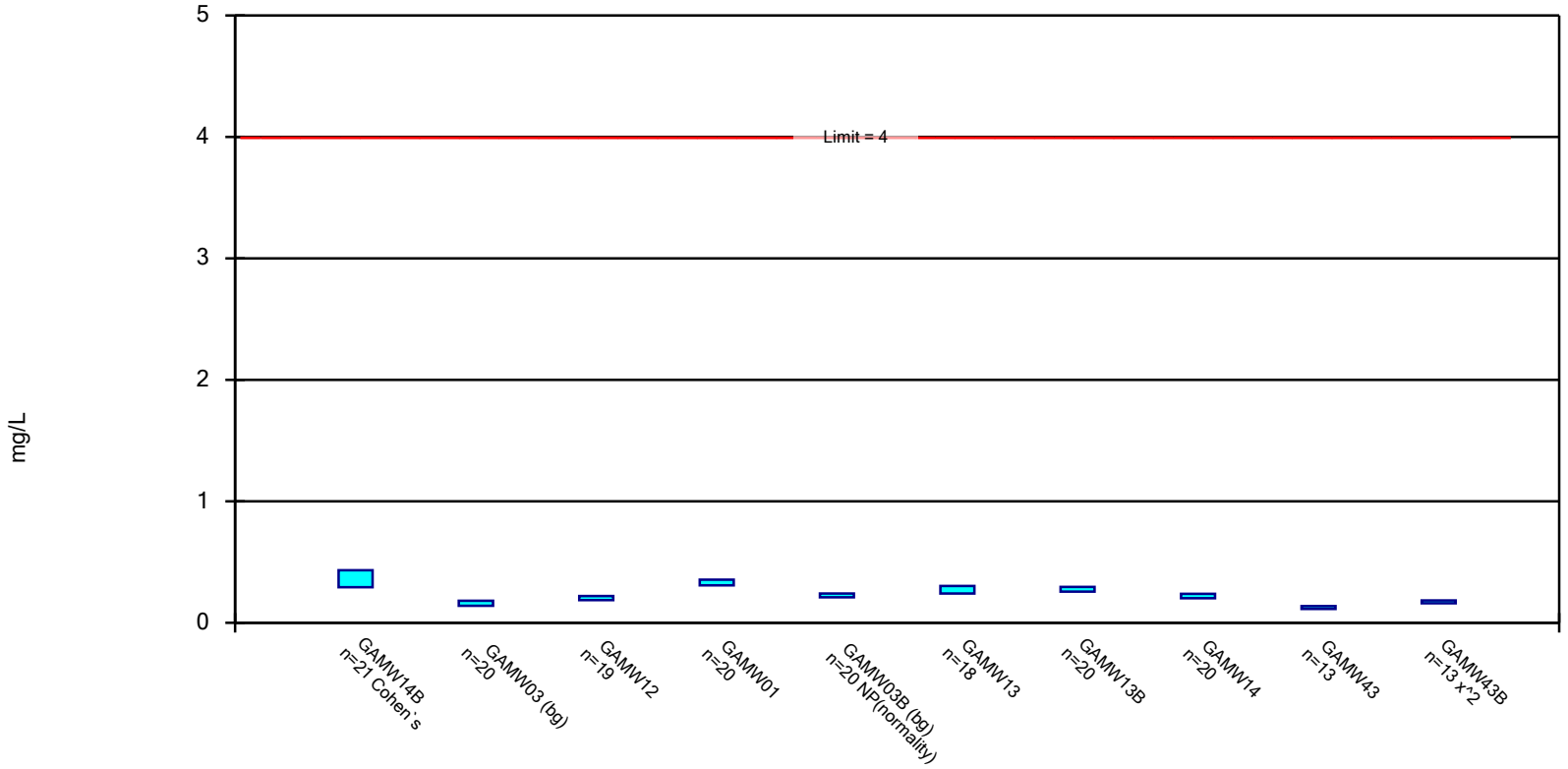


Constituent: Cobalt Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

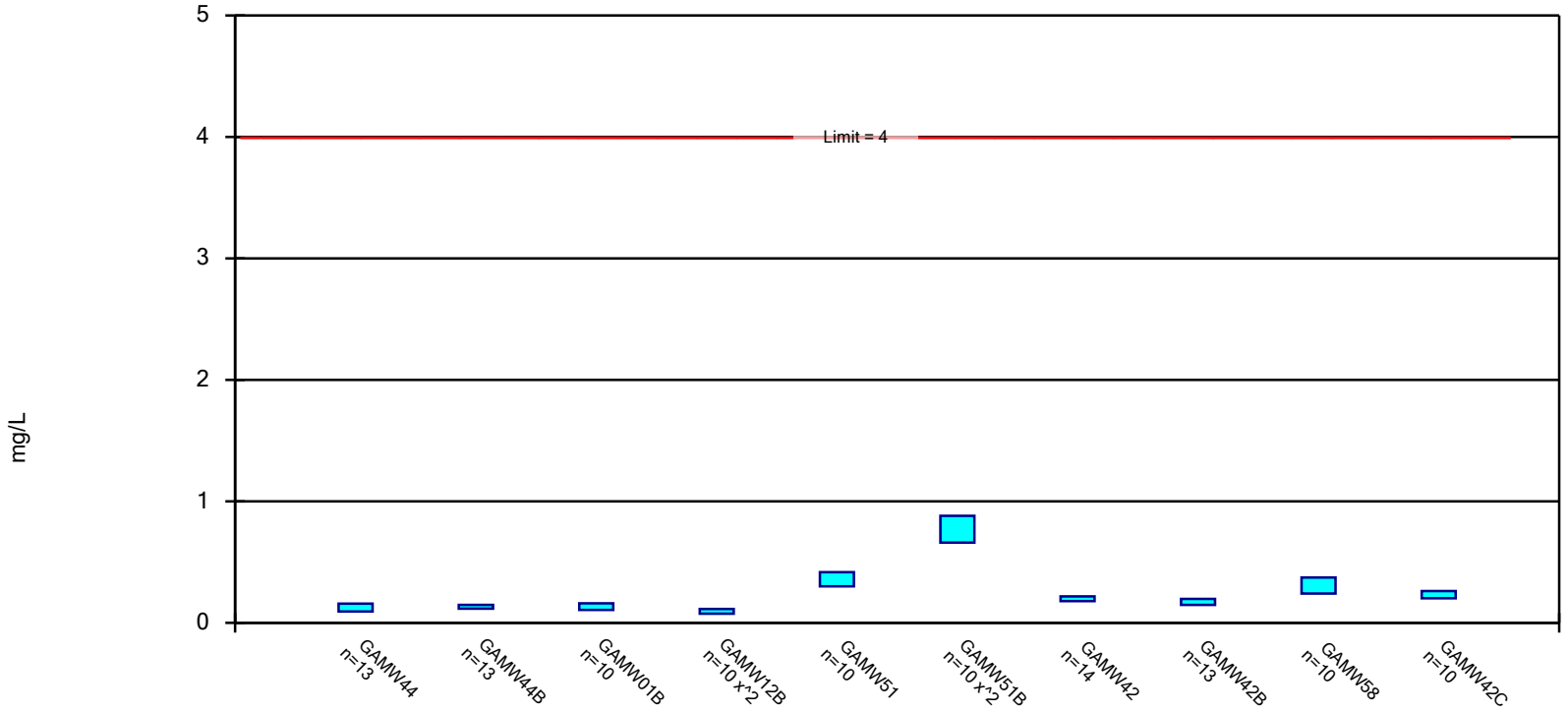


Constituent: Fluoride Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

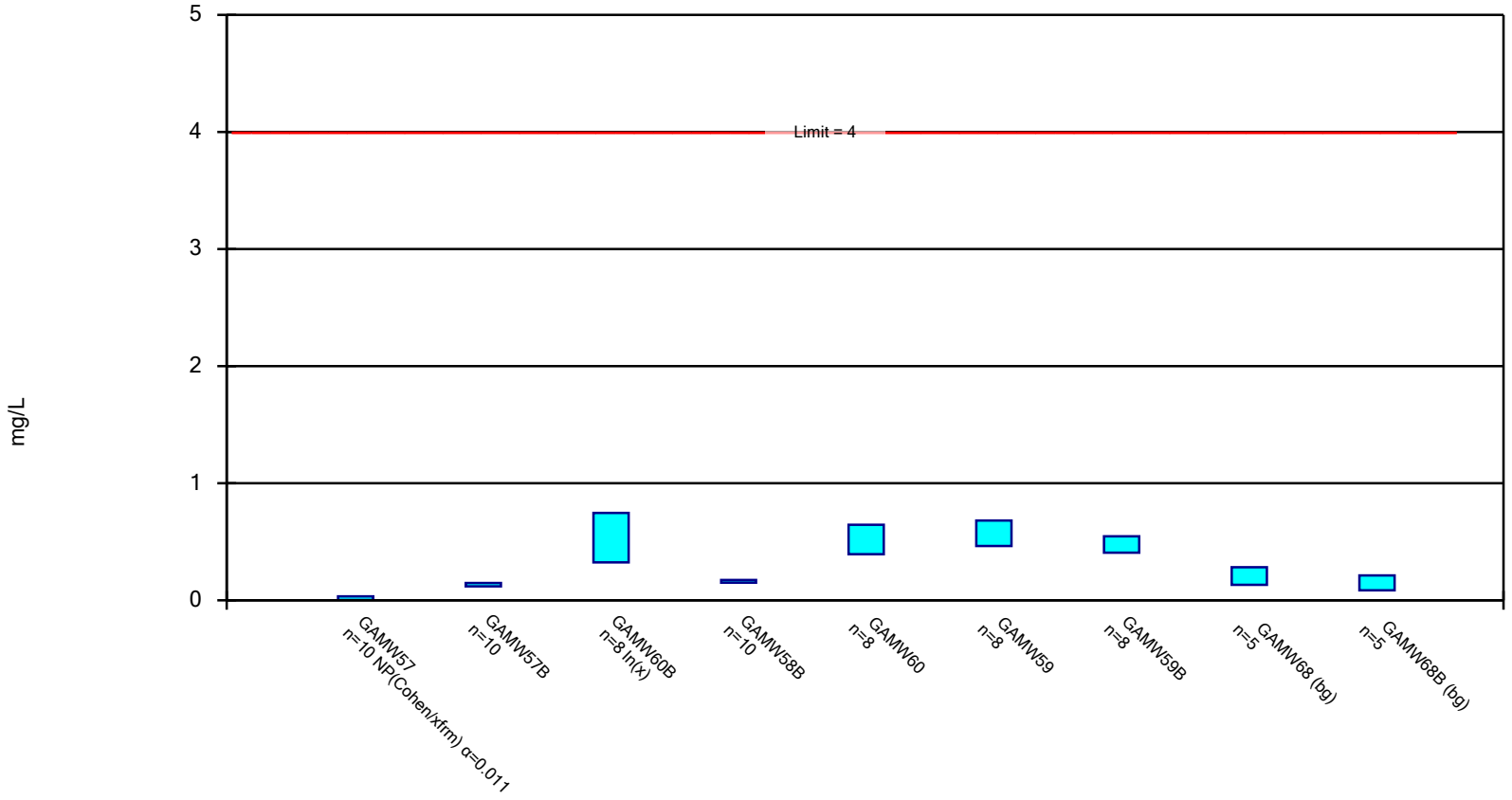


Constituent: Fluoride Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

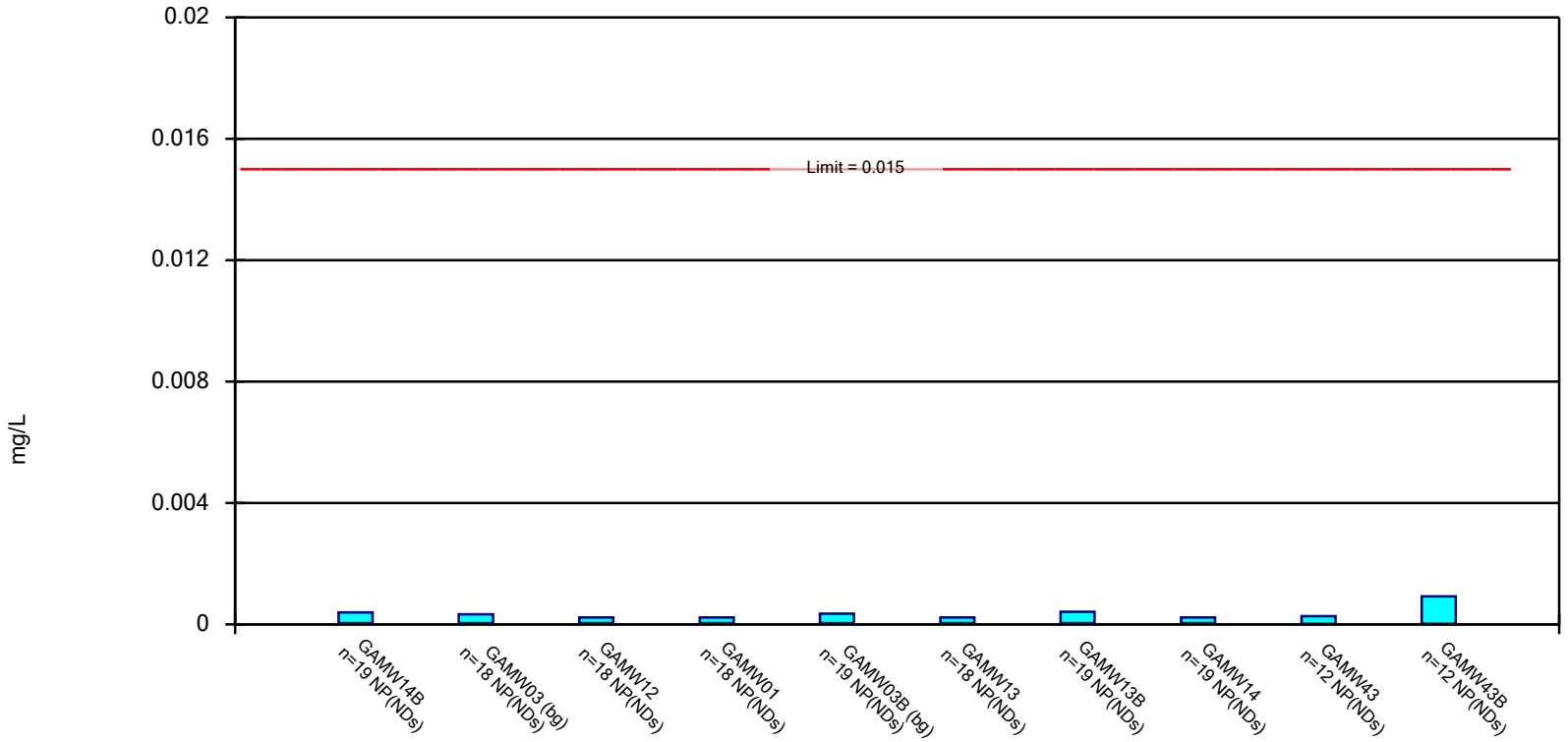


Constituent: Fluoride Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

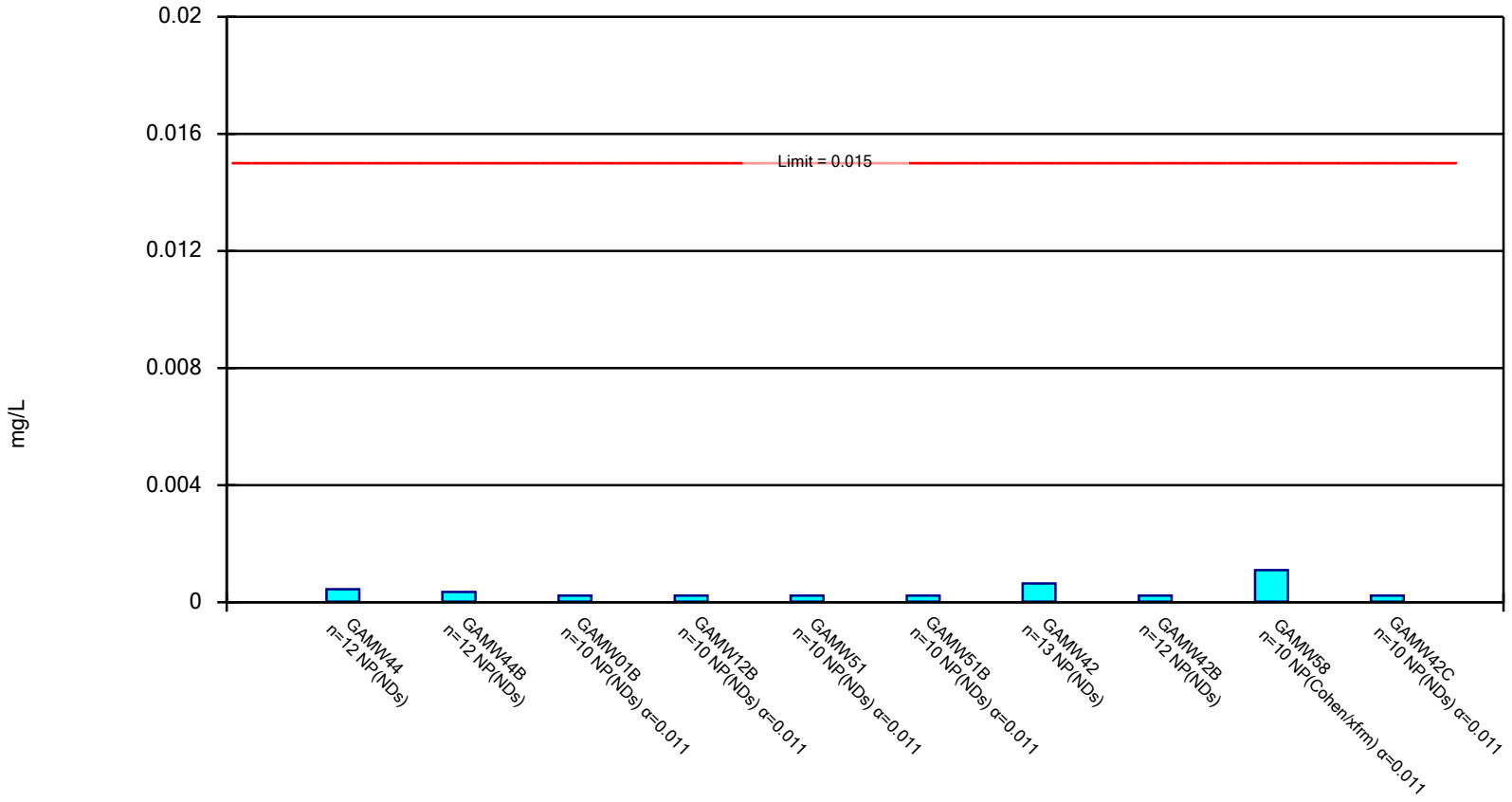


Constituent: Lead Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

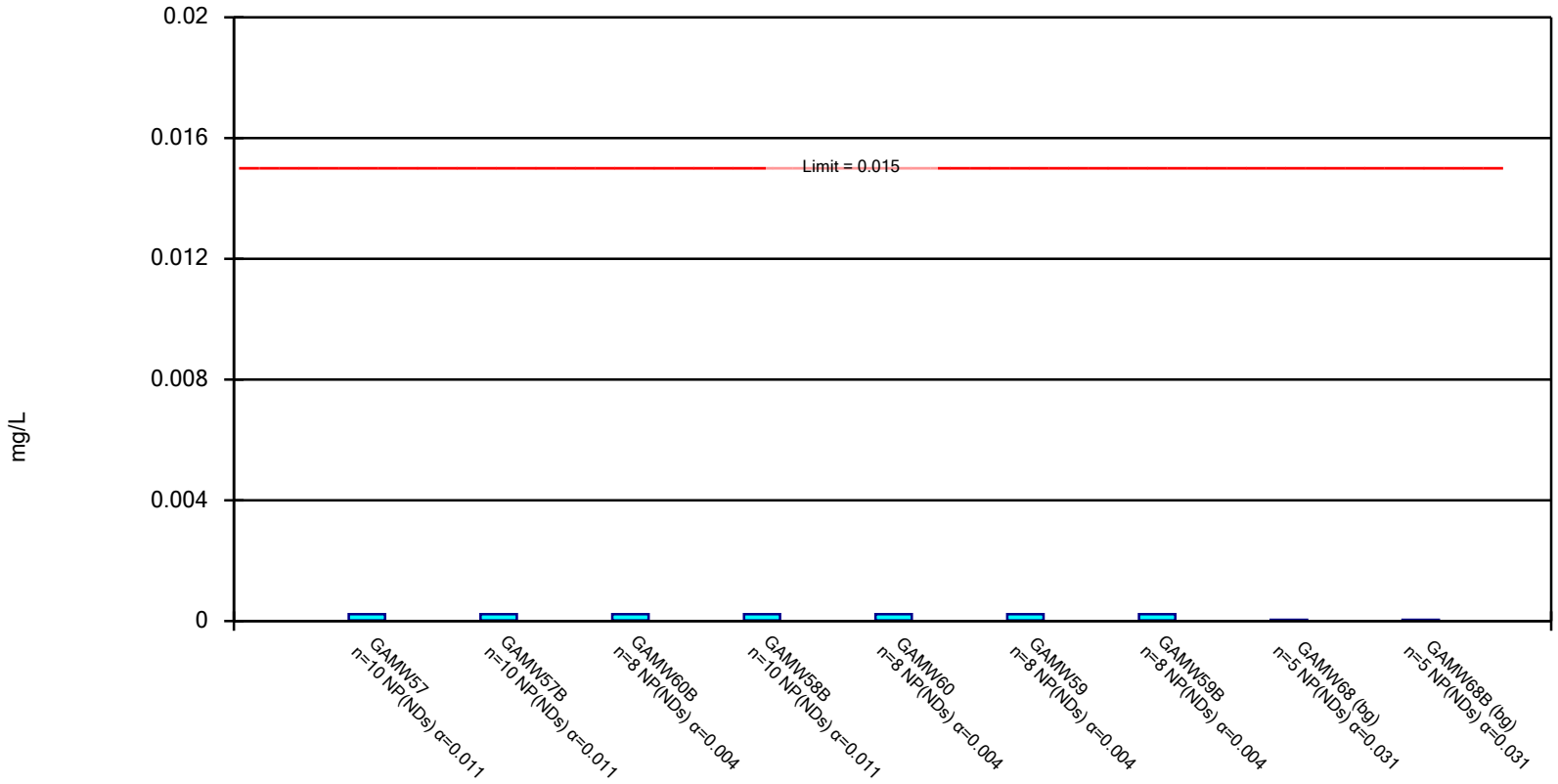


Constituent: Lead Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

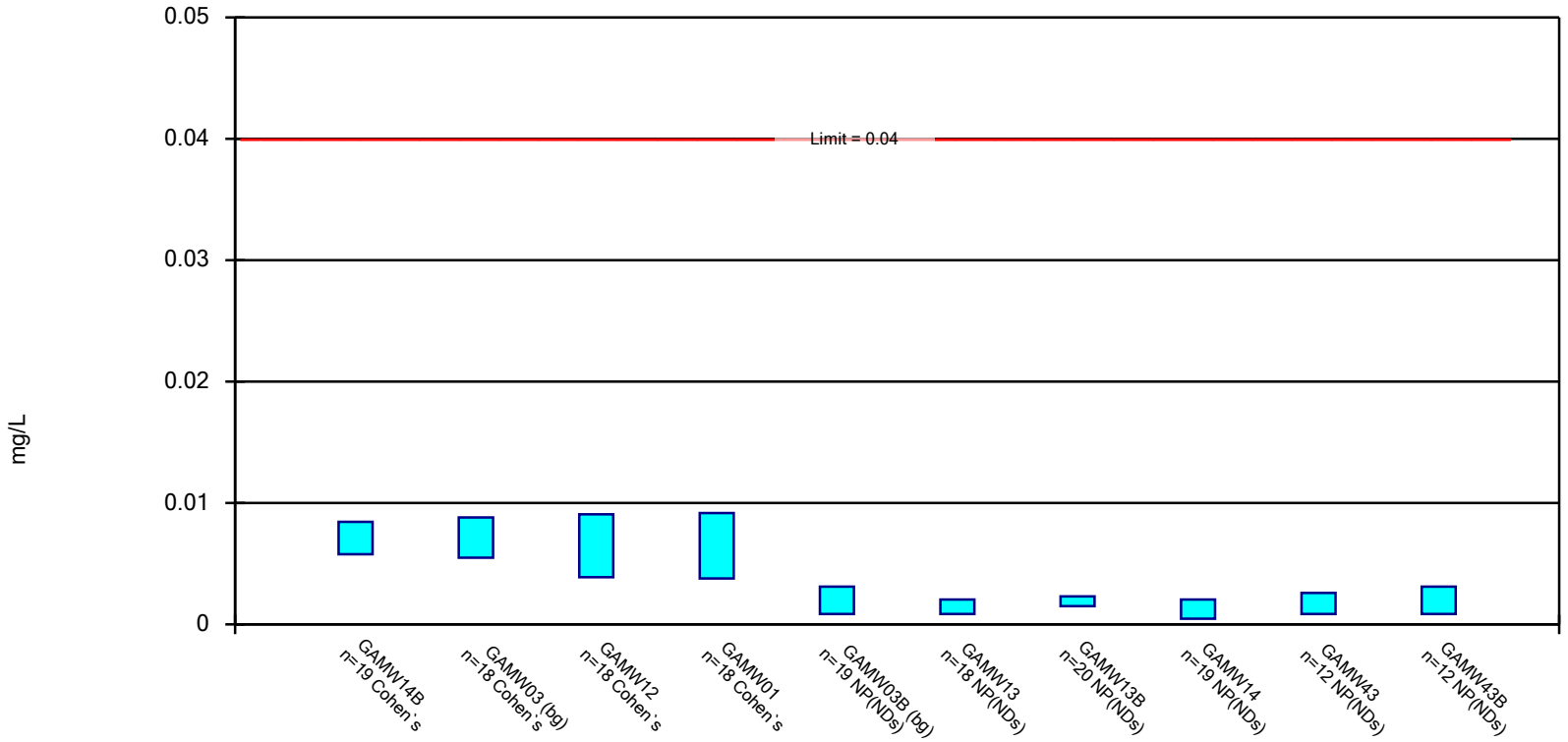


Constituent: Lead Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

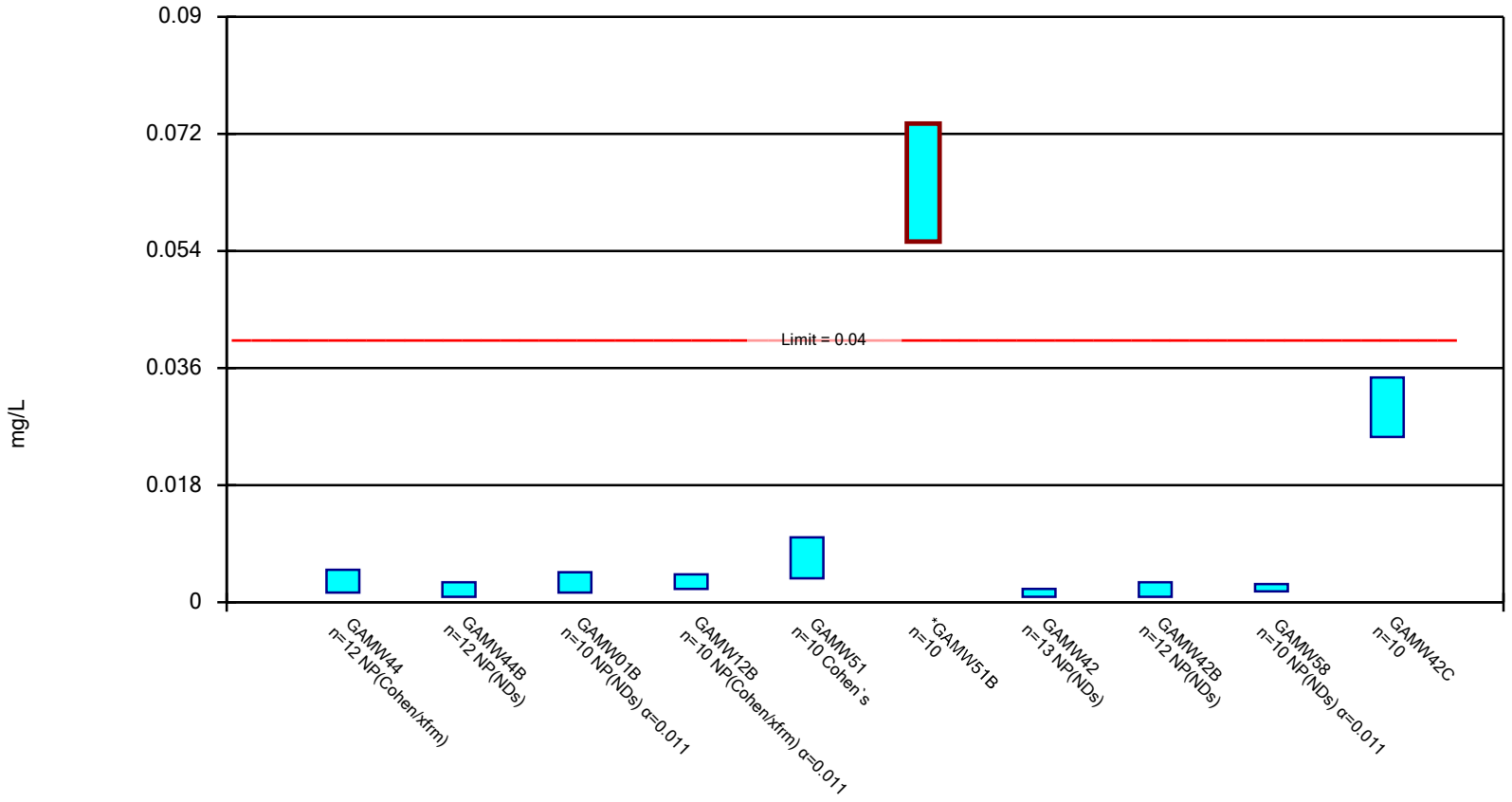


Constituent: Lithium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

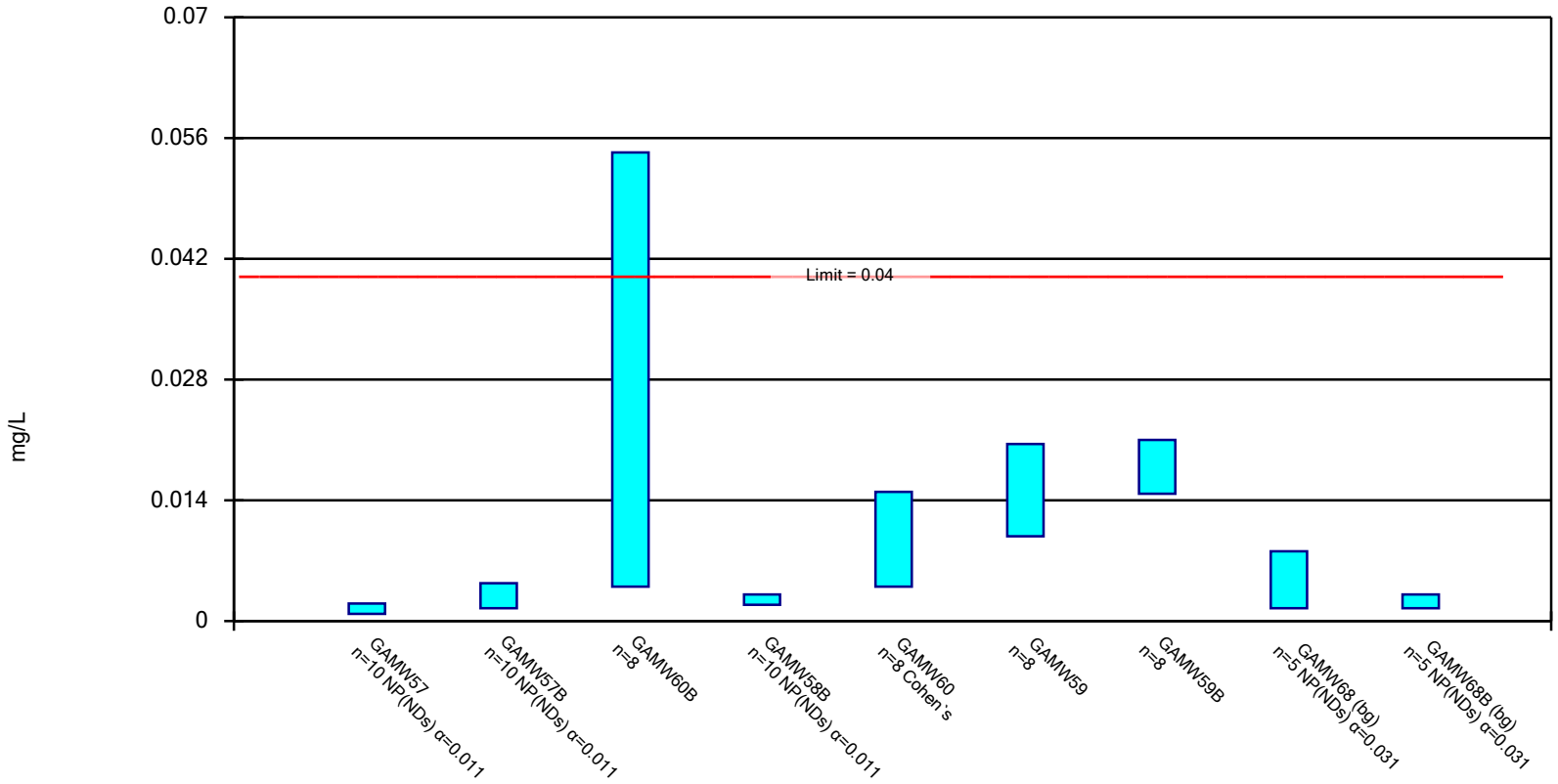


Constituent: Lithium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

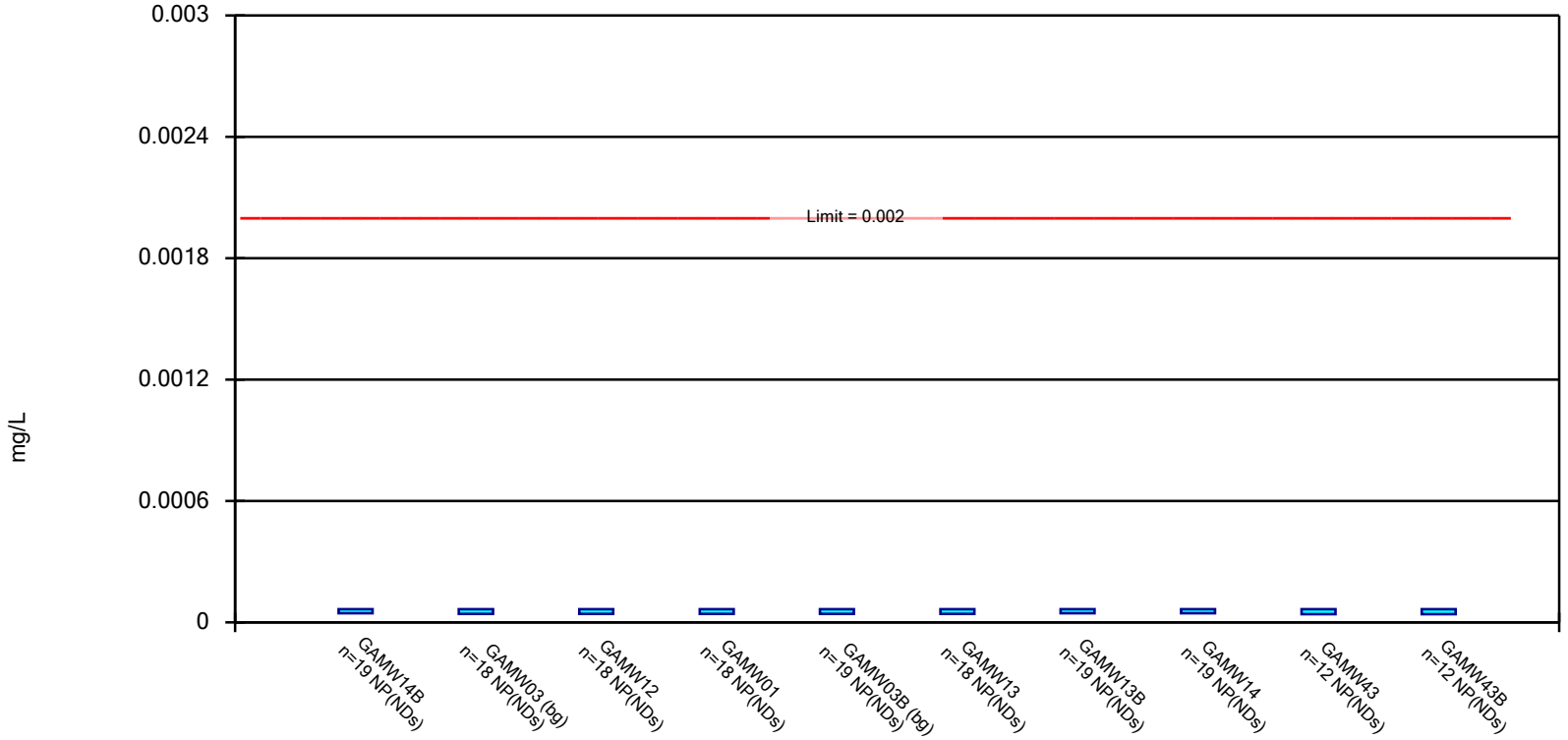


Constituent: Lithium Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

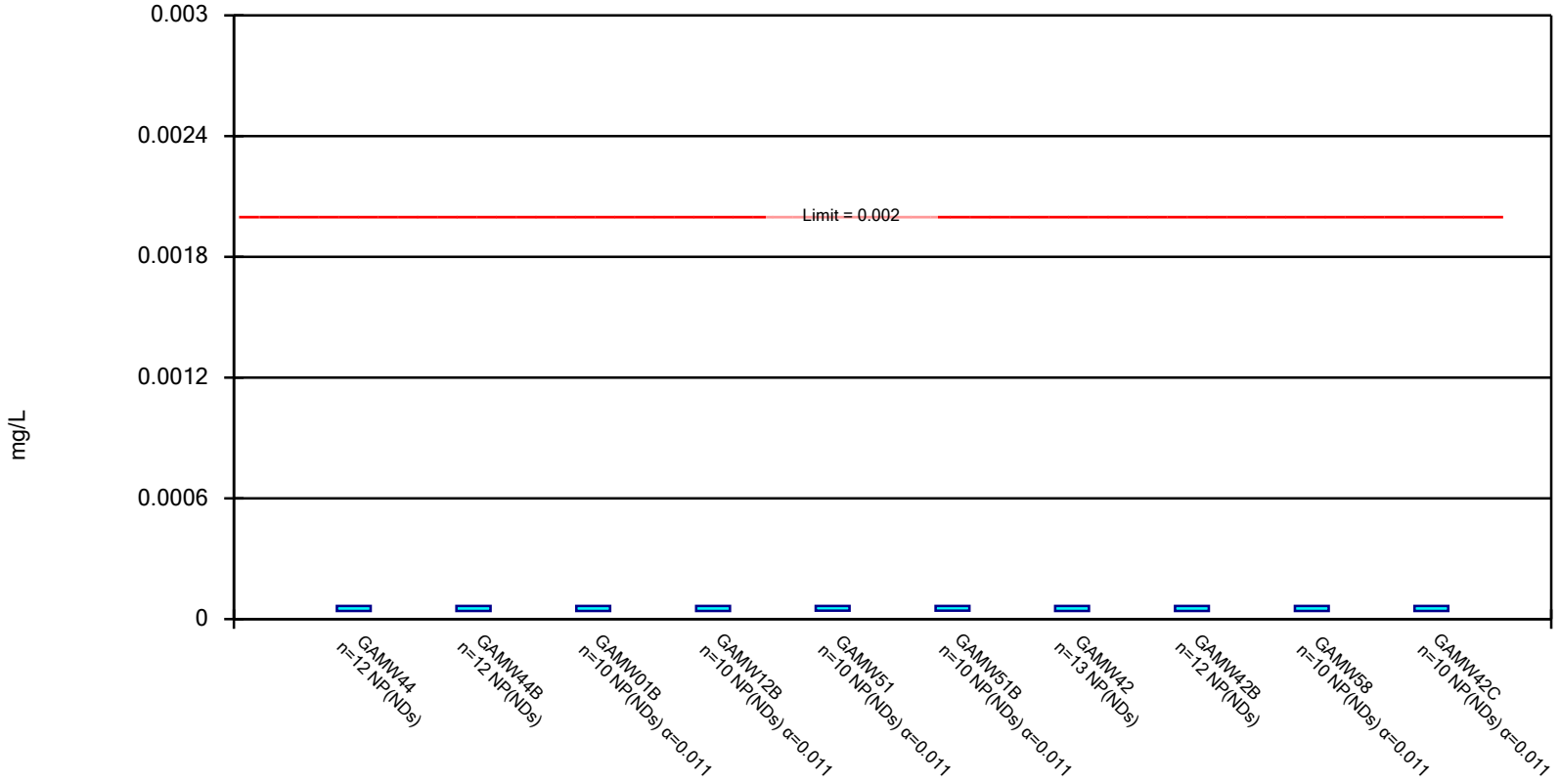


Constituent: Mercury Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

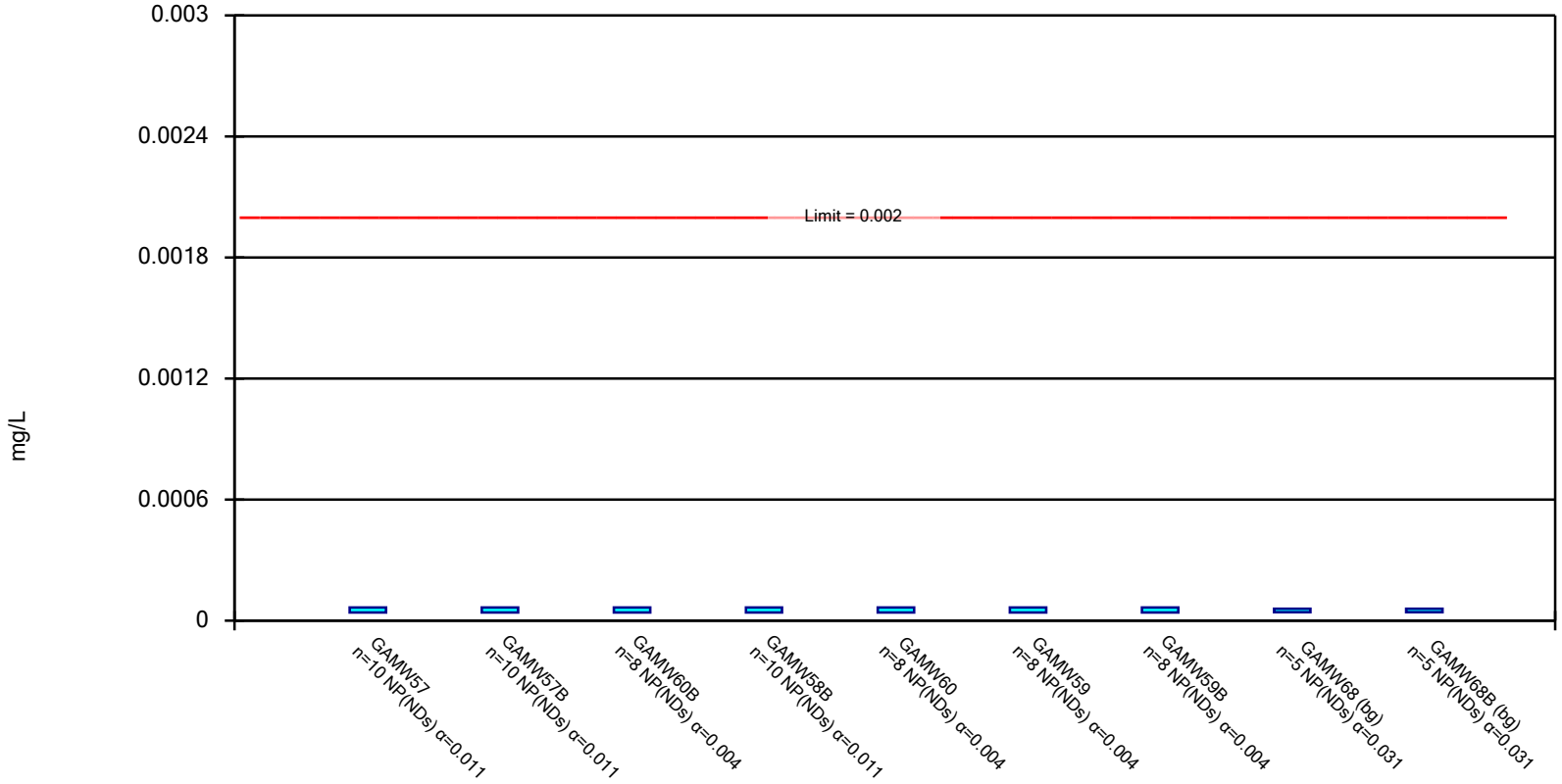


Constituent: Mercury Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

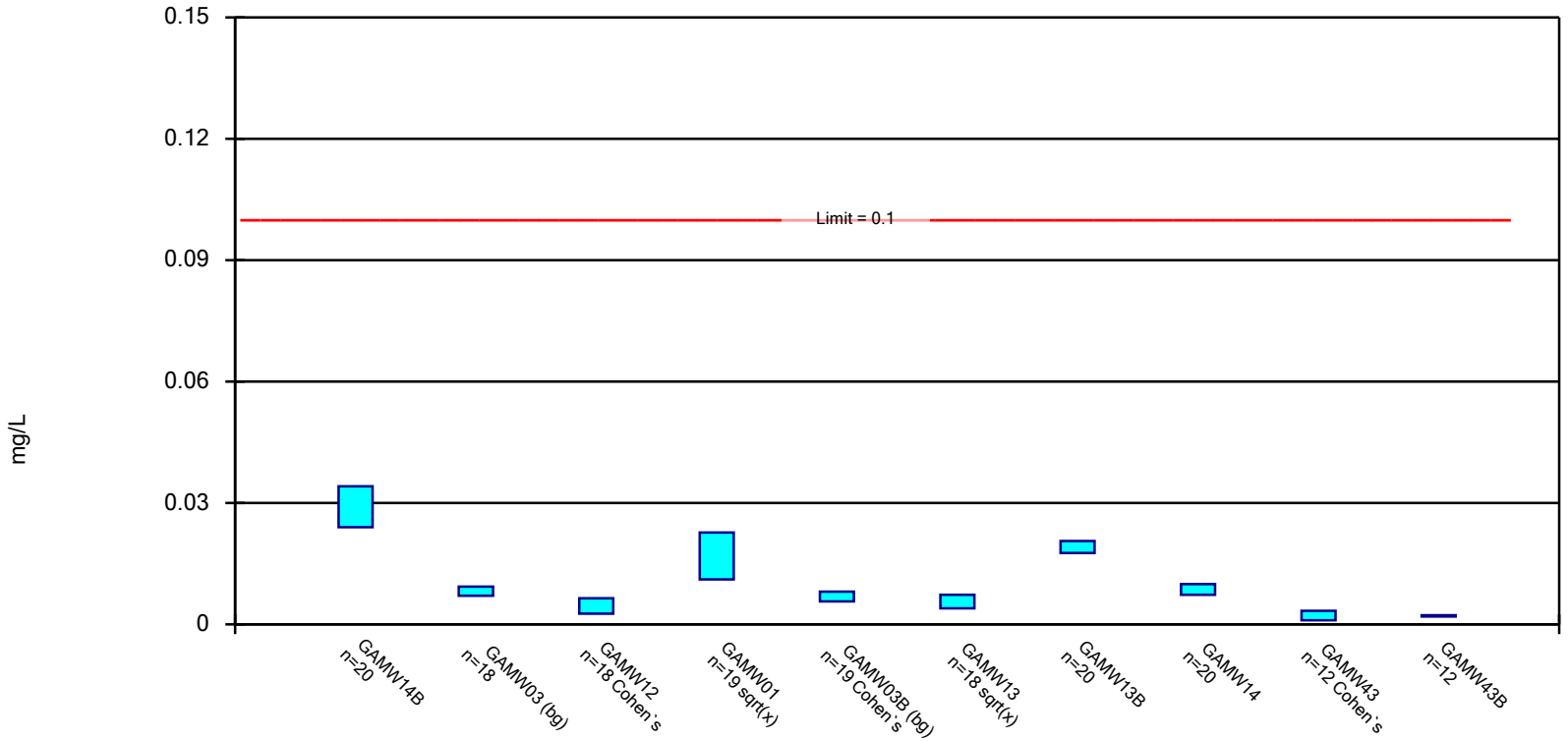


Constituent: Mercury Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

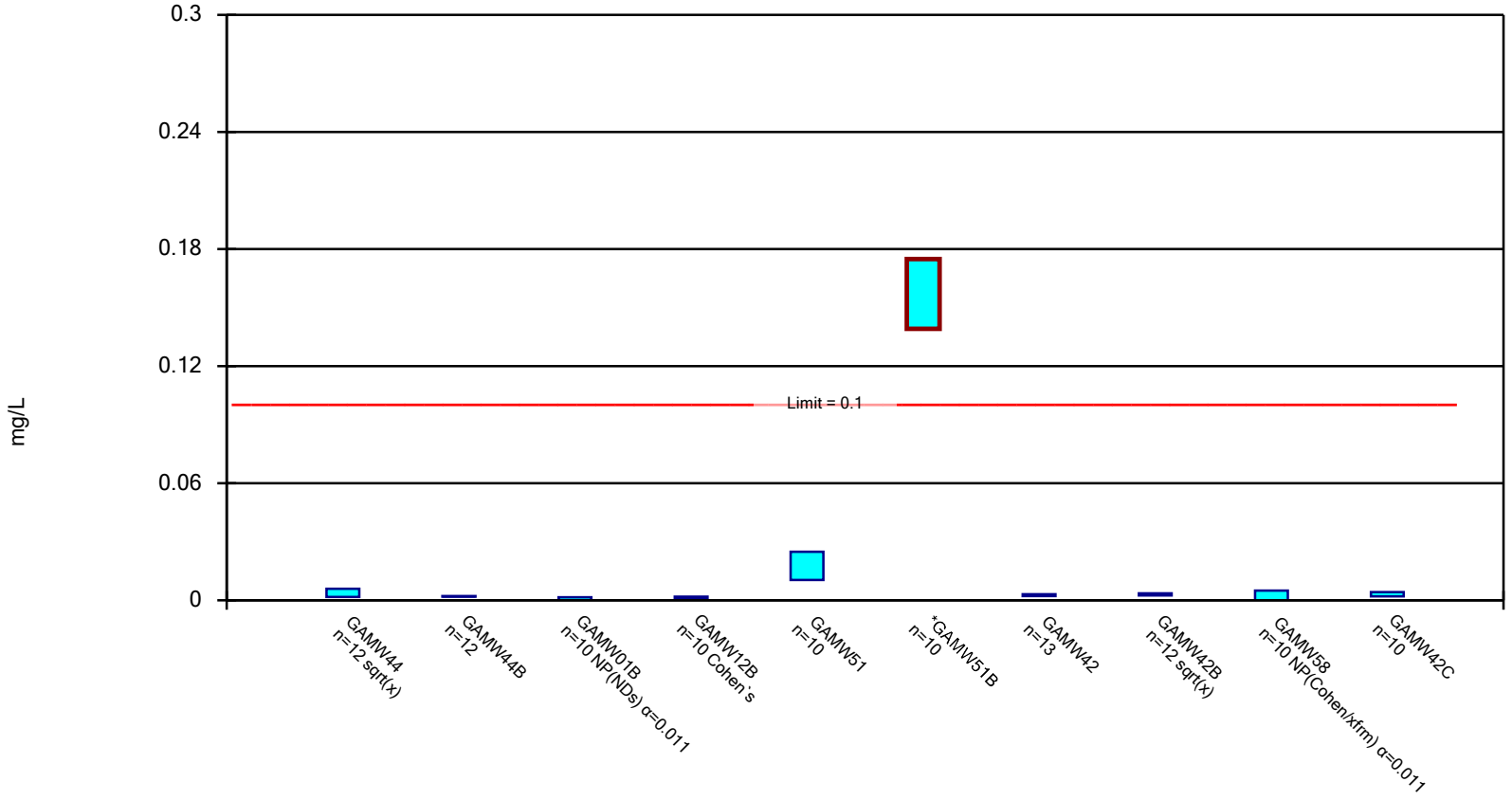


Constituent: Molybdenum Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

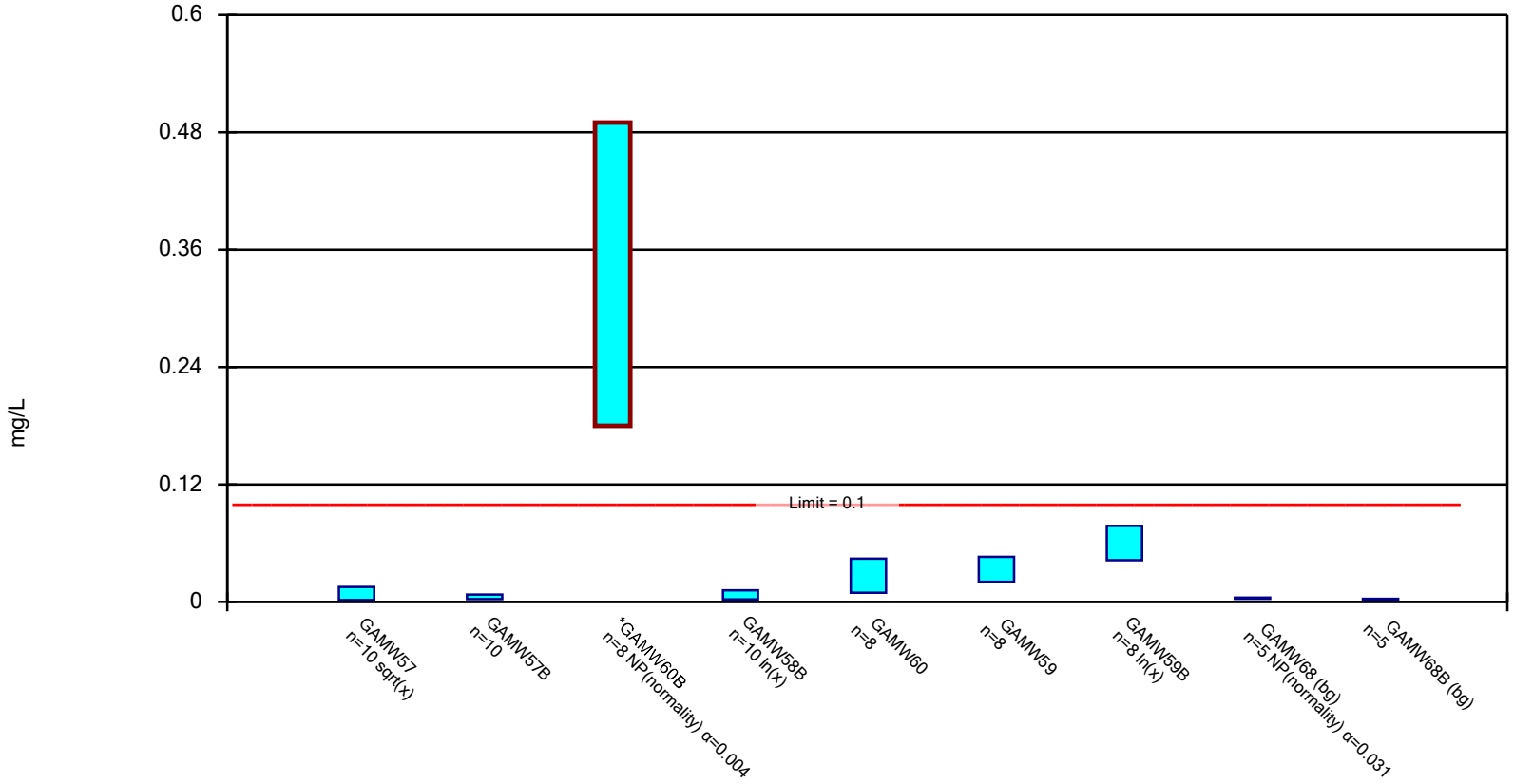


Constituent: Molybdenum Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

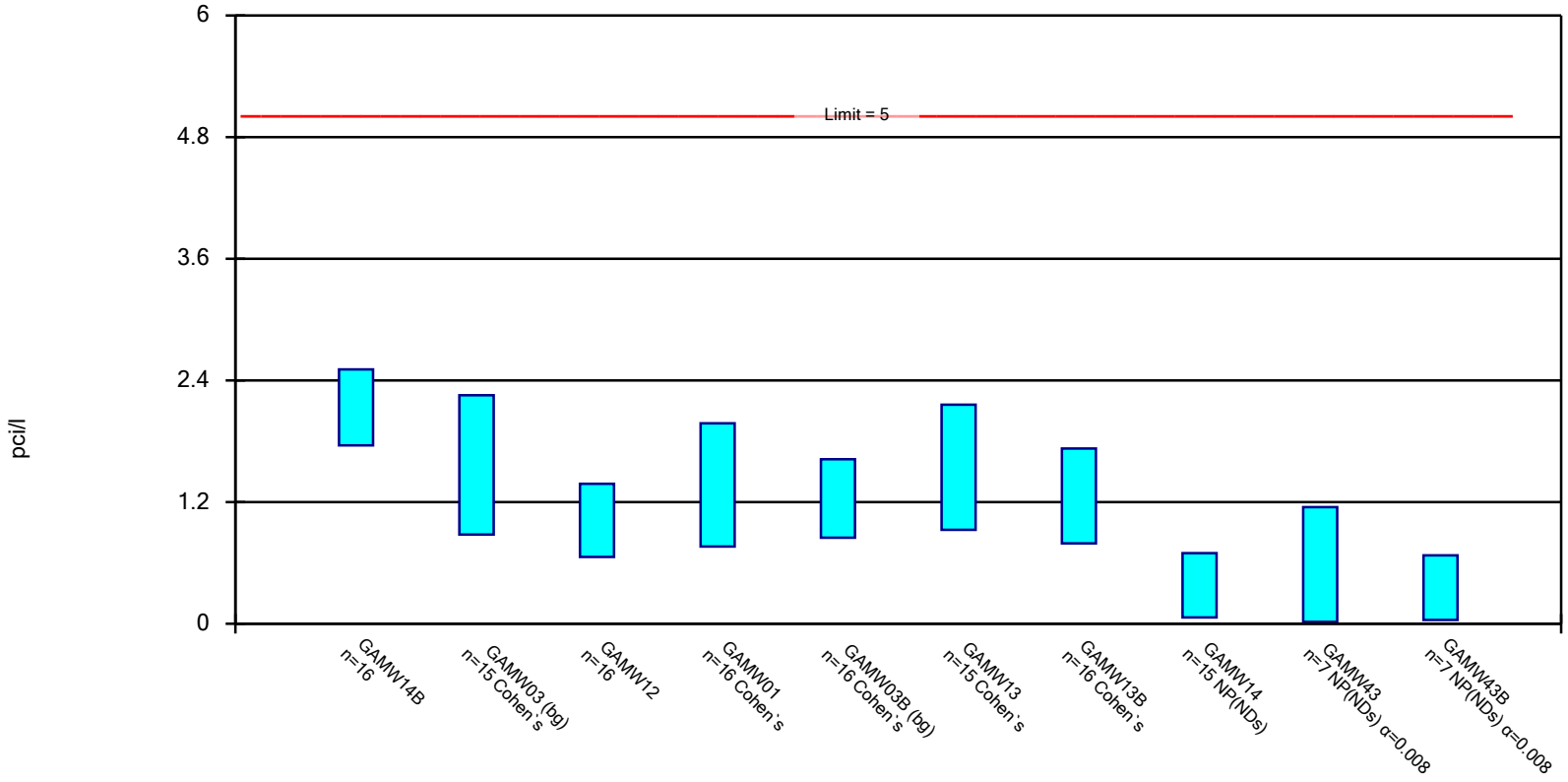


Constituent: Molybdenum Analysis Run 1/6/2023 10:54 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

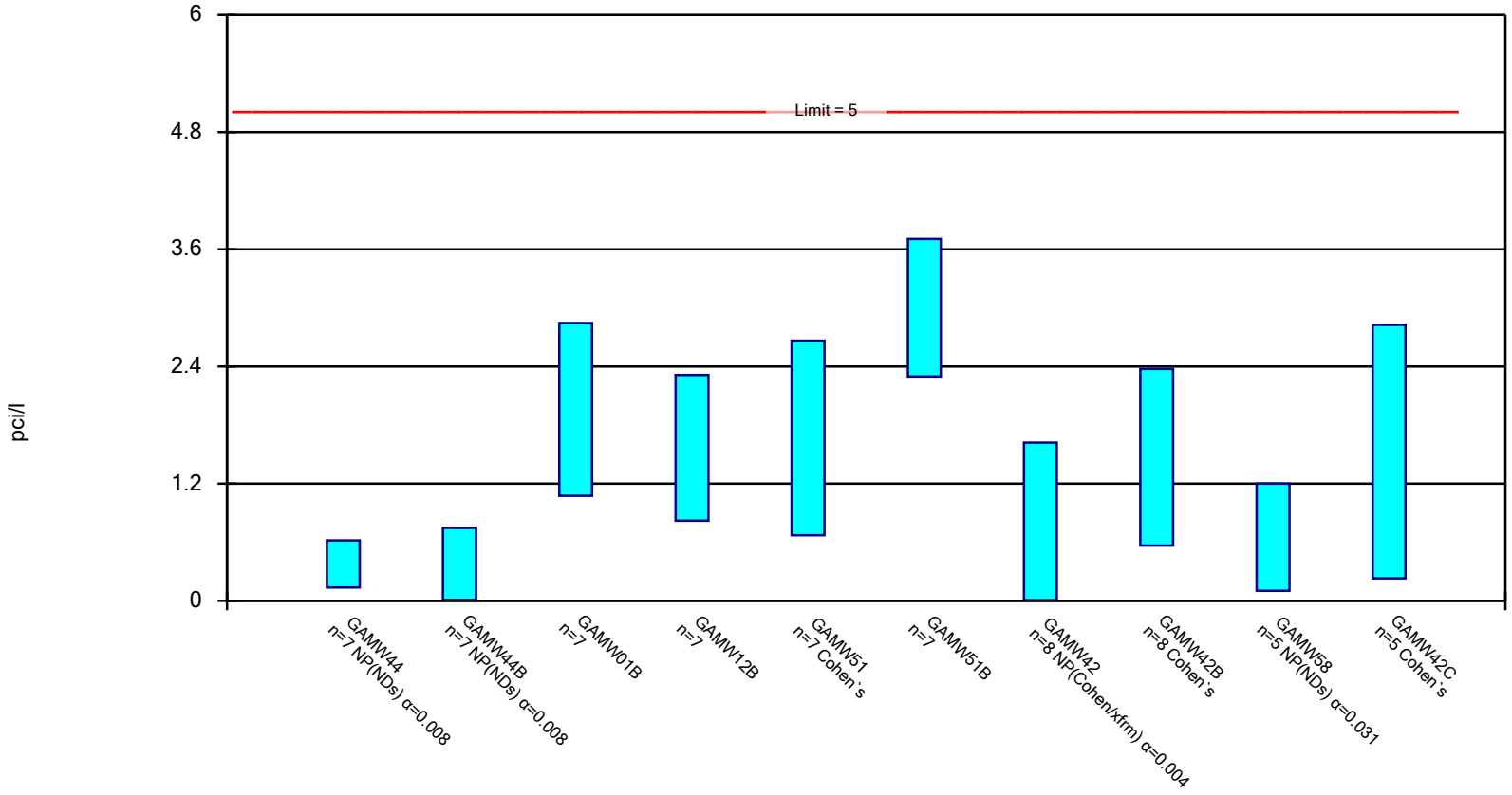


Constituent: Radium 226 + 228 Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

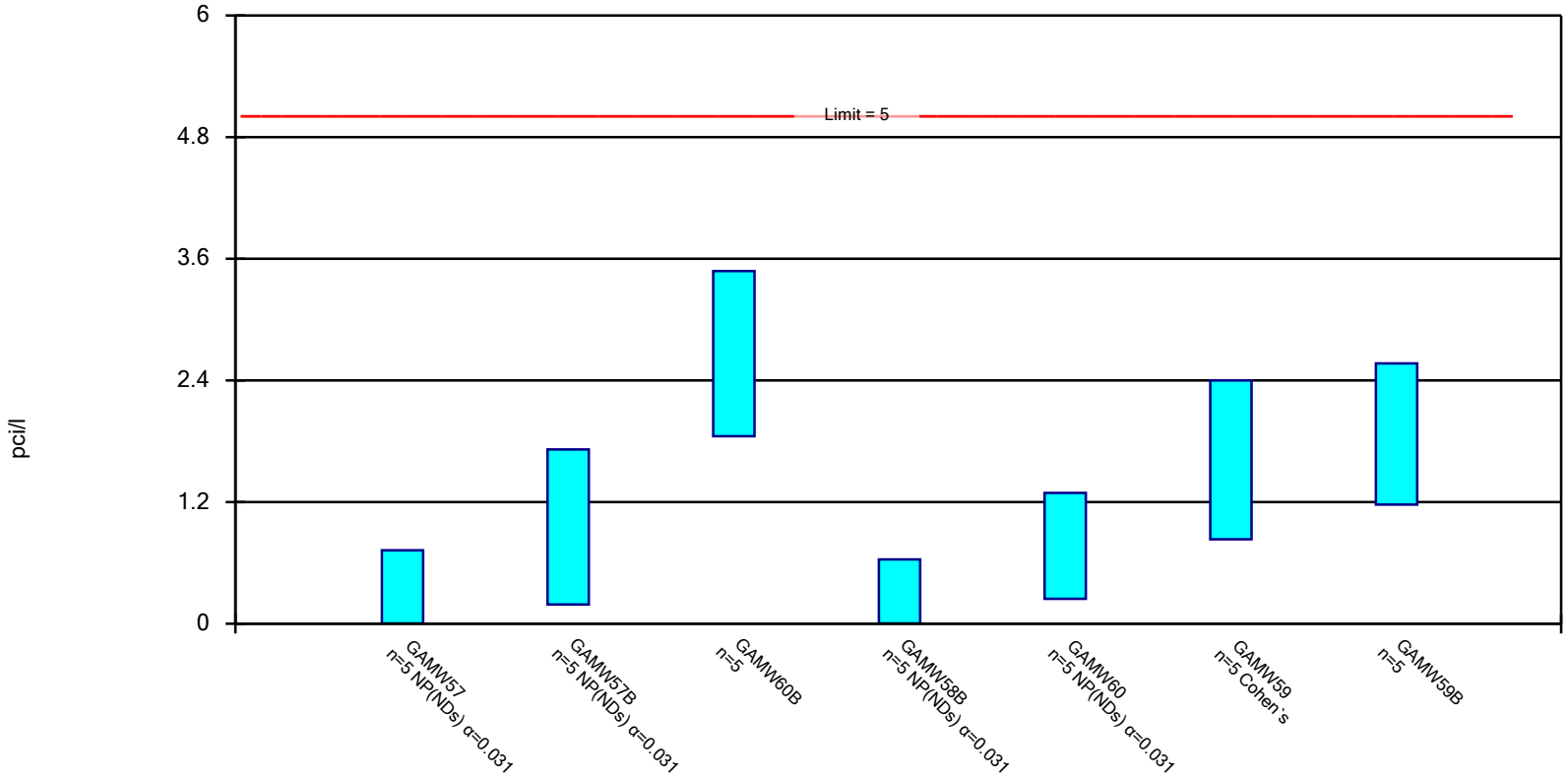


Constituent: Radium 226 + 228 Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

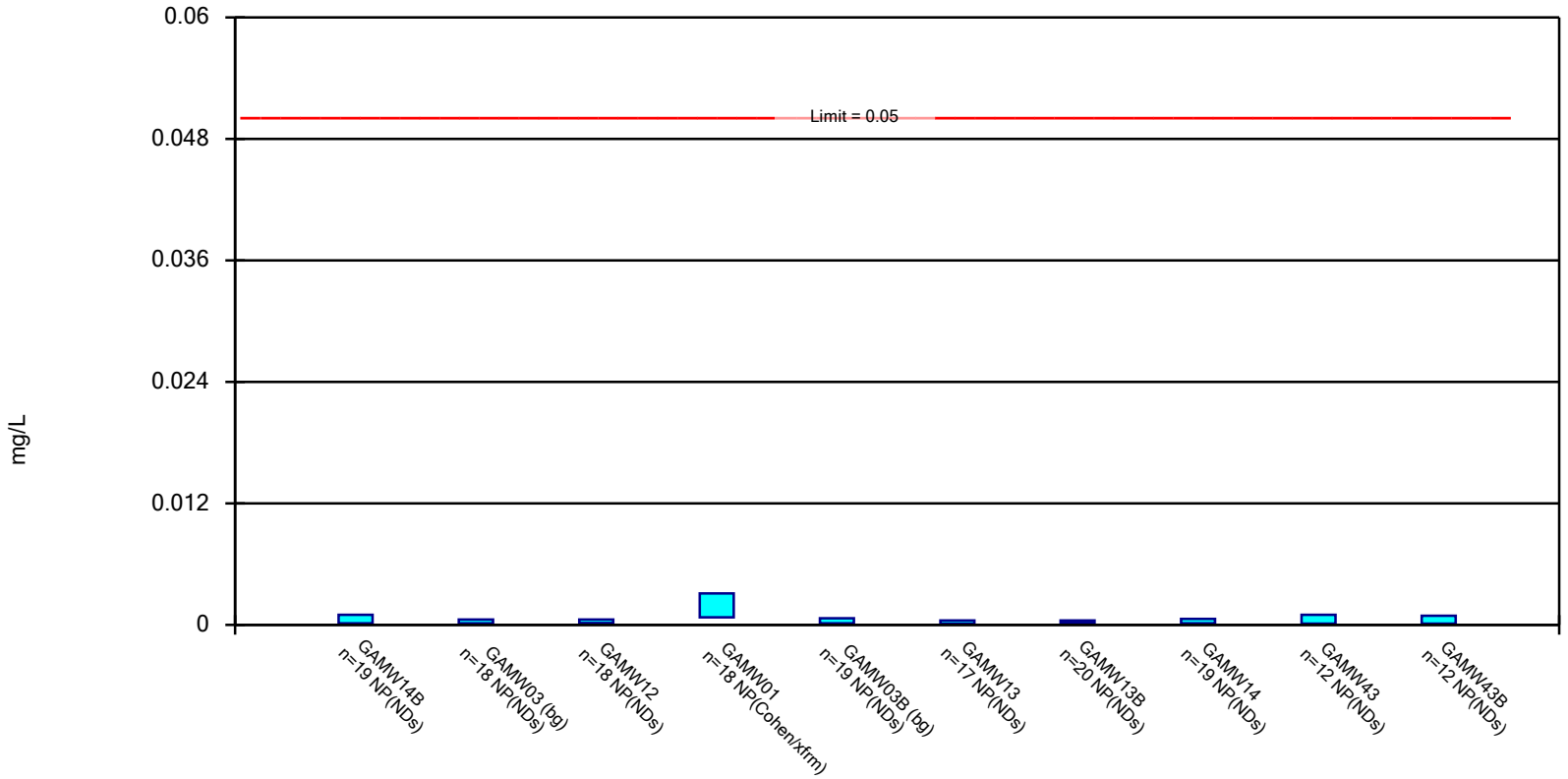


Constituent: Radium 226 + 228 Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

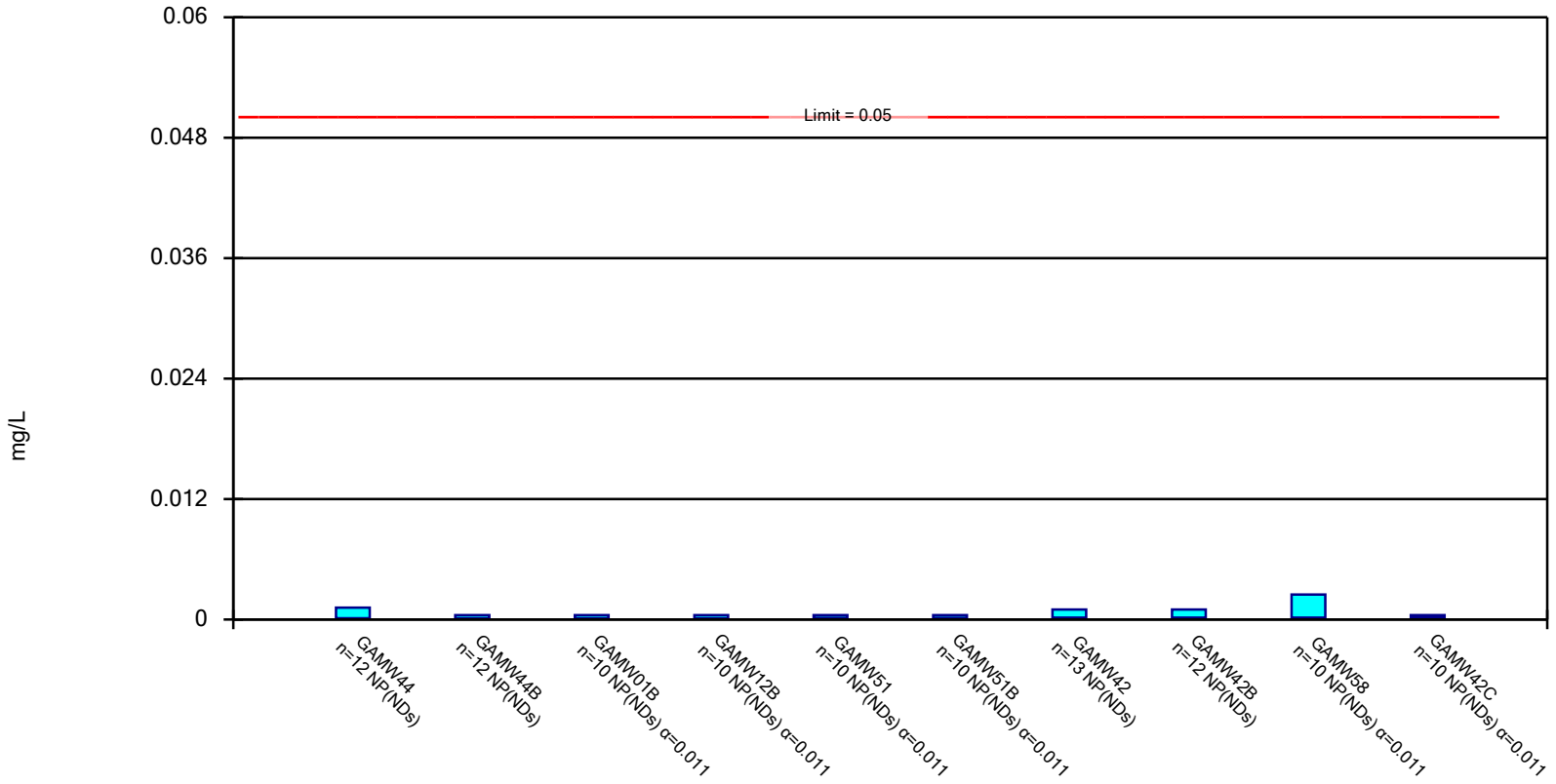


Constituent: Selenium Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

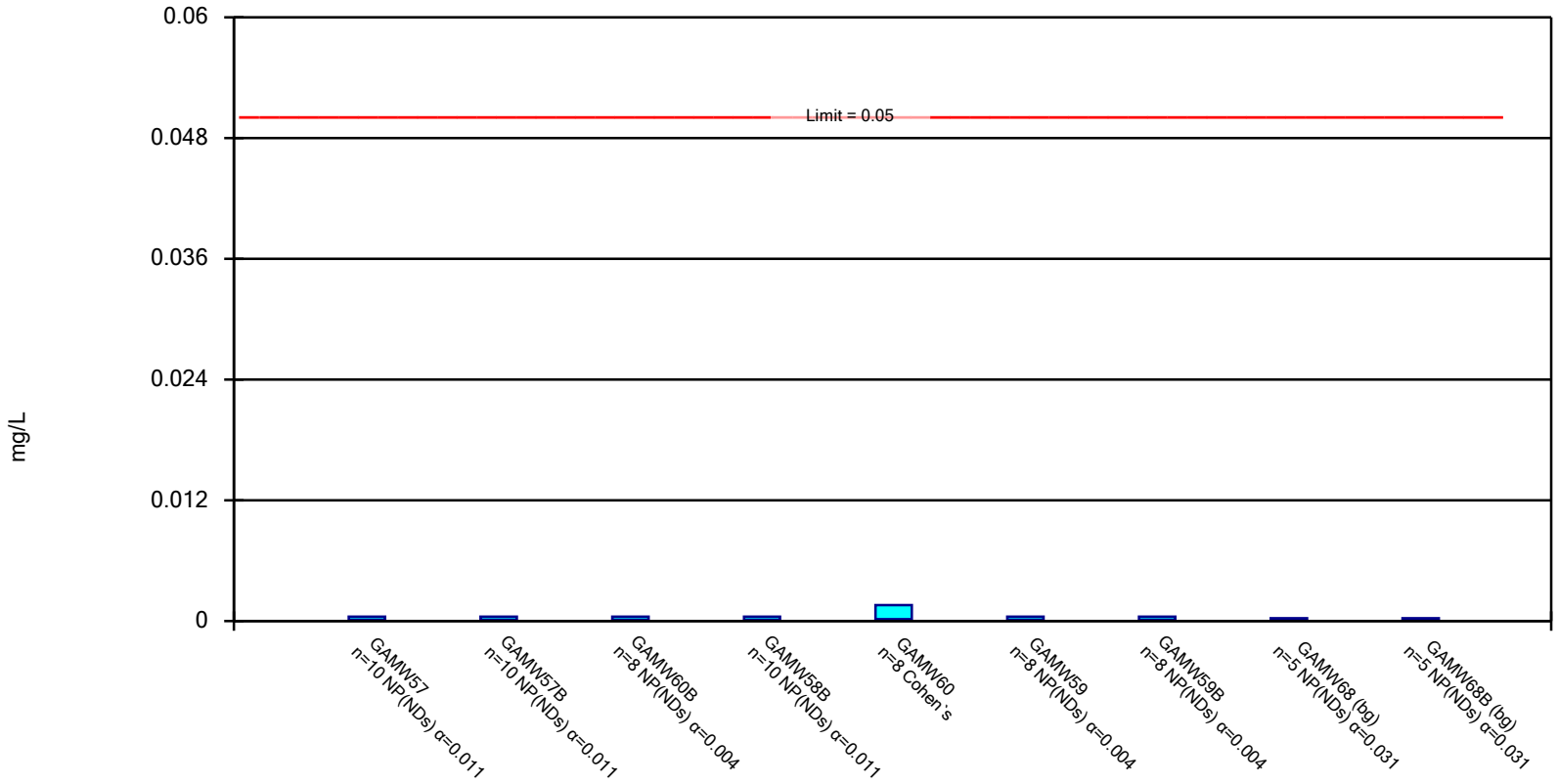


Constituent: Selenium Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

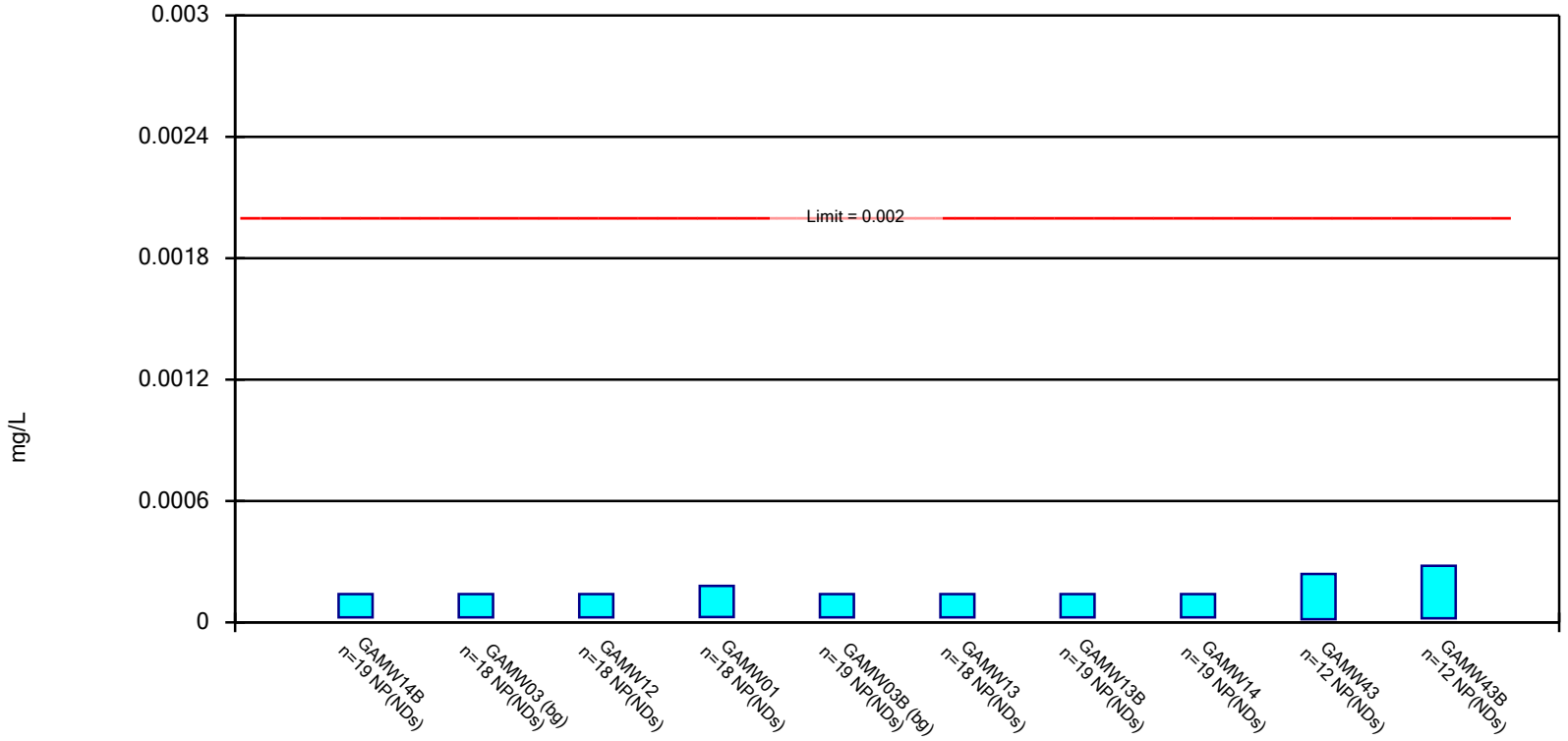


Constituent: Selenium Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

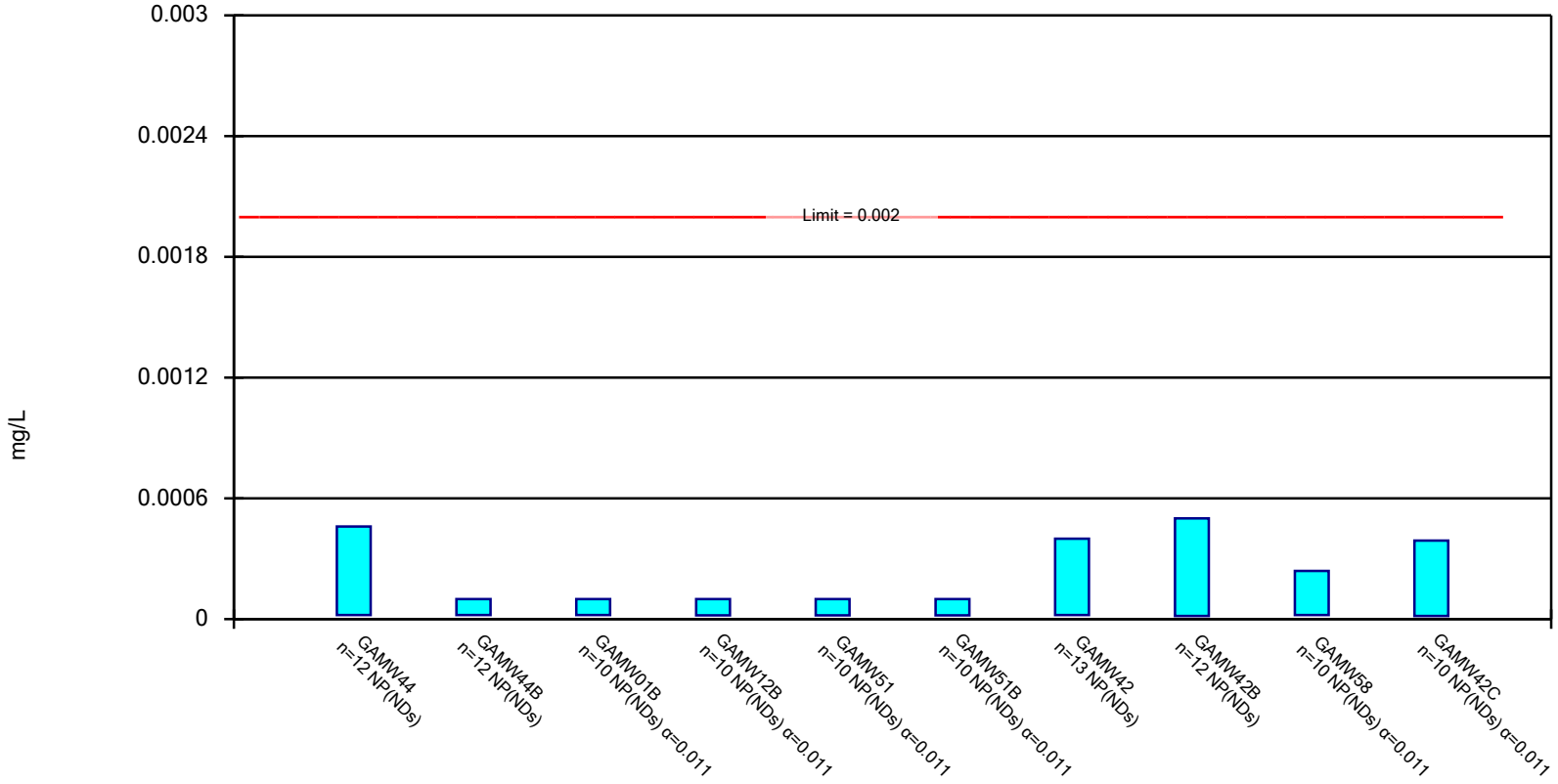


Constituent: Thallium Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

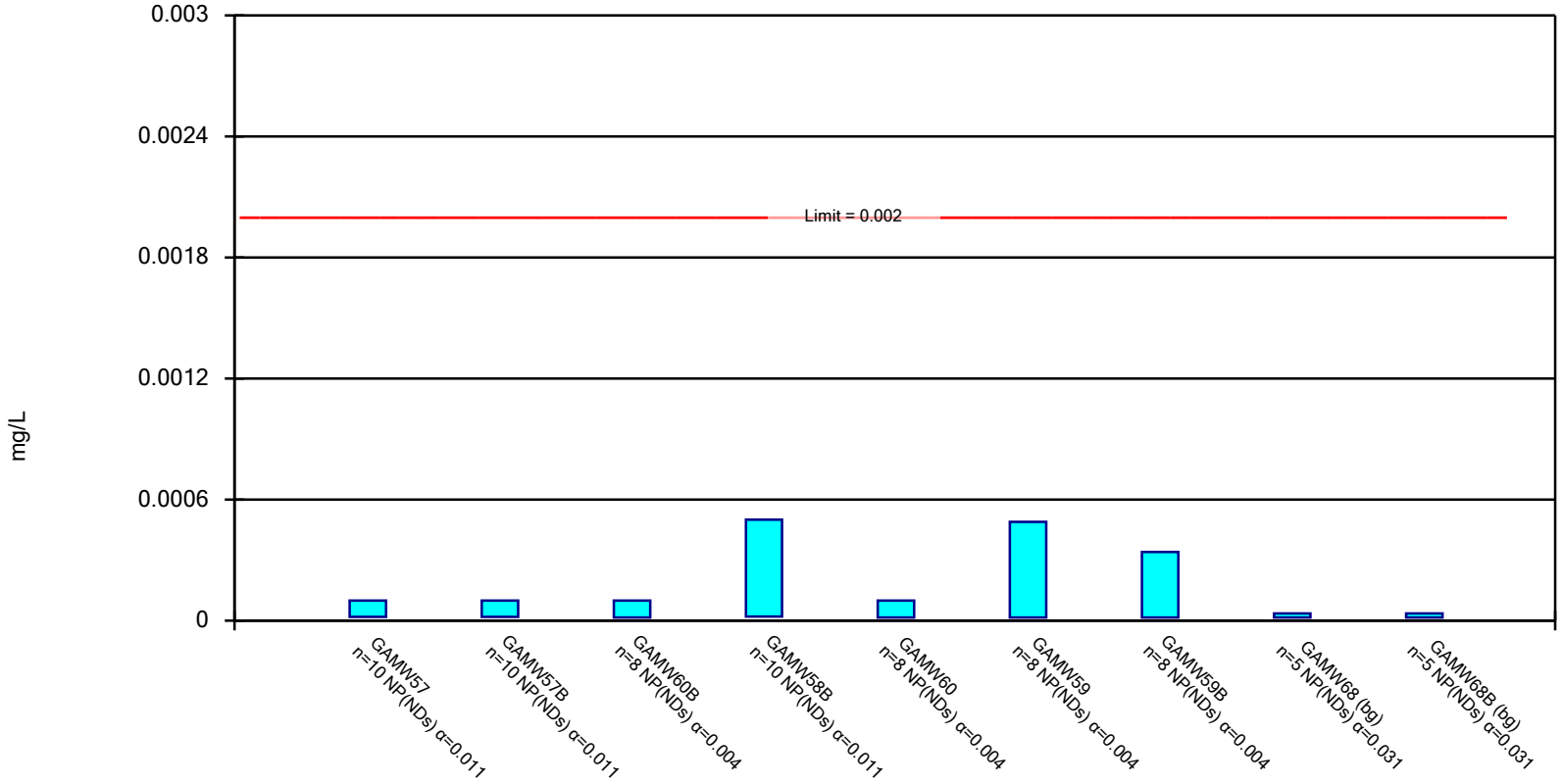


Constituent: Thallium Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

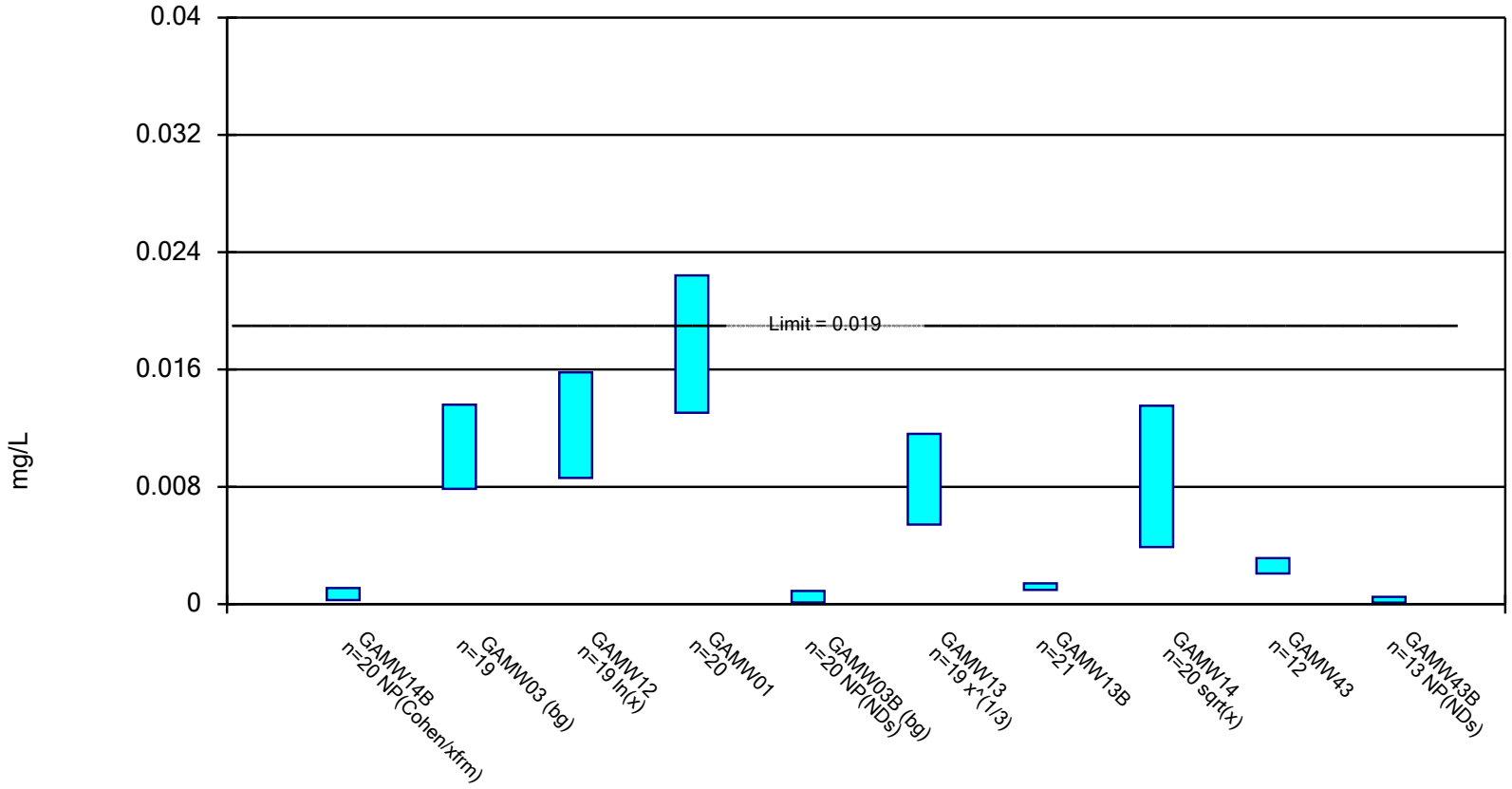


Constituent: Thallium Analysis Run 1/6/2023 10:55 AM View: WDA

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

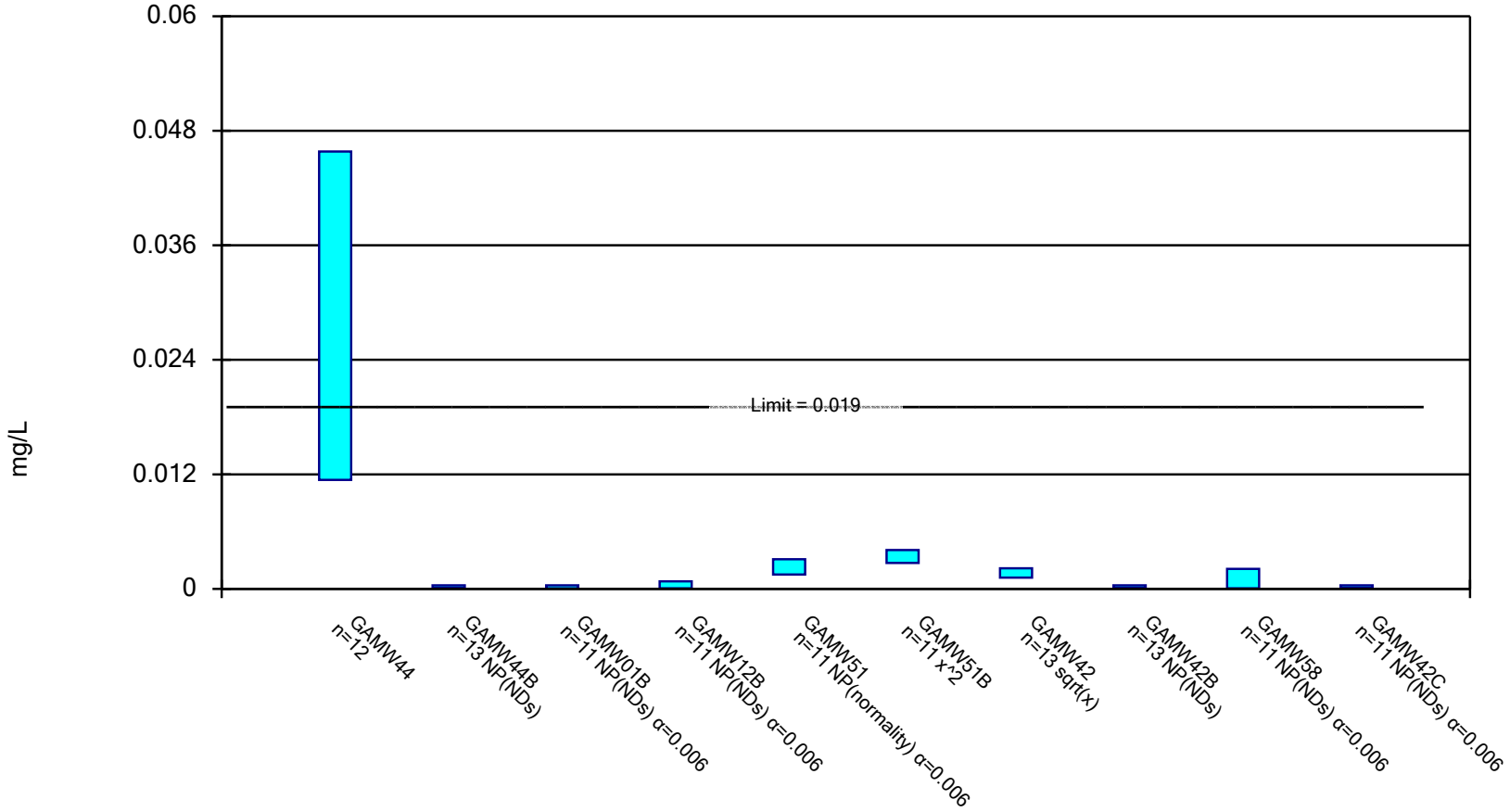


Constituent: Arsenic Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

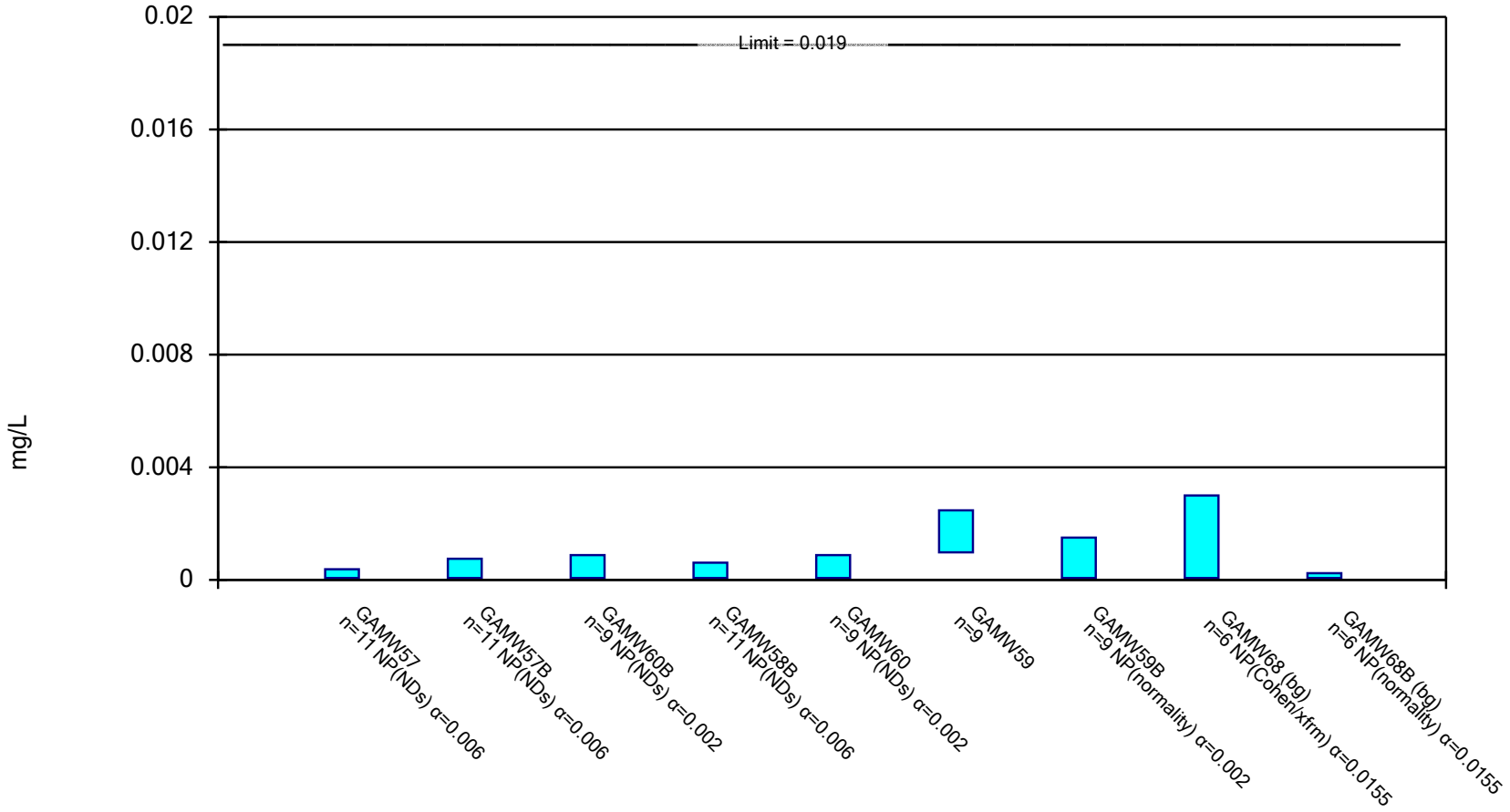


Constituent: Arsenic Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

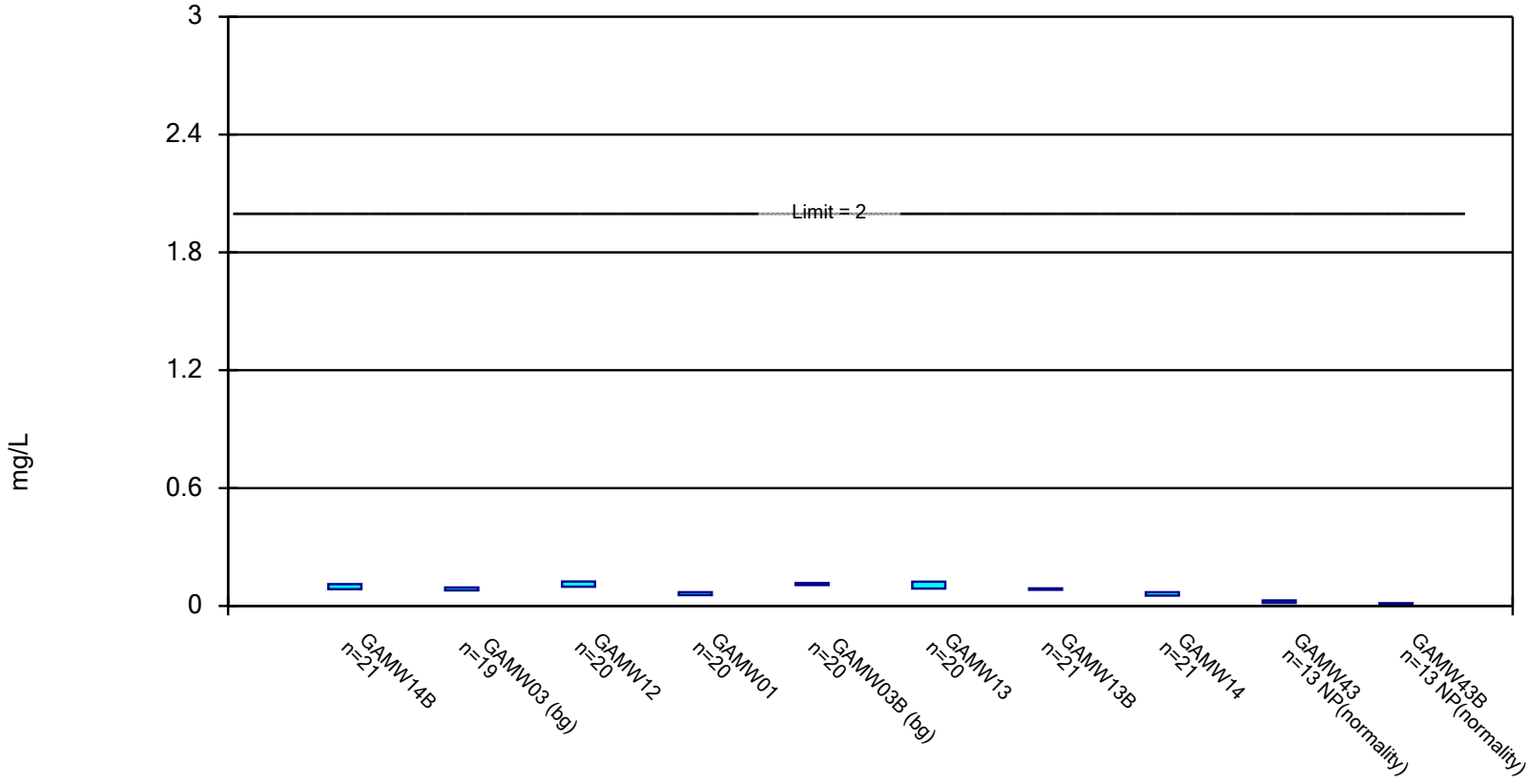


Constituent: Arsenic Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

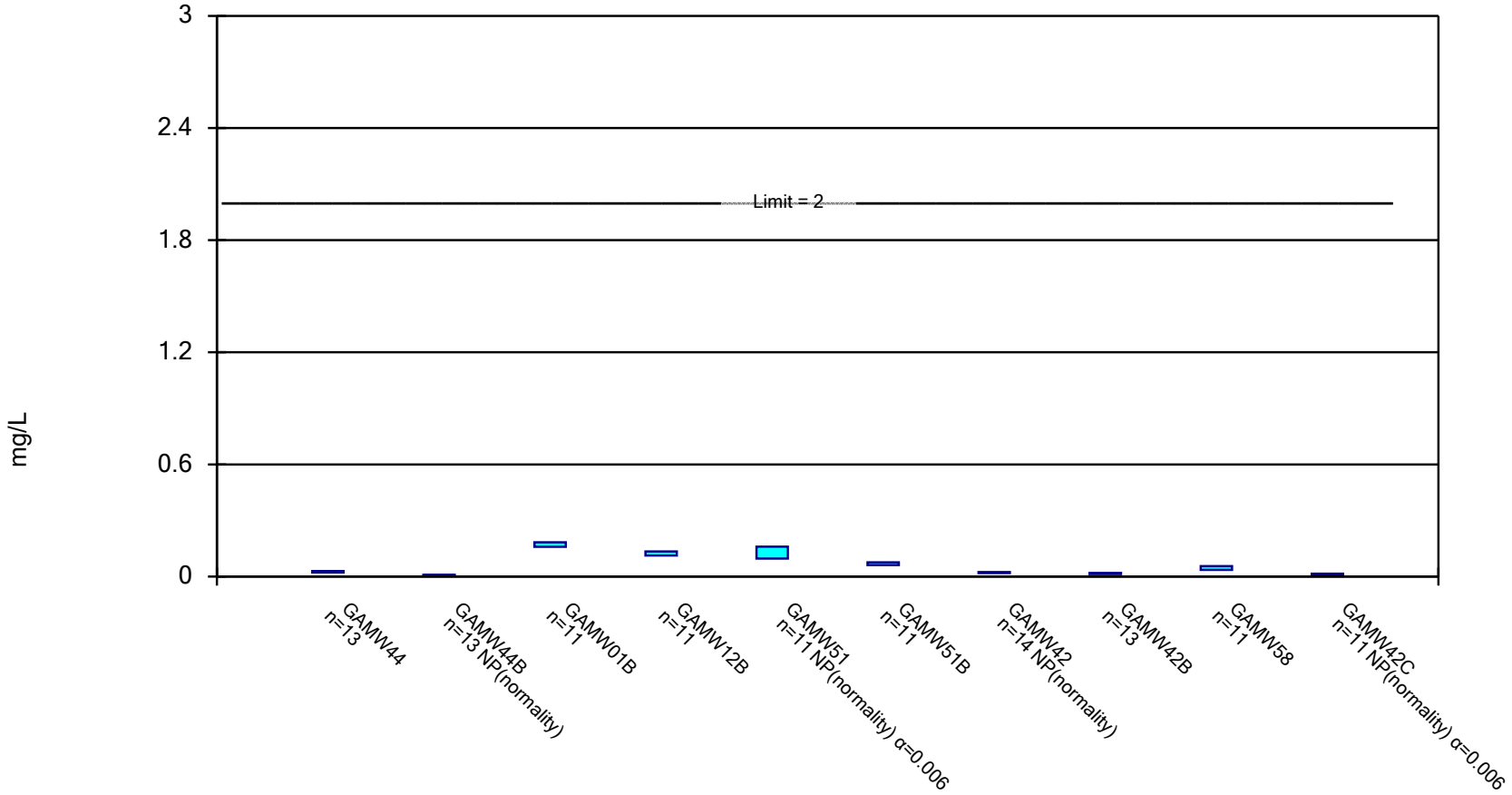


Constituent: Barium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

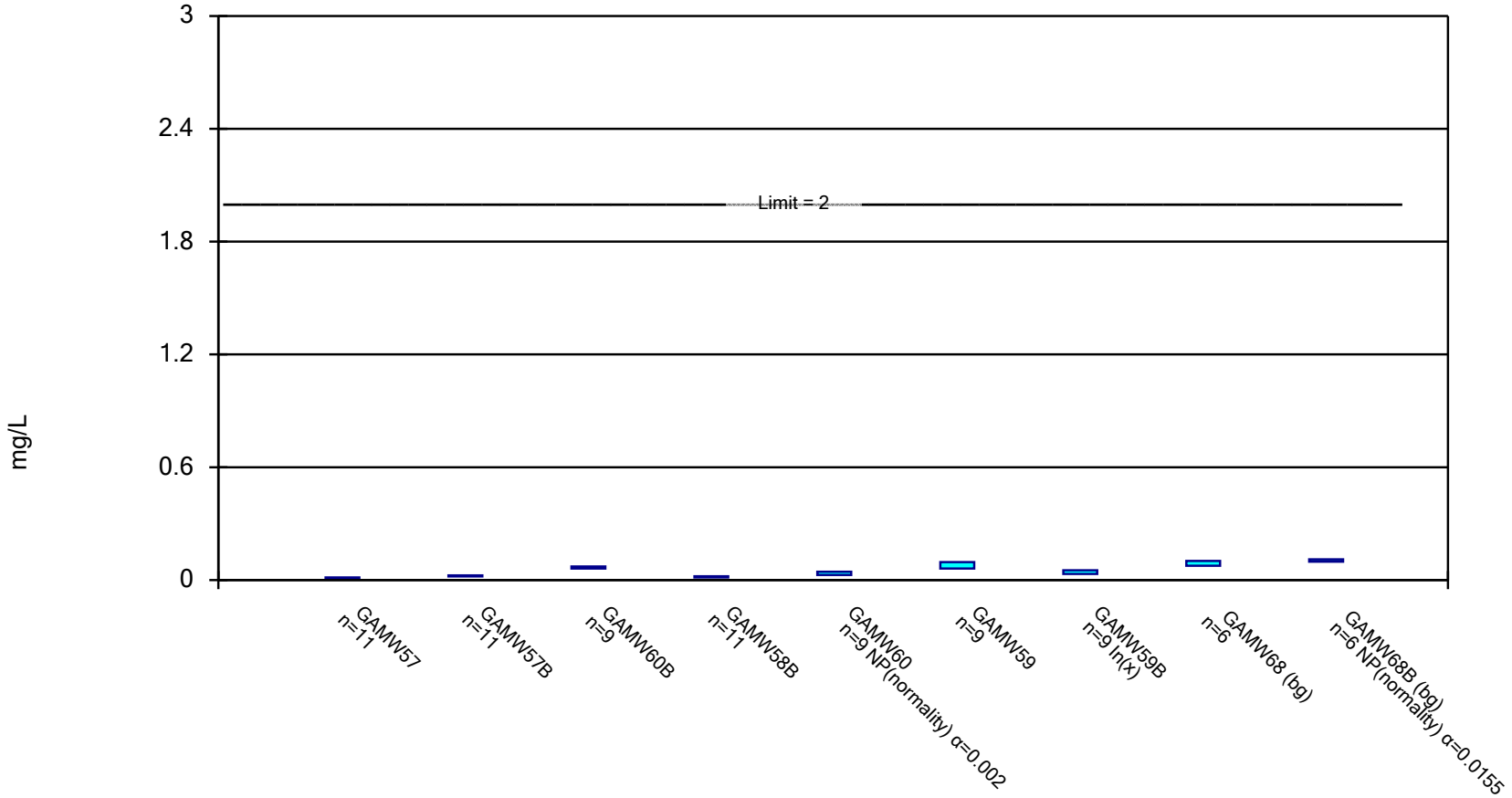


Constituent: Barium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

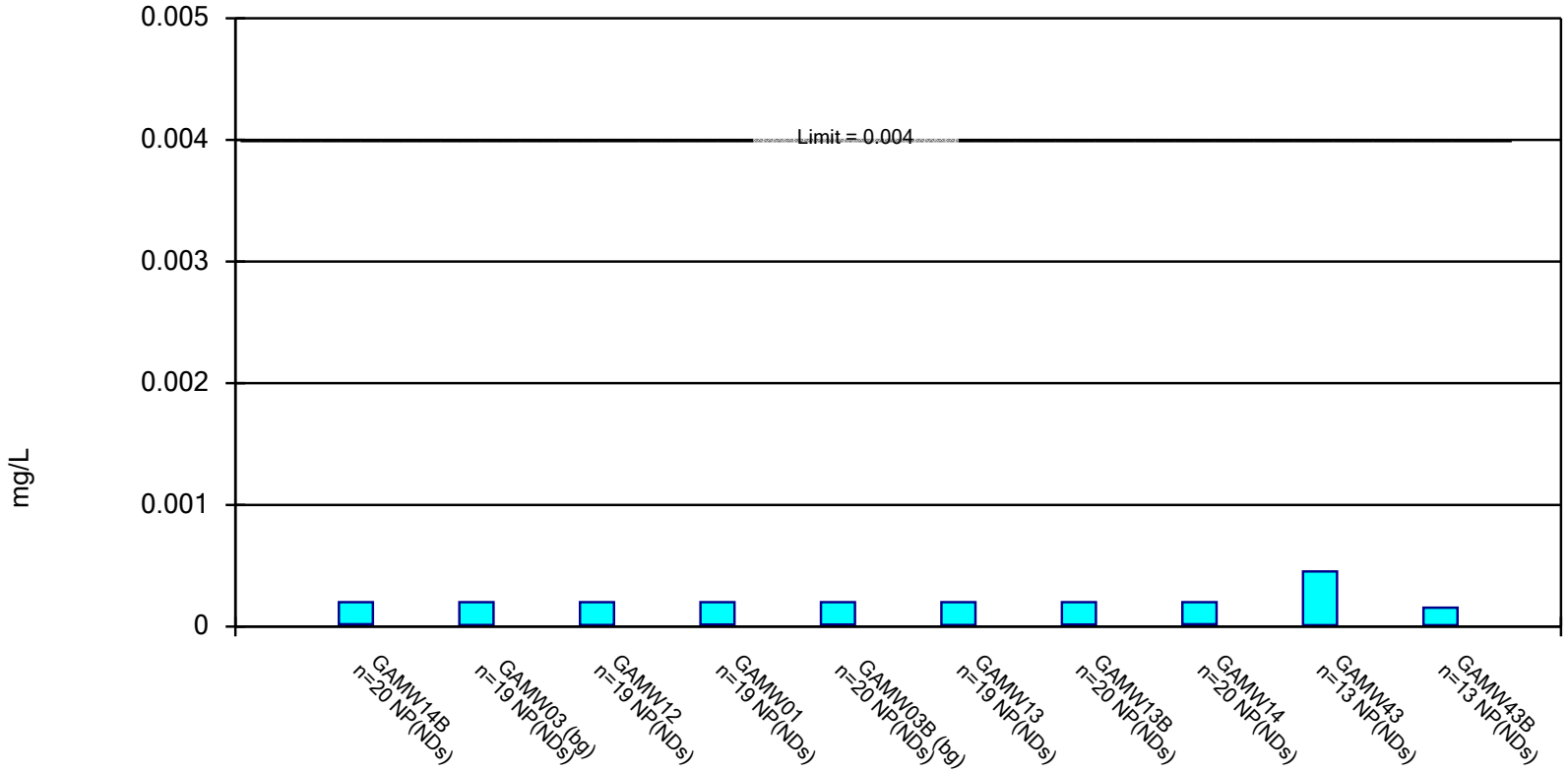


Constituent: Barium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

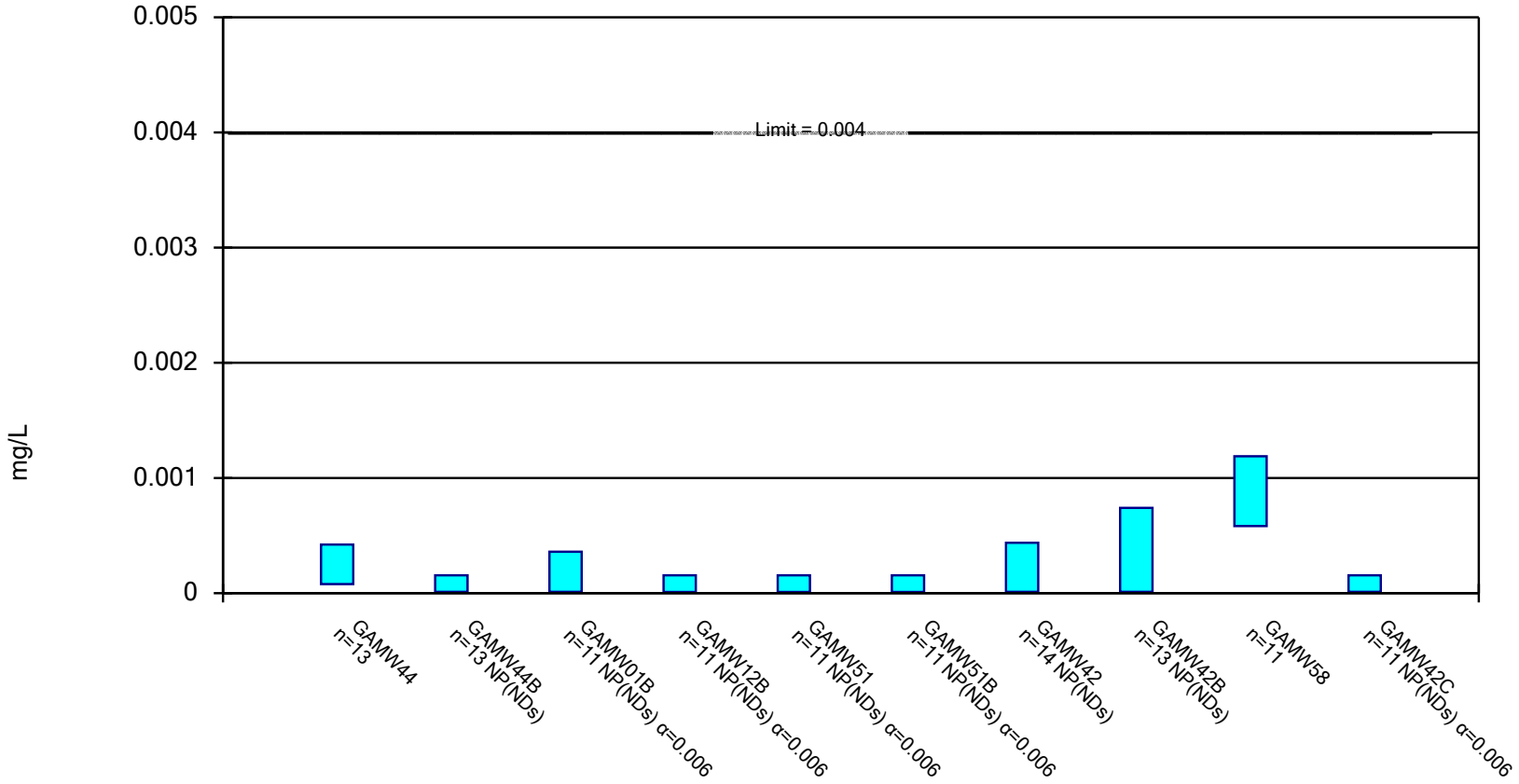


Constituent: Beryllium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

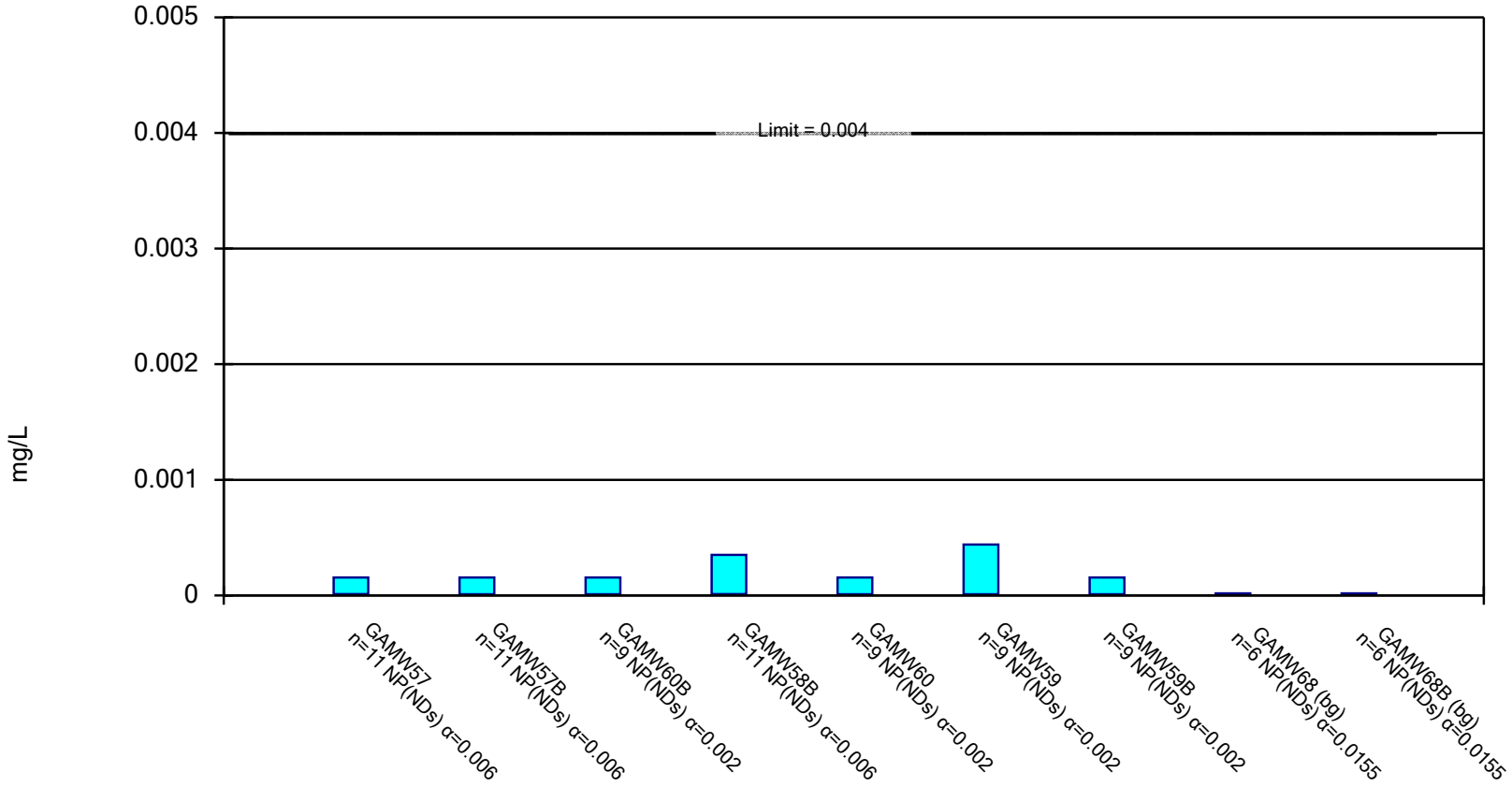


Constituent: Beryllium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

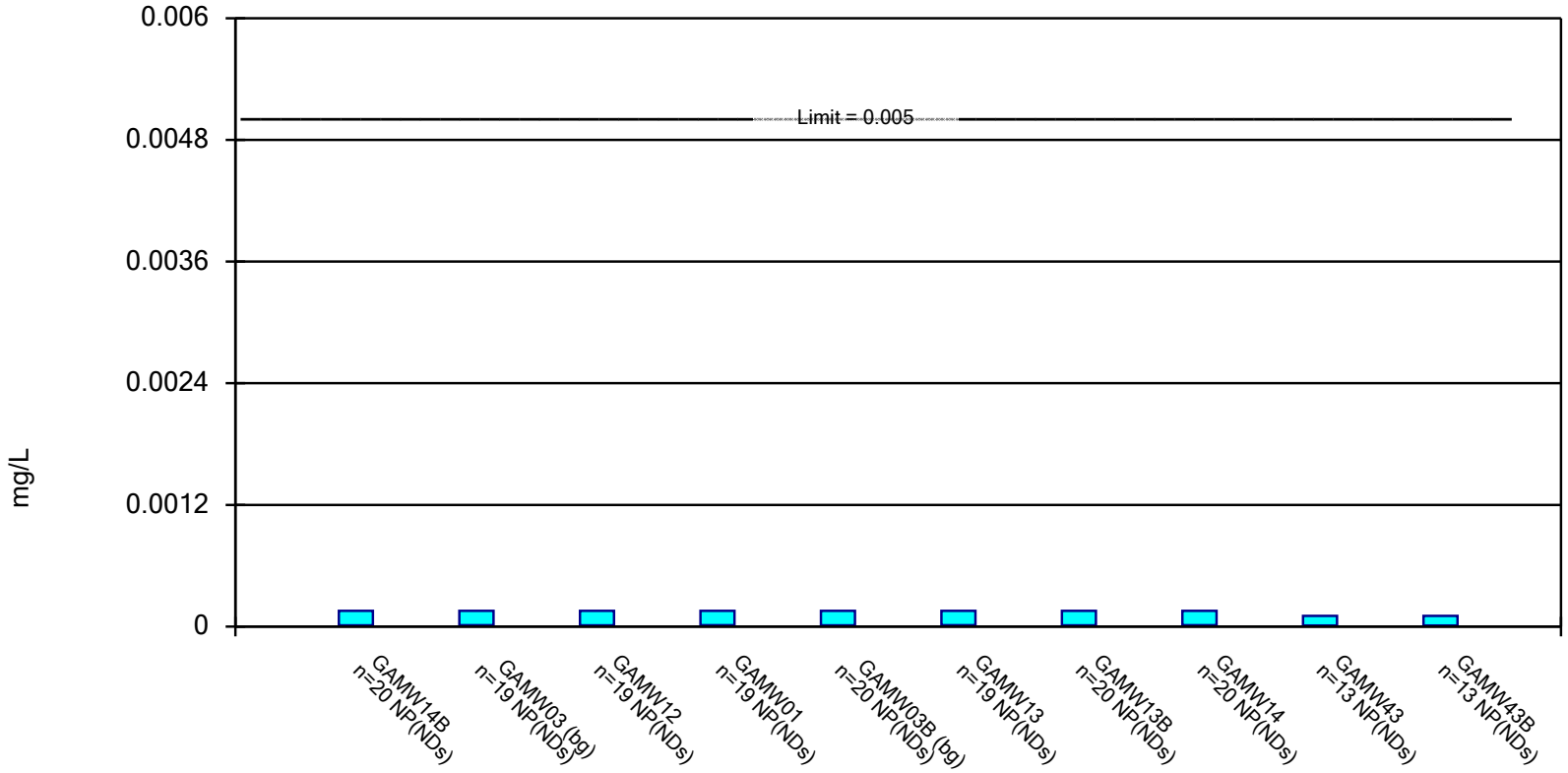


Constituent: Beryllium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

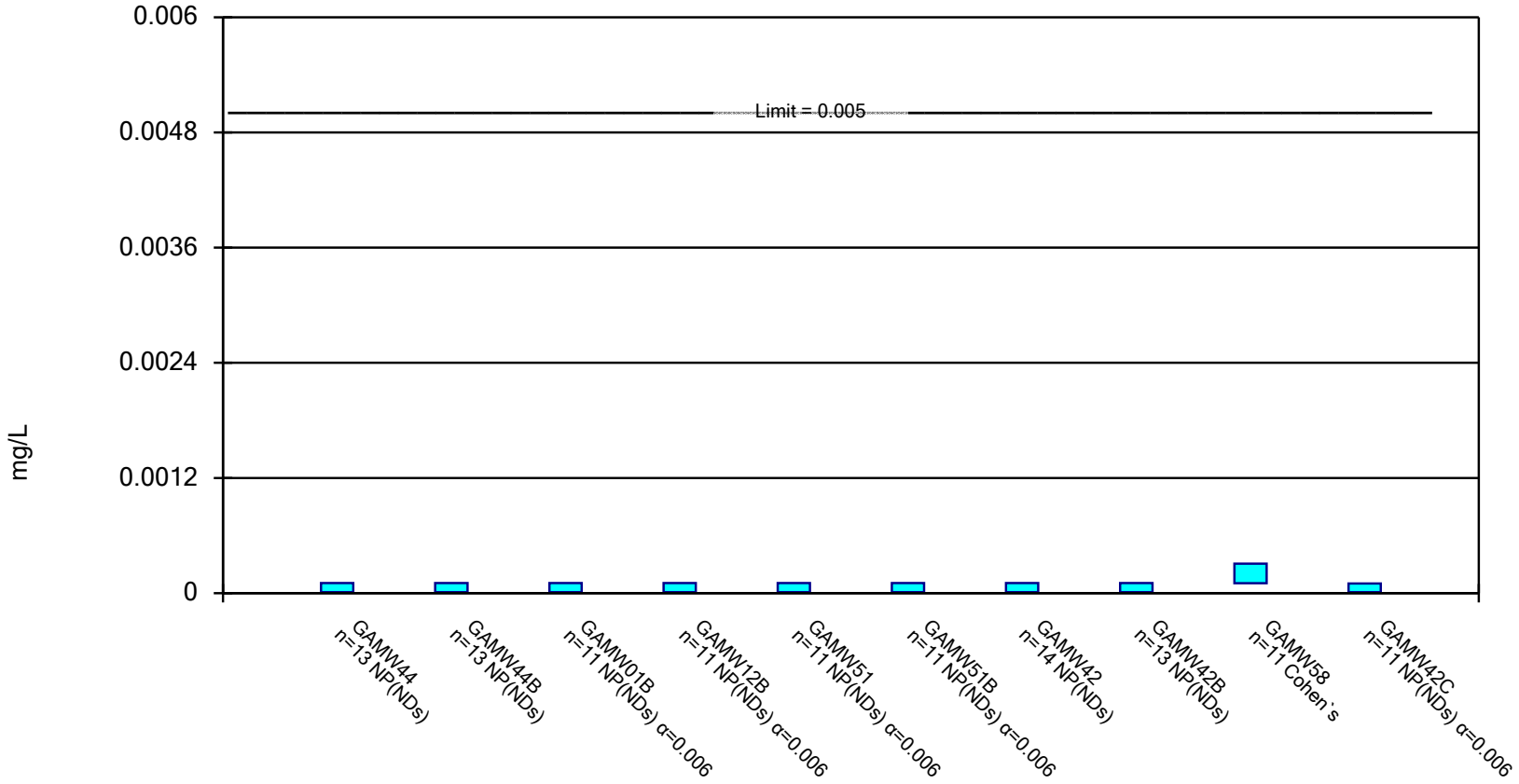


Constituent: Cadmium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

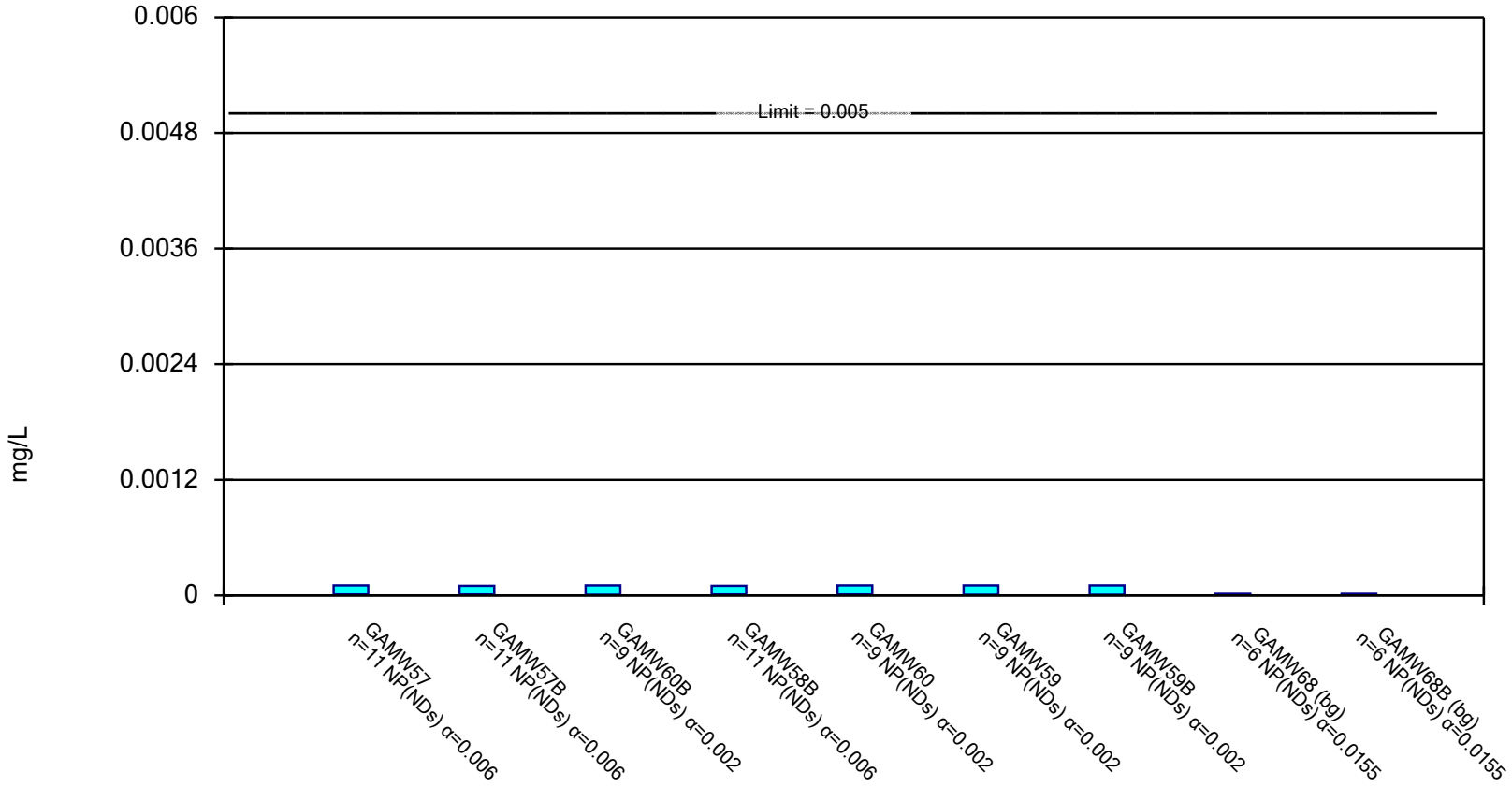


Constituent: Cadmium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

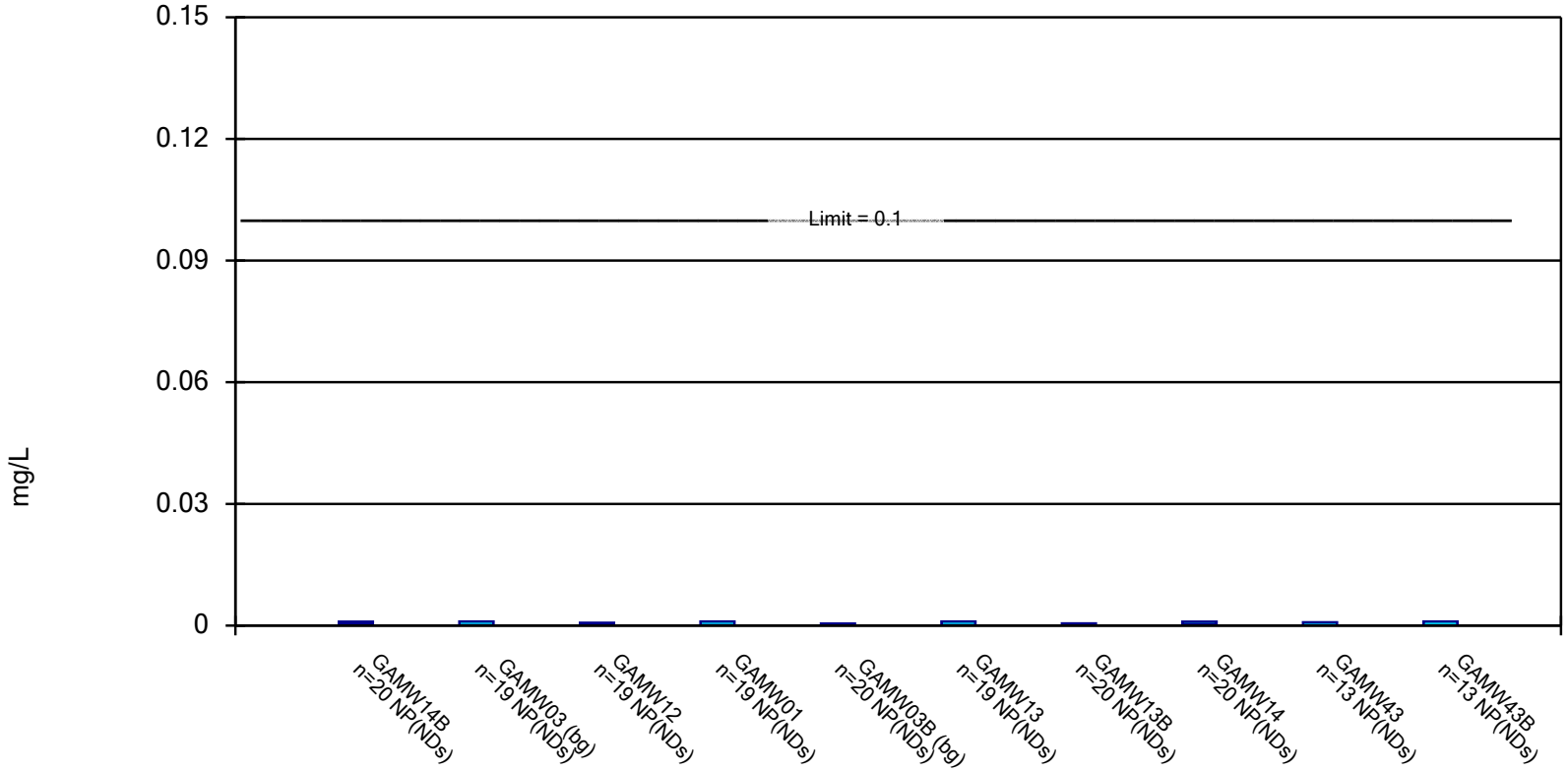


Constituent: Cadmium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

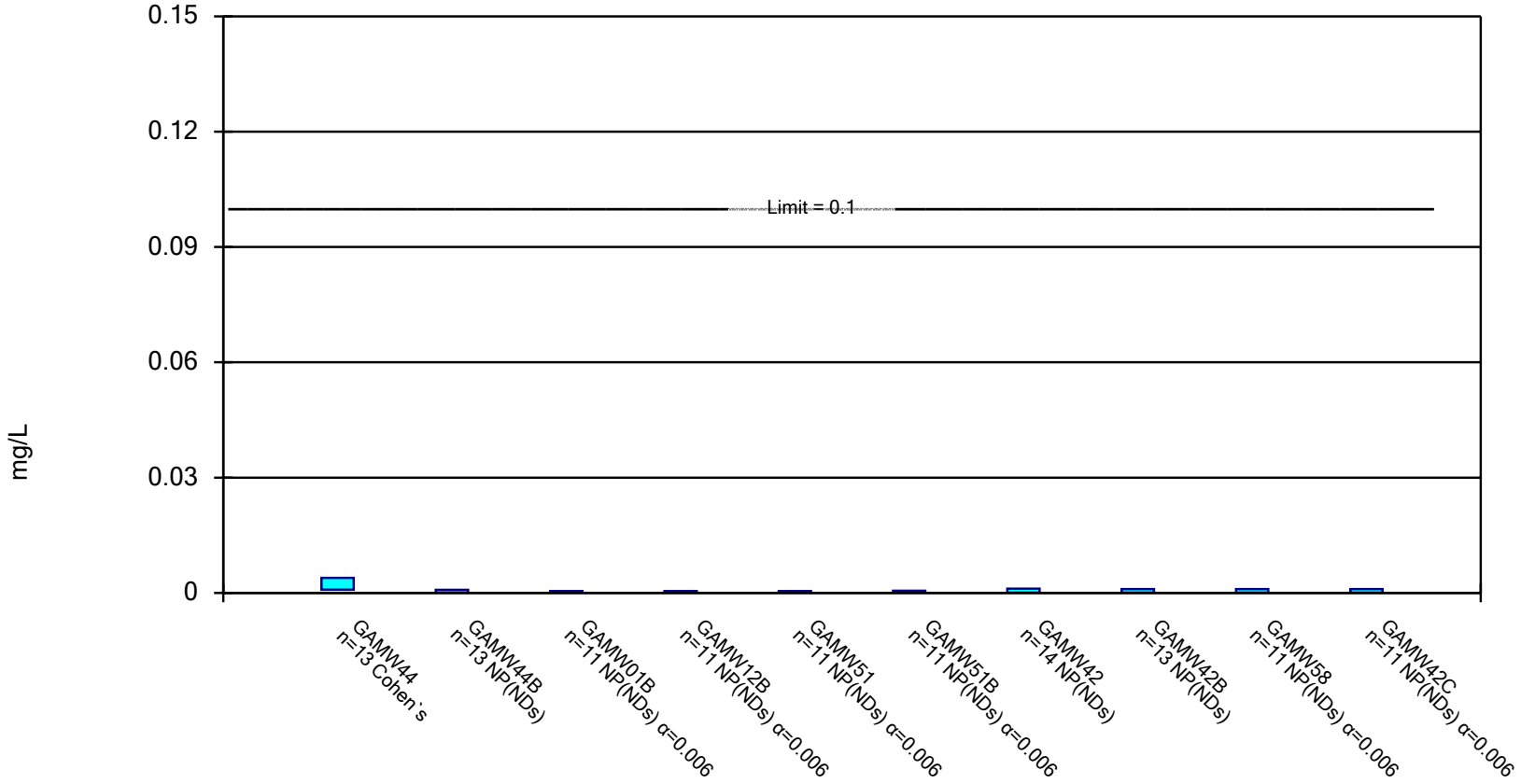


Constituent: Chromium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

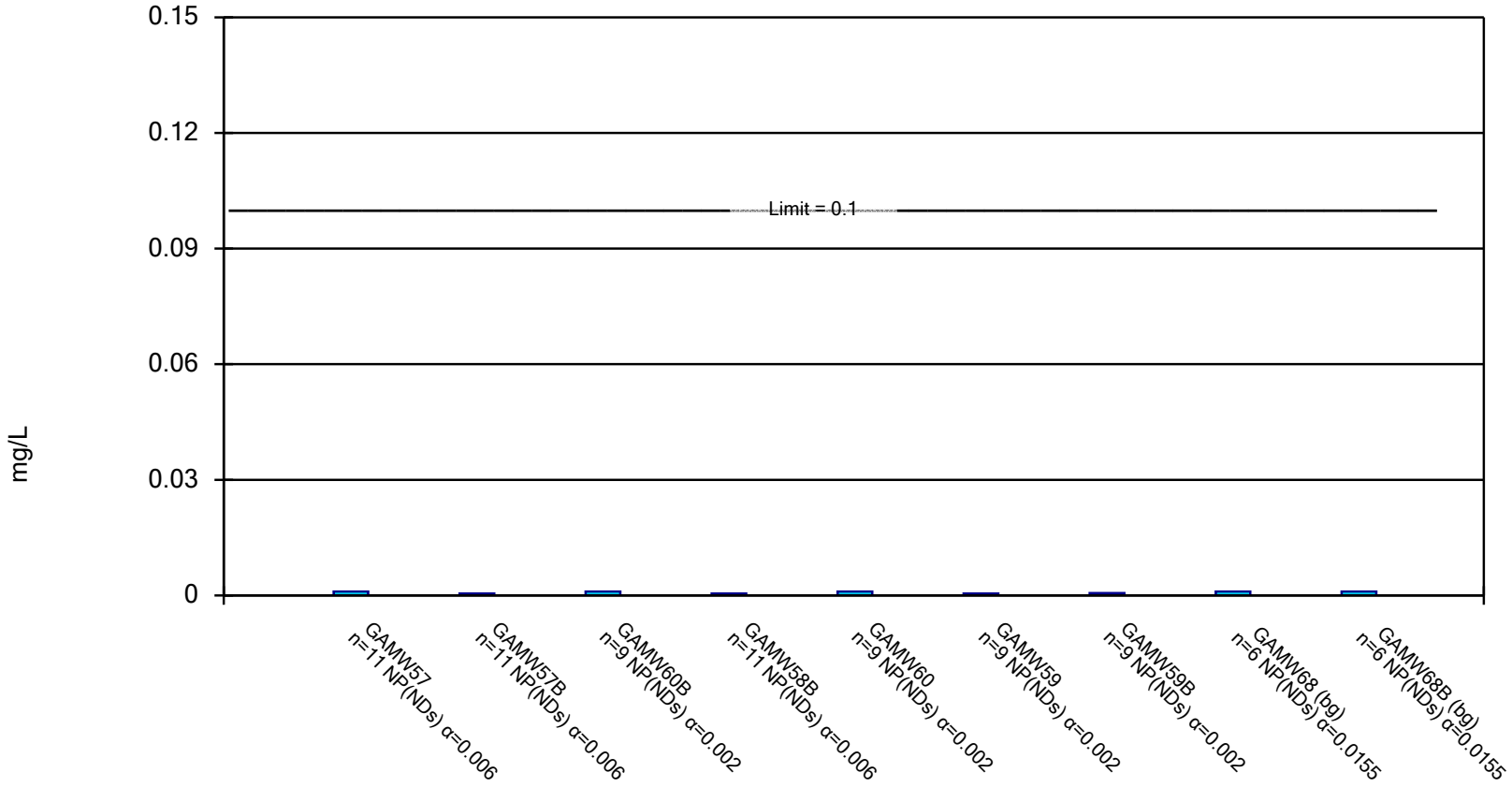


Constituent: Chromium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

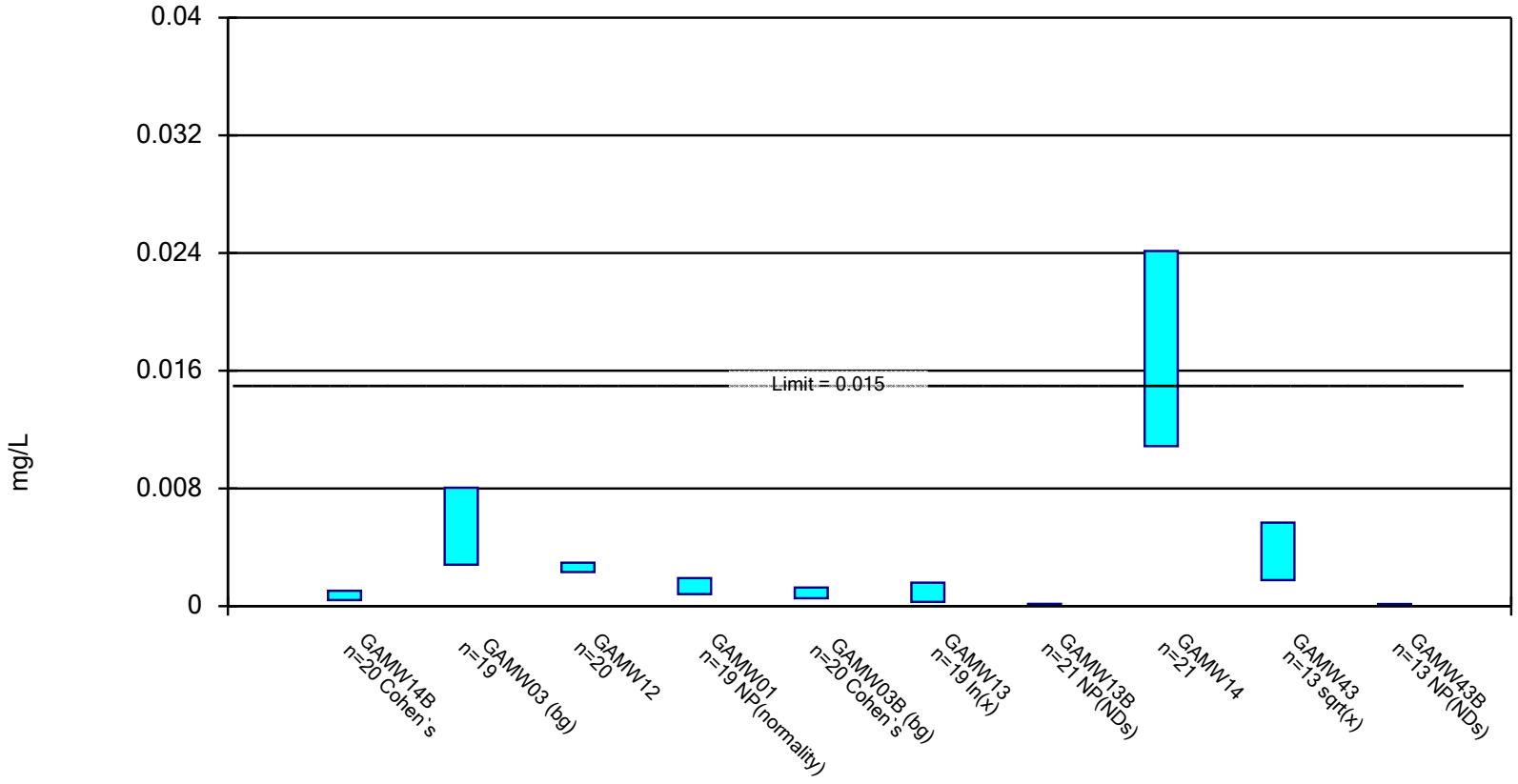


Constituent: Chromium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

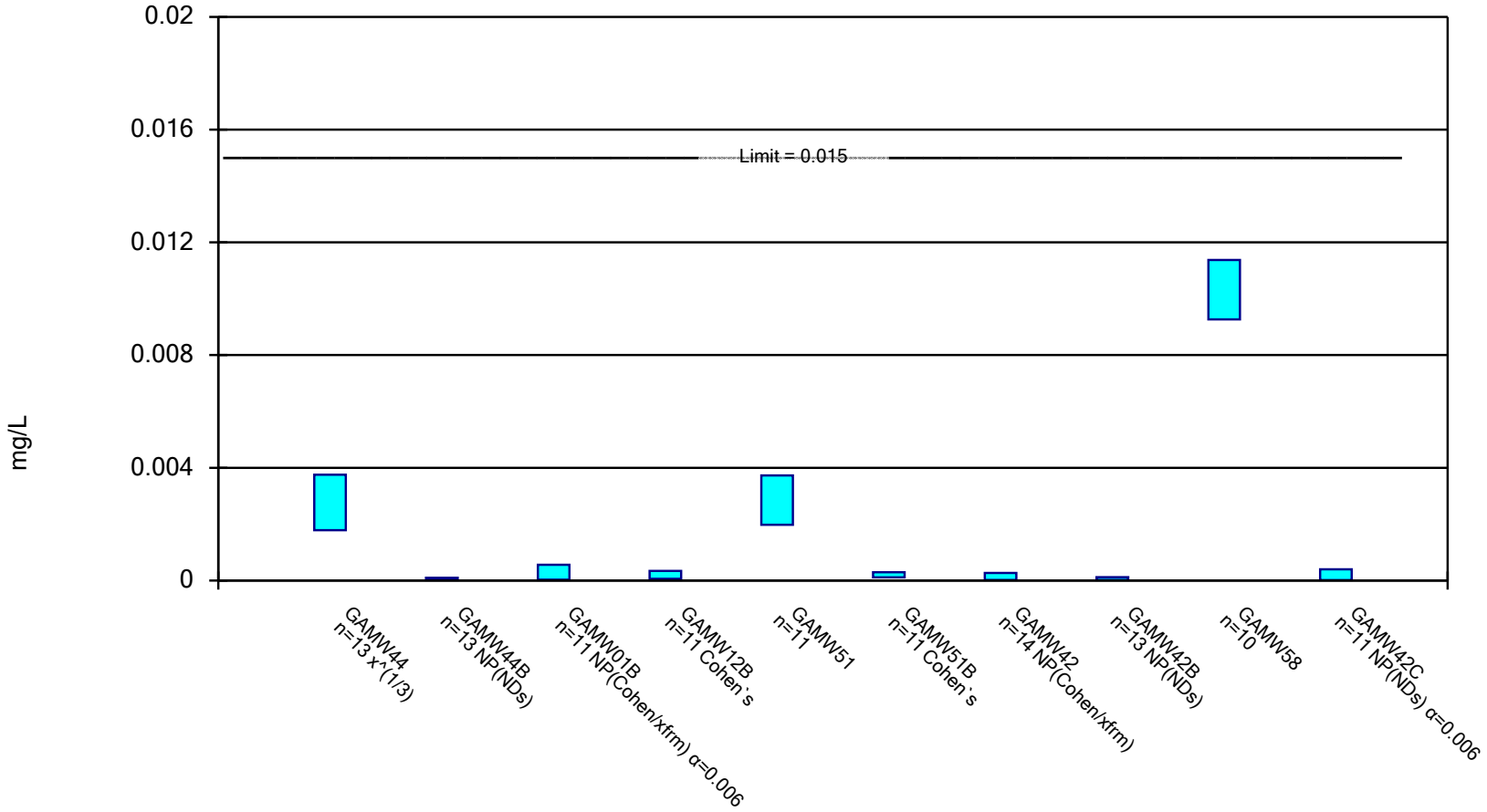


Constituent: Cobalt Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

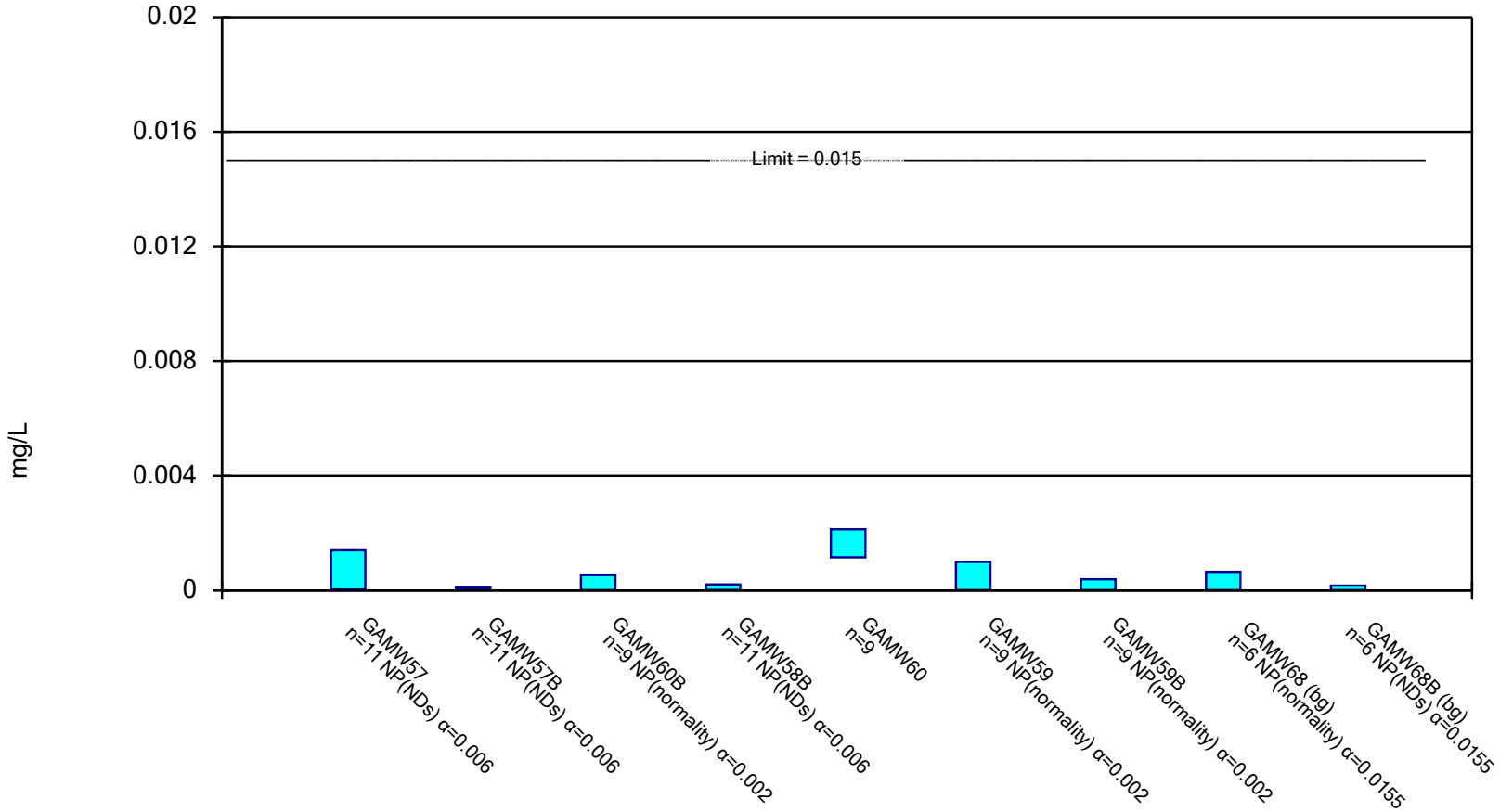


Constituent: Cobalt Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

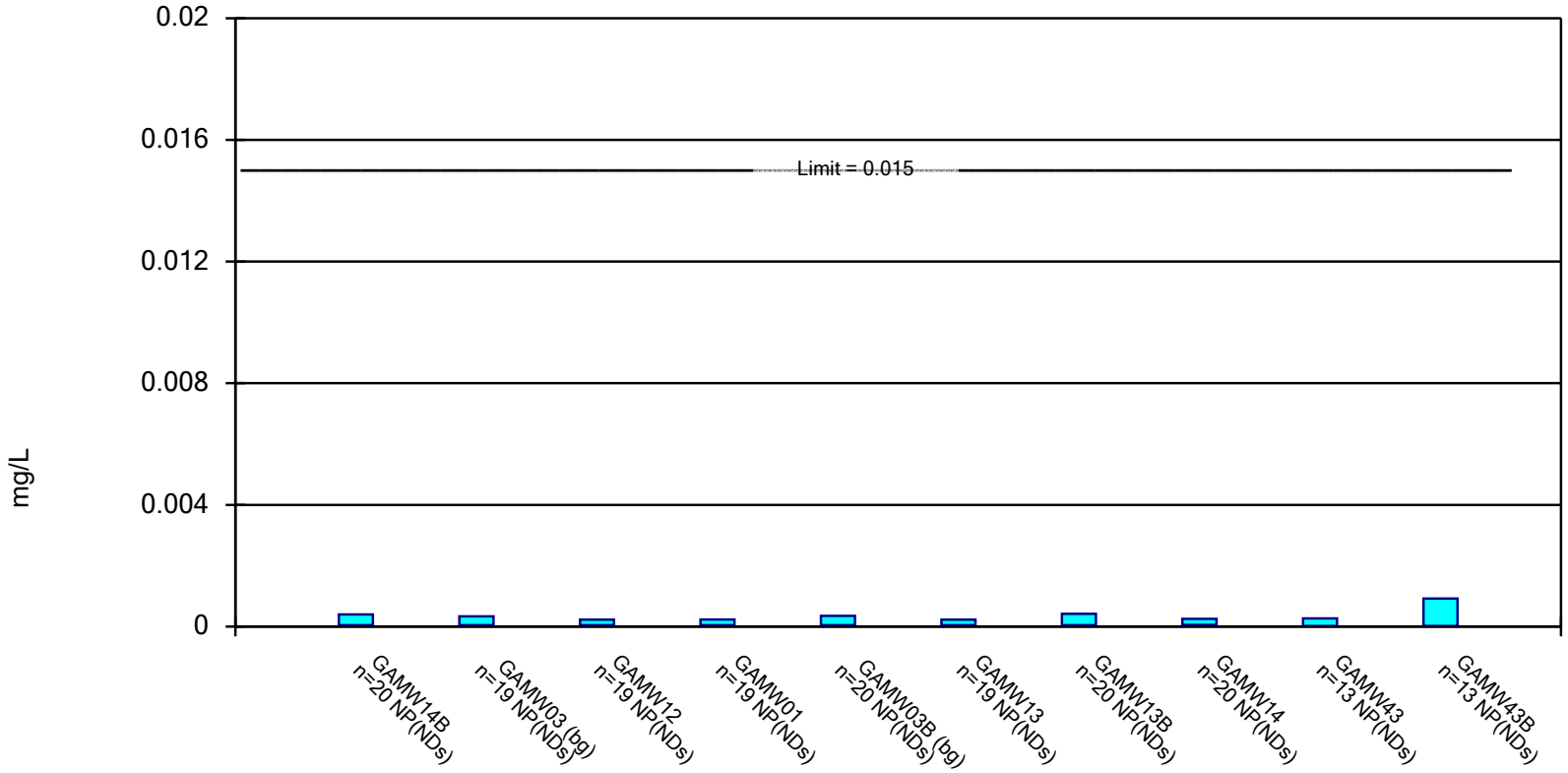


Constituent: Cobalt Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

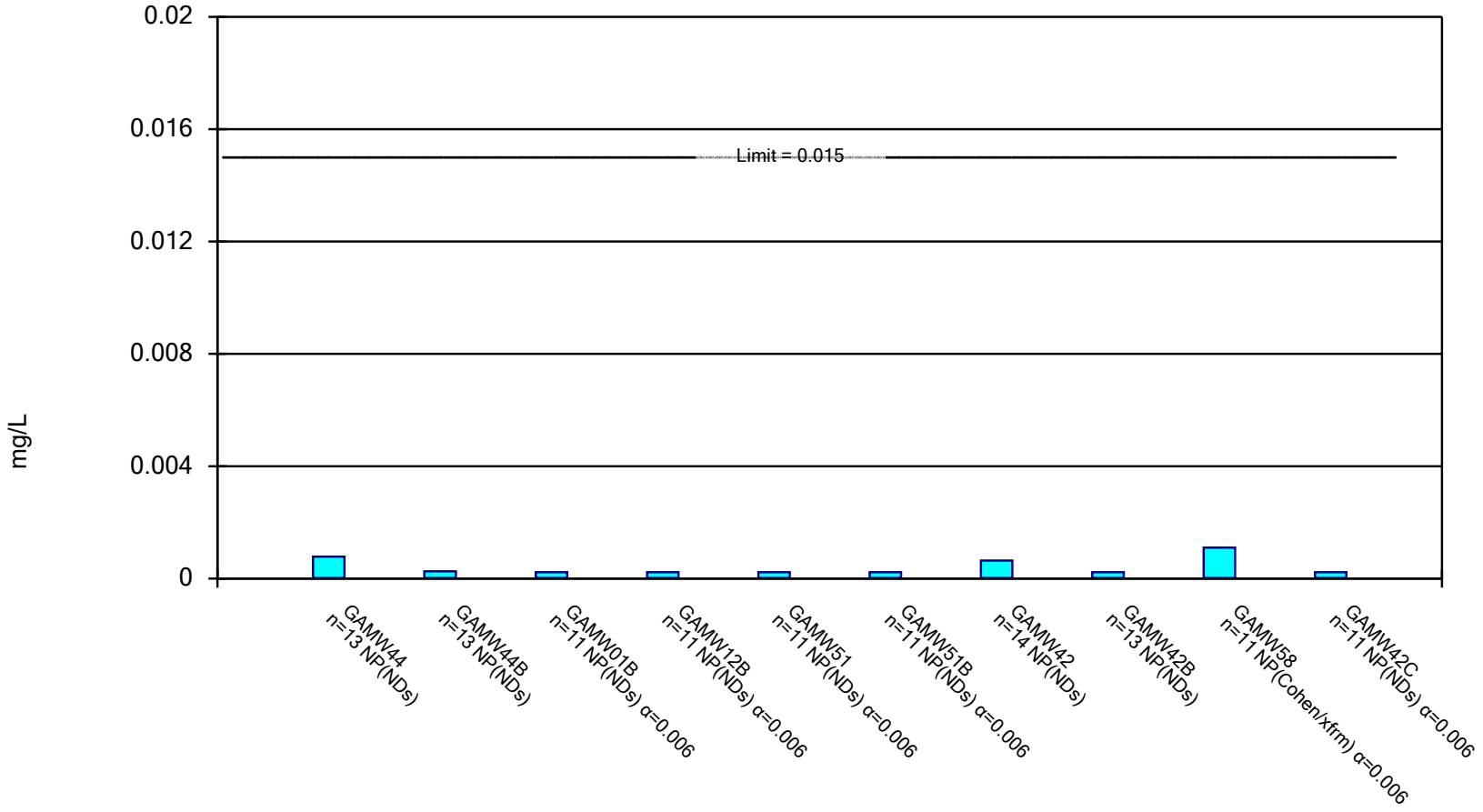


Constituent: Lead Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

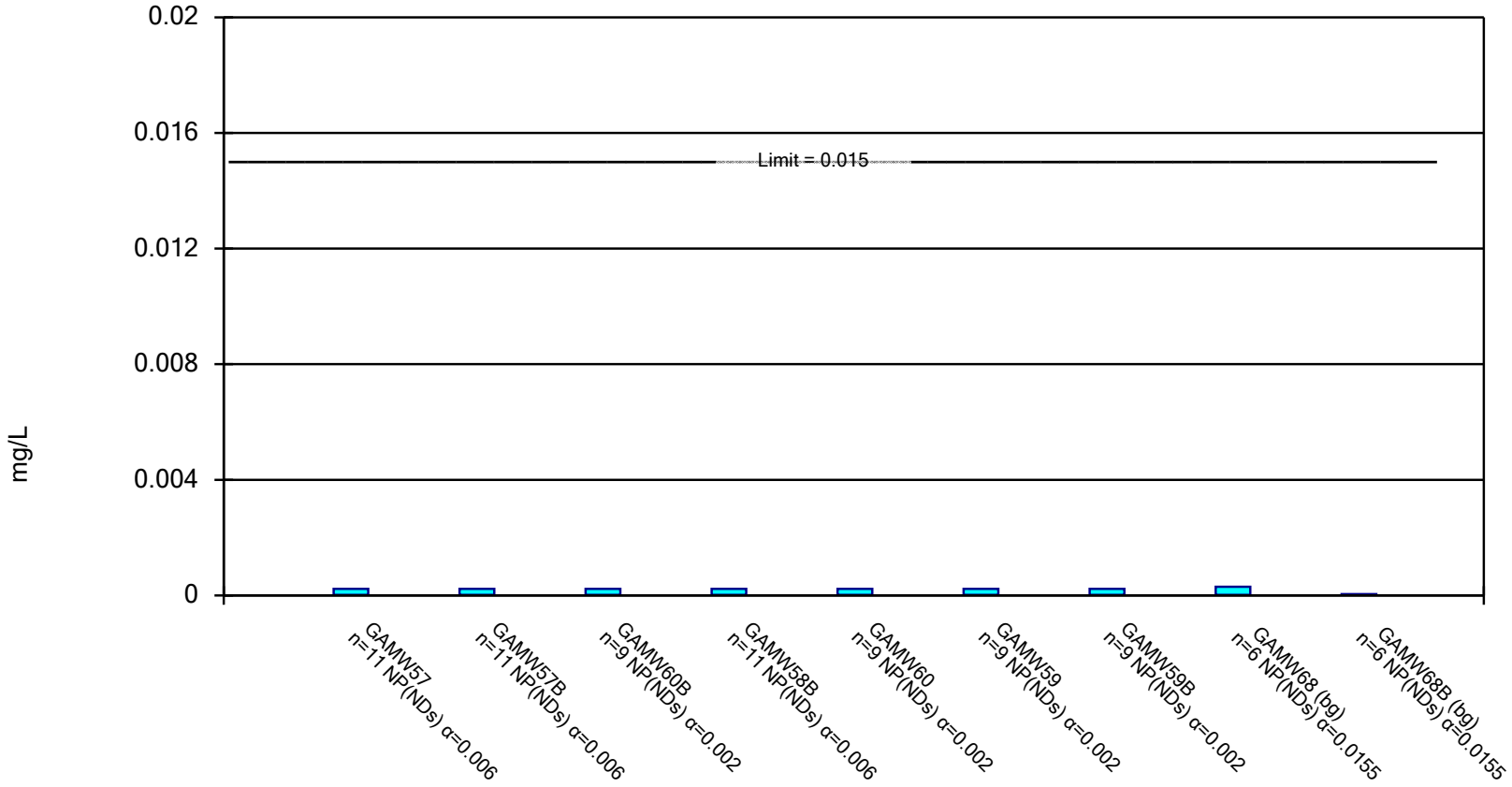


Constituent: Lead Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

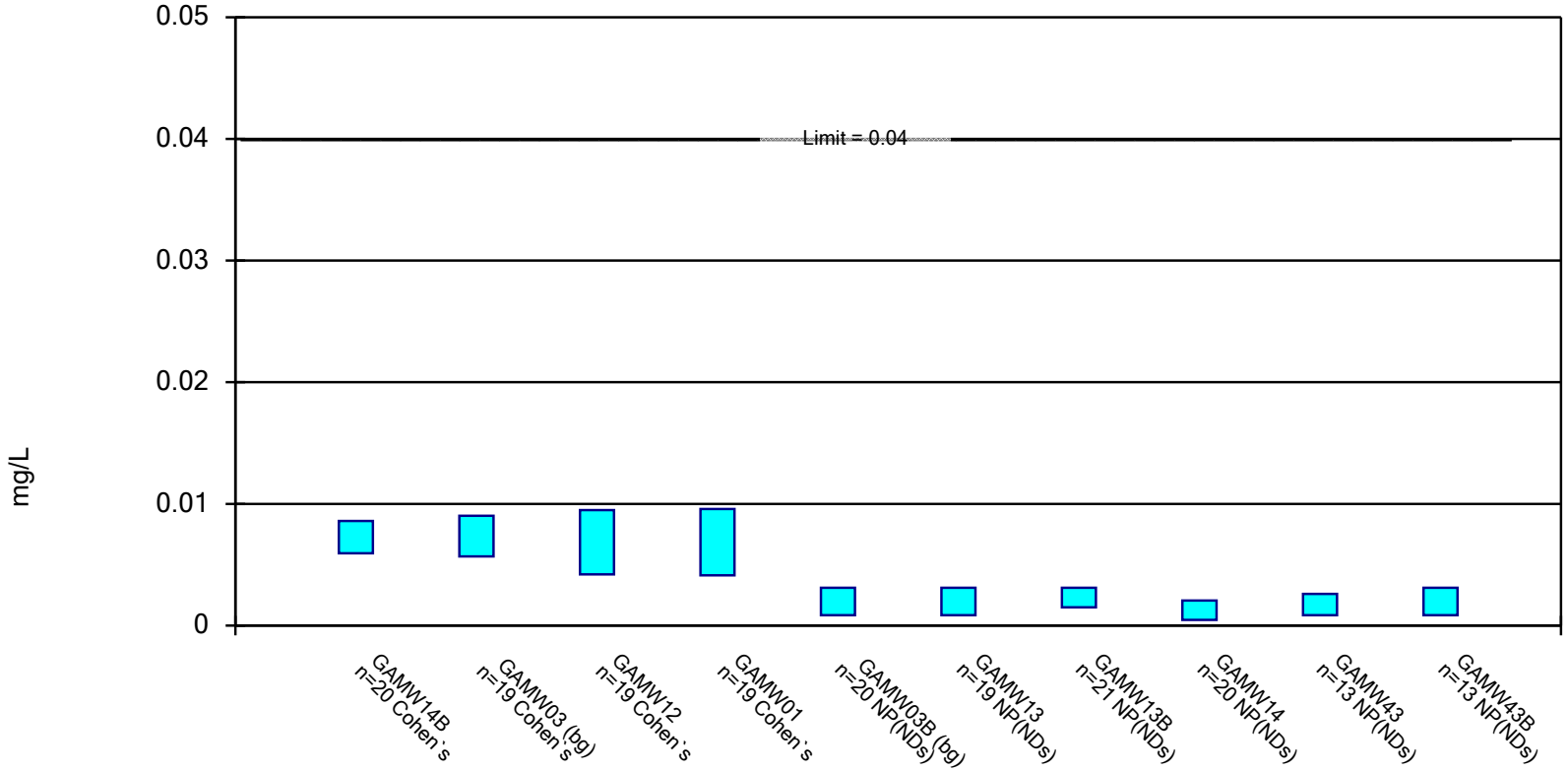


Constituent: Lead Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

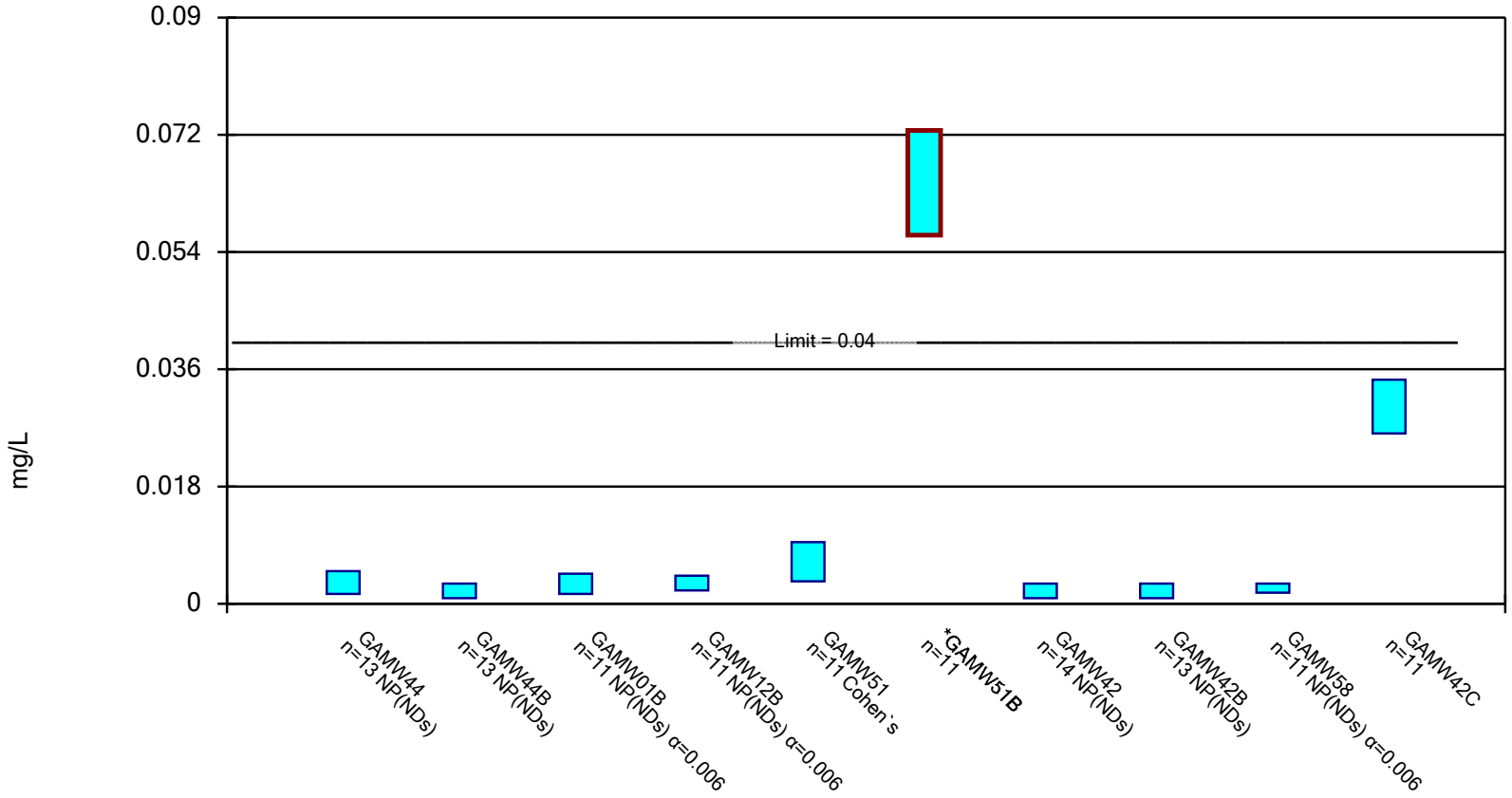


Constituent: Lithium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

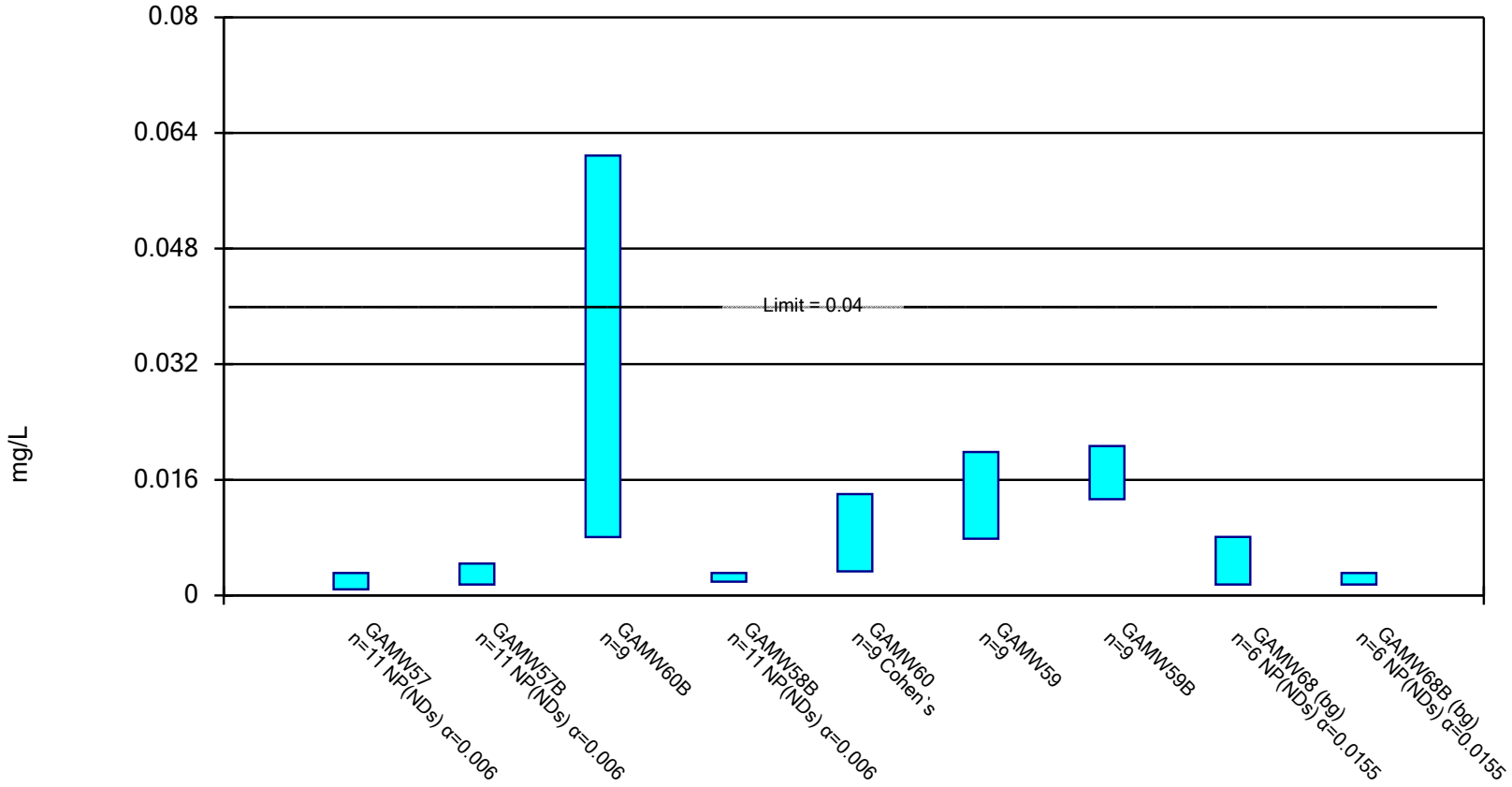


Constituent: Lithium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

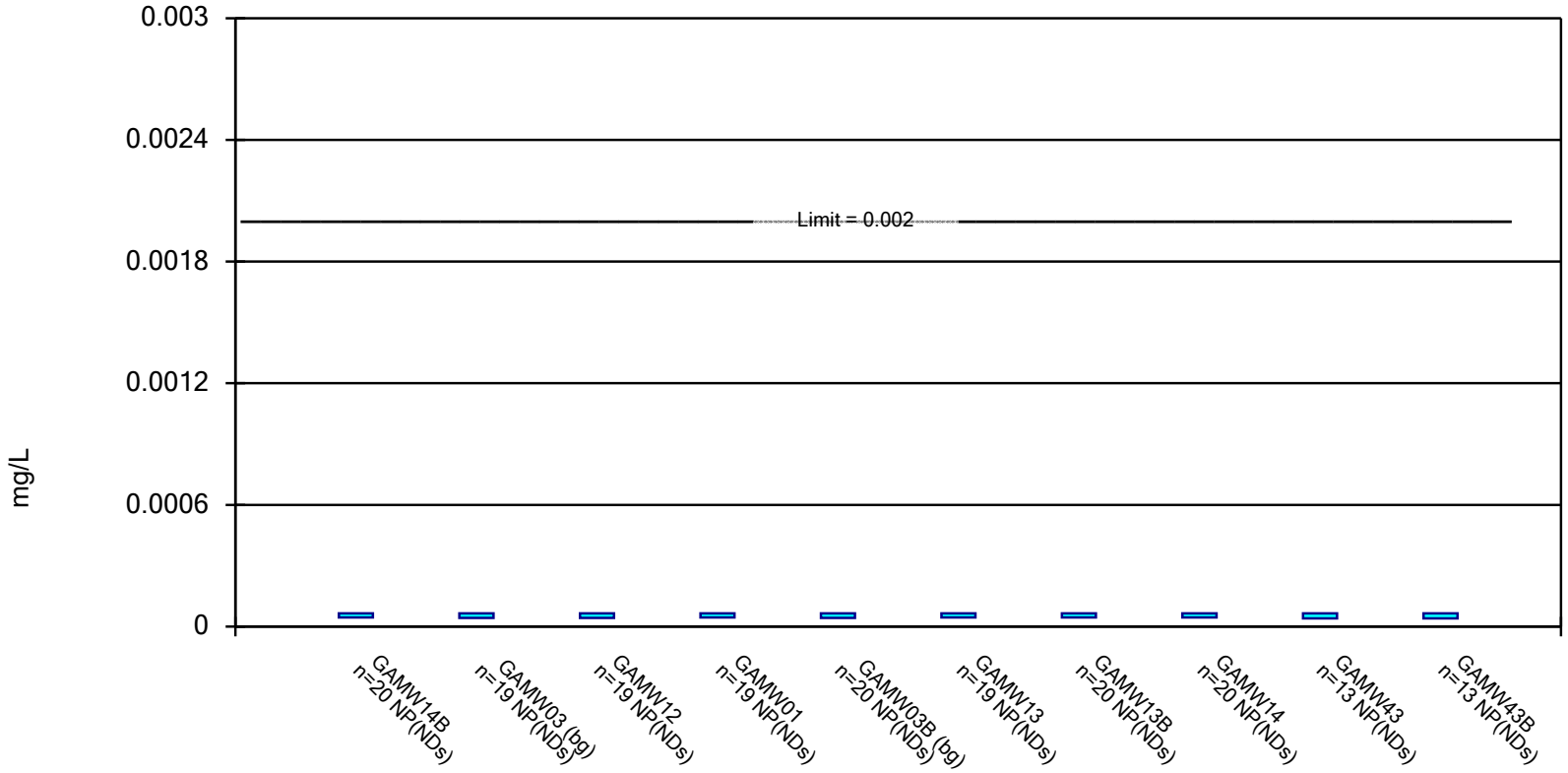


Constituent: Lithium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

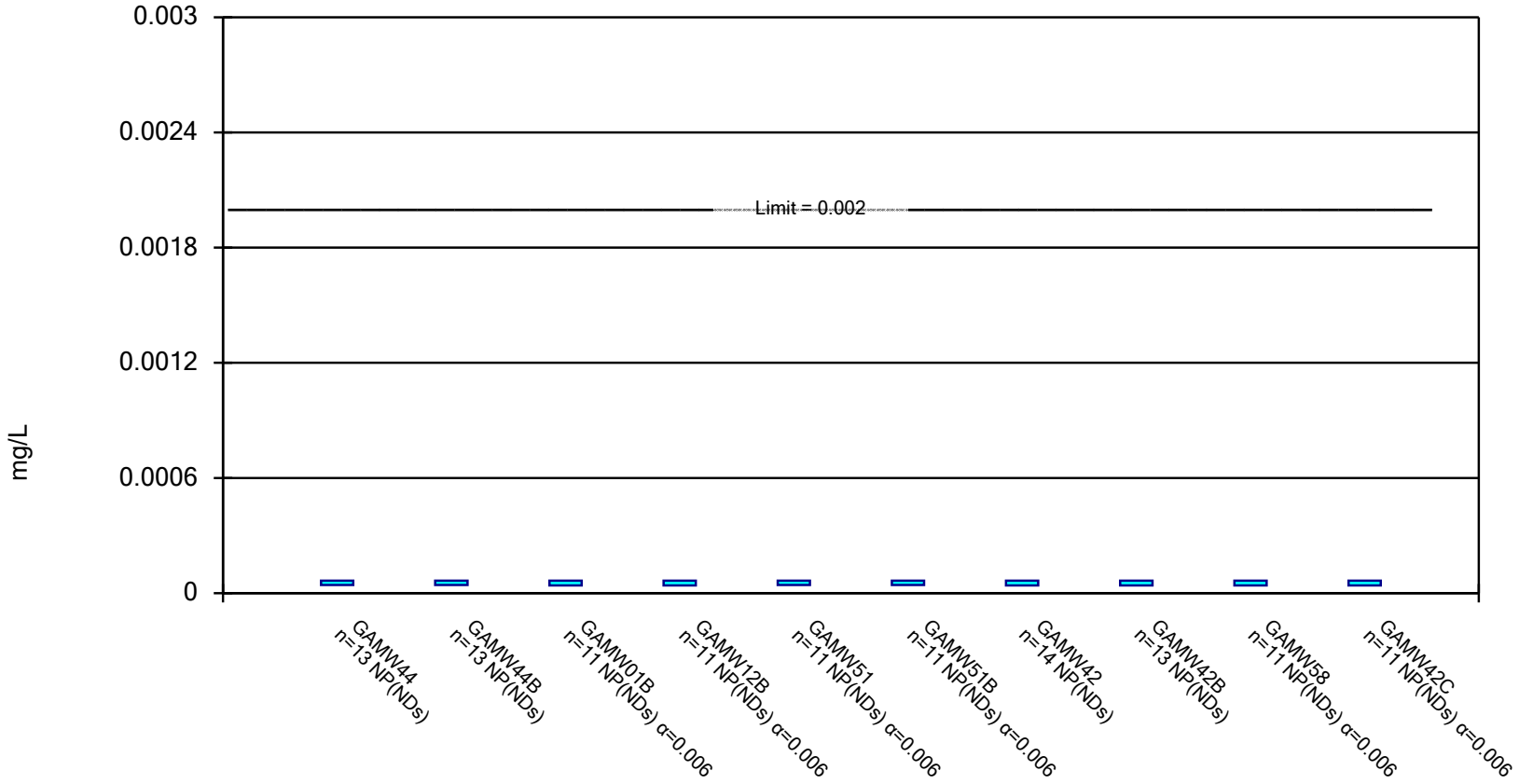


Constituent: Mercury Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

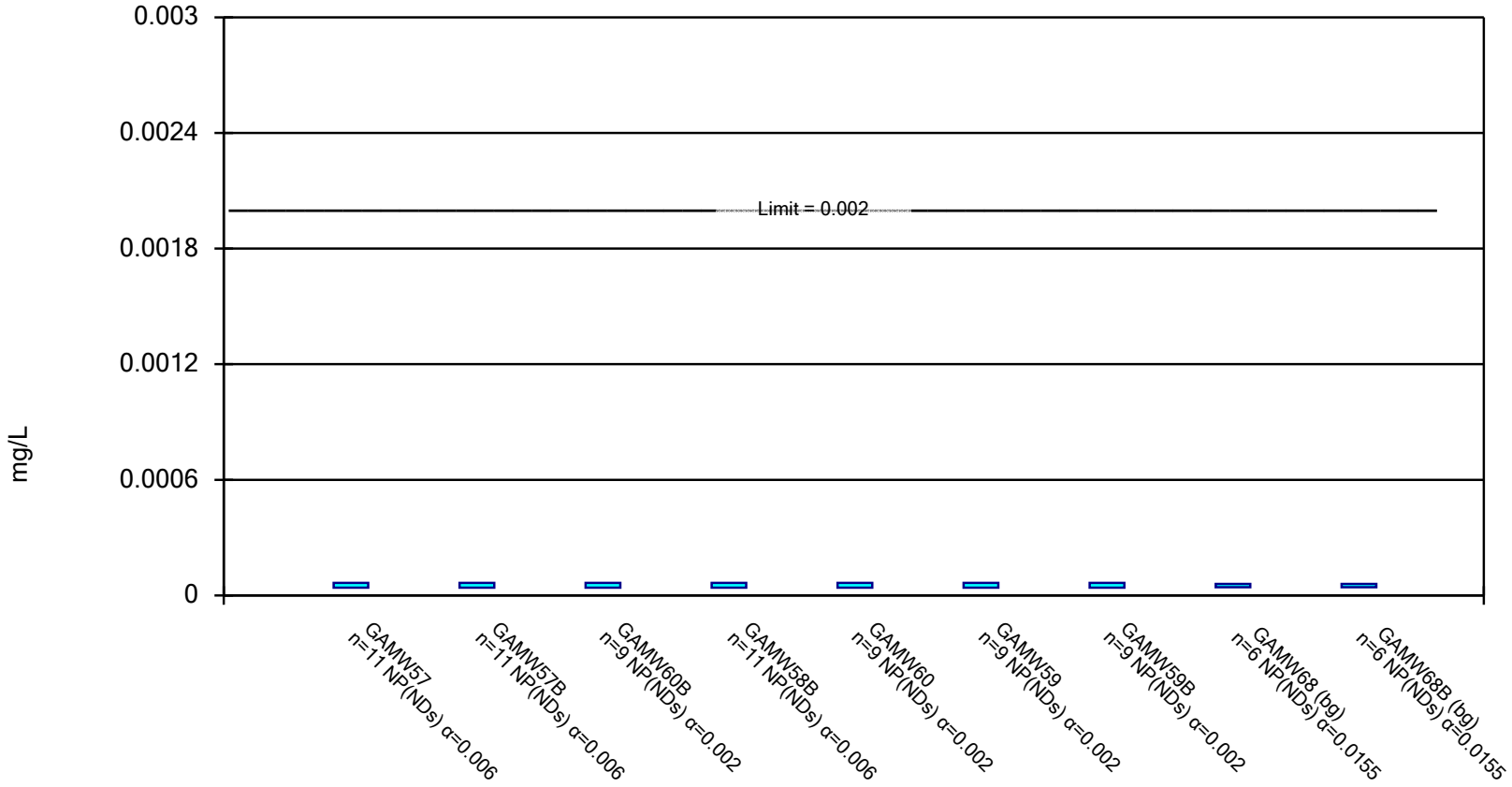


Constituent: Mercury Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

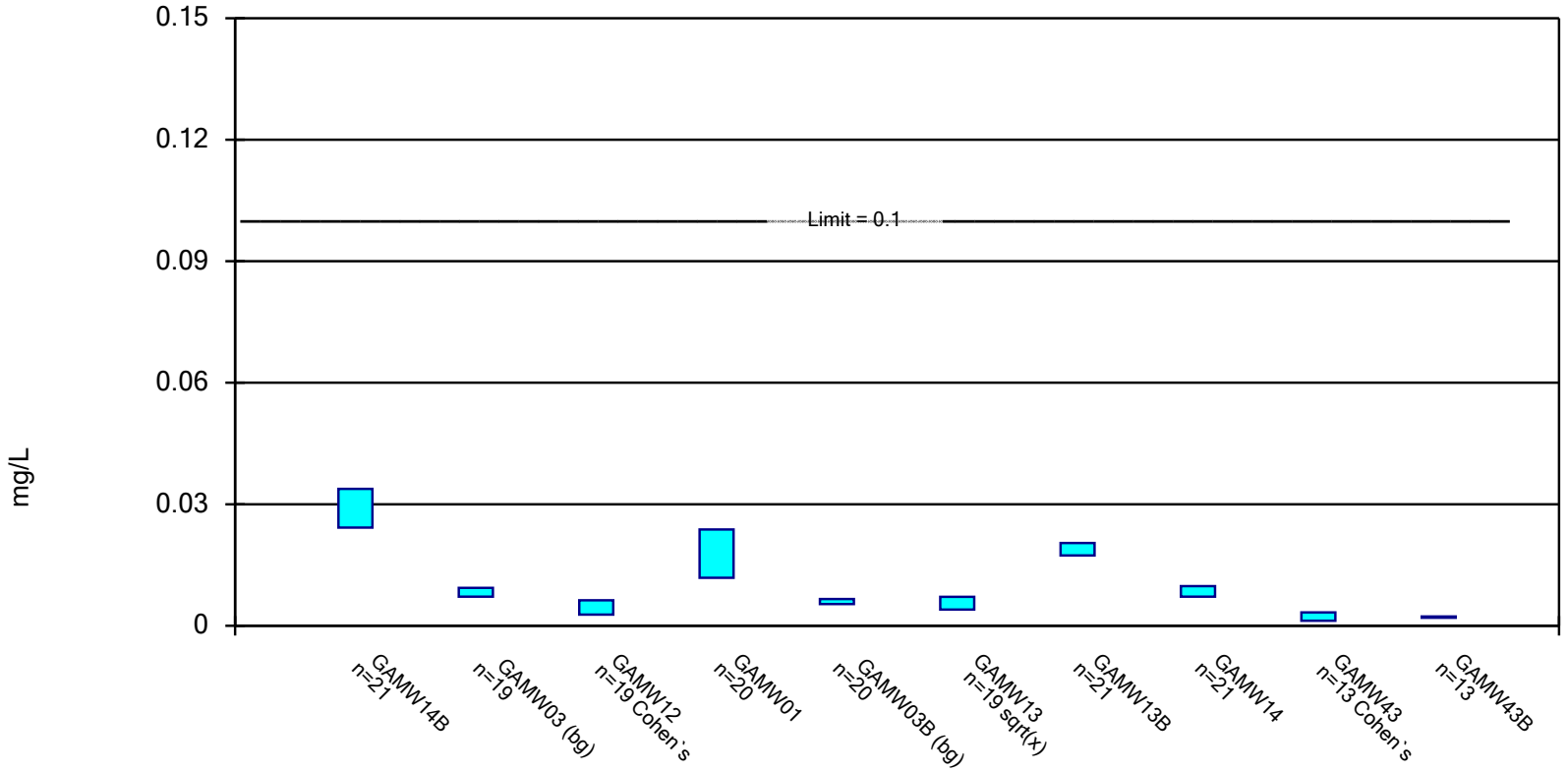


Constituent: Mercury Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

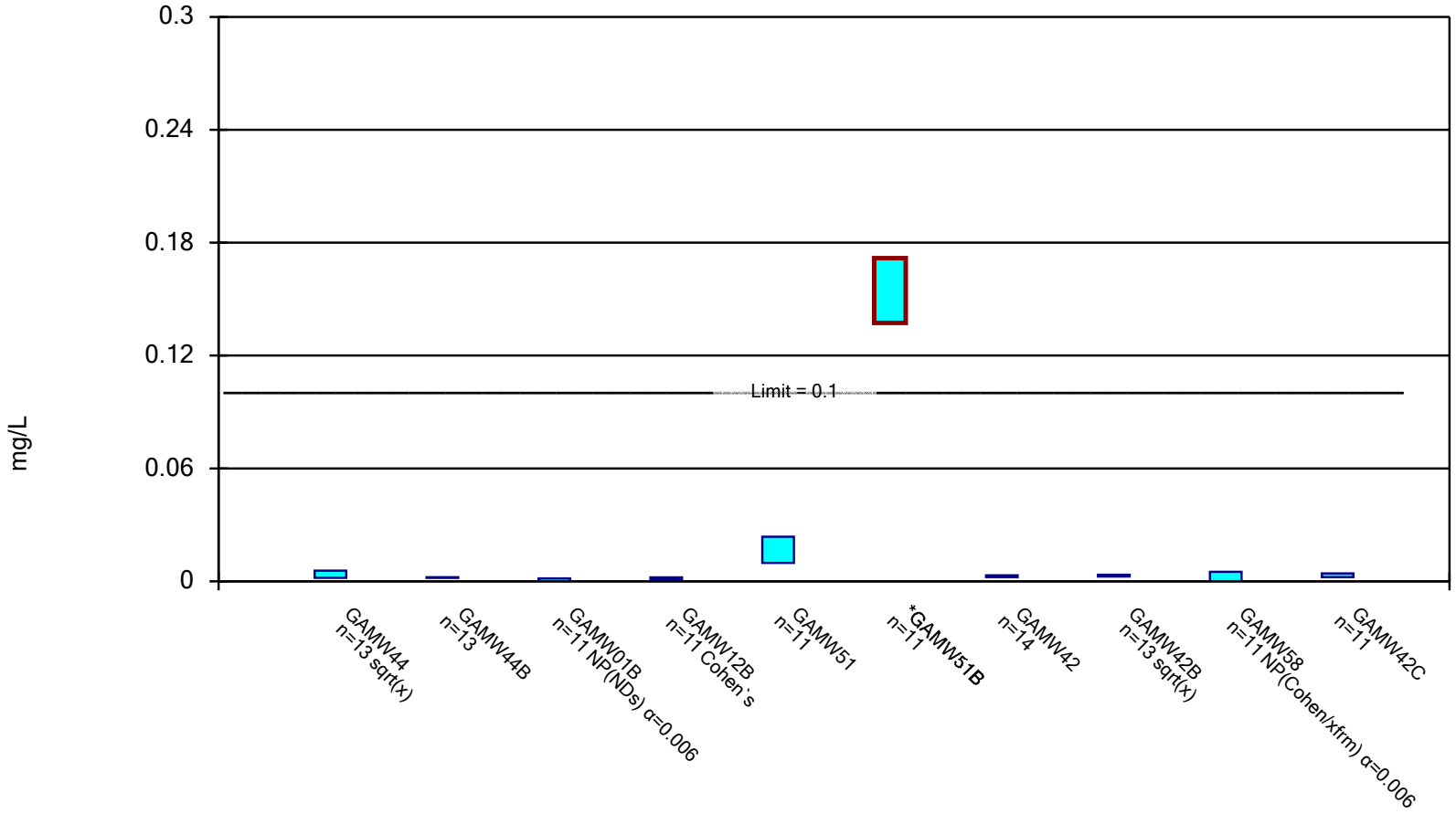


Constituent: Molybdenum Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

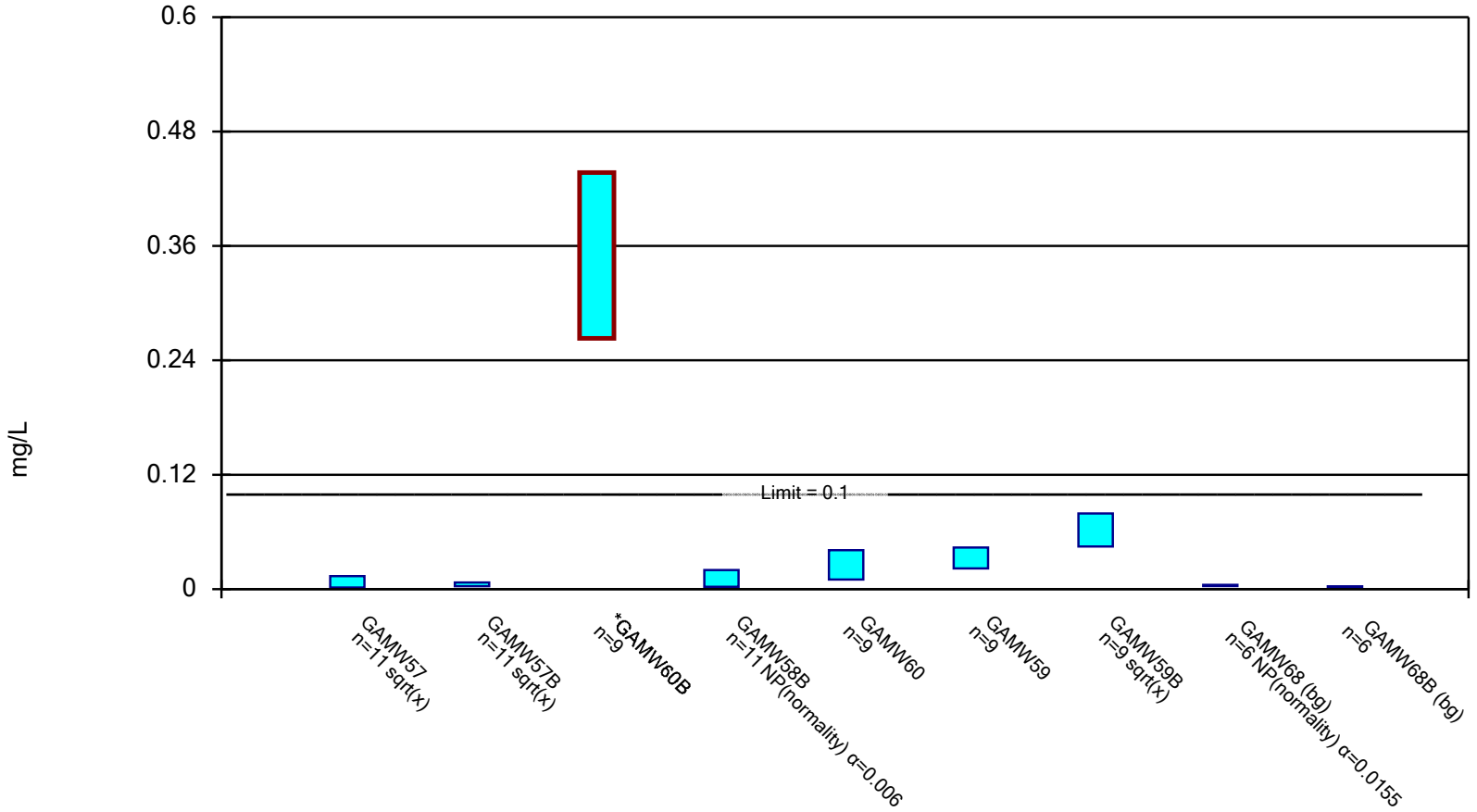


Constituent: Molybdenum Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

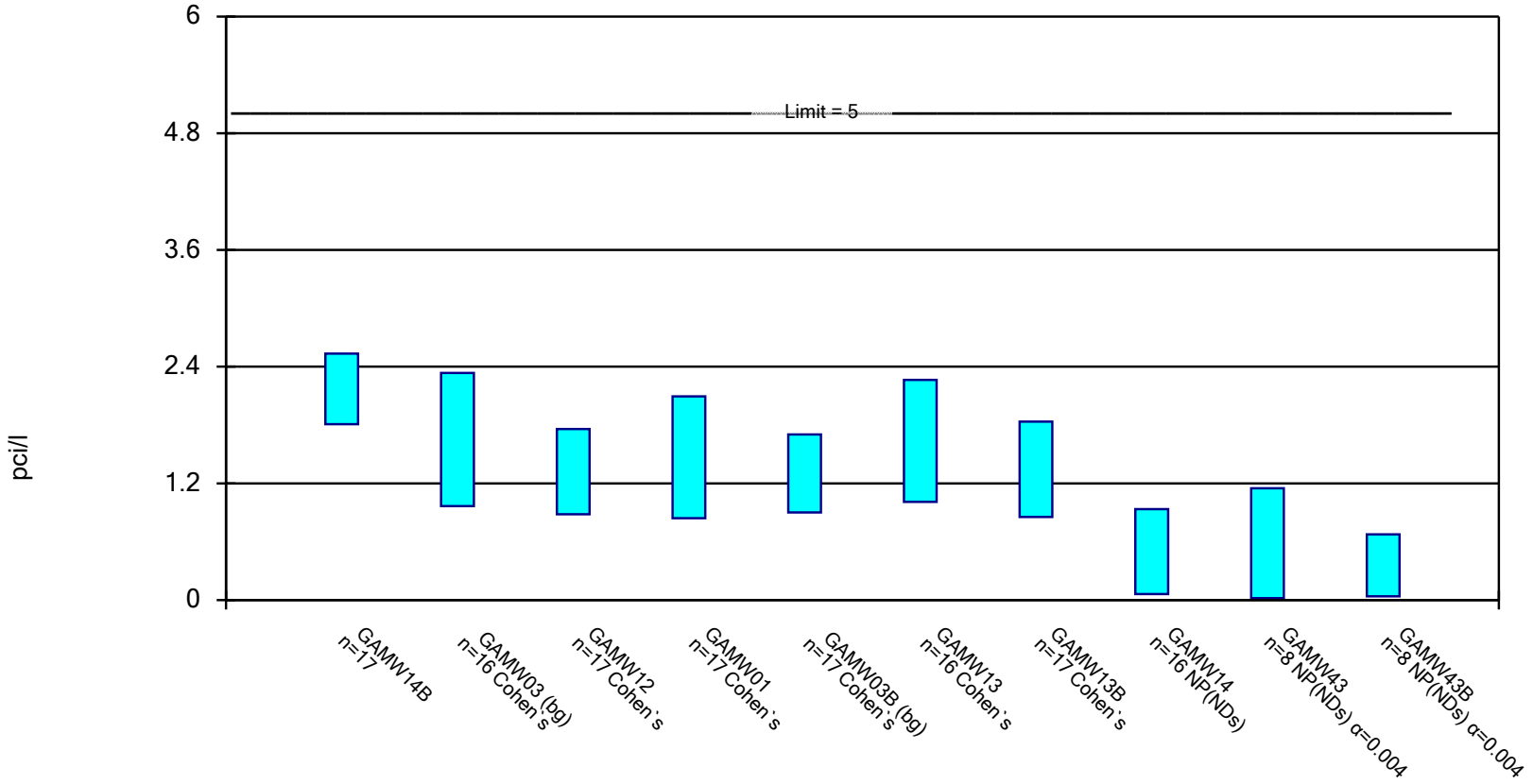


Constituent: Molybdenum Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

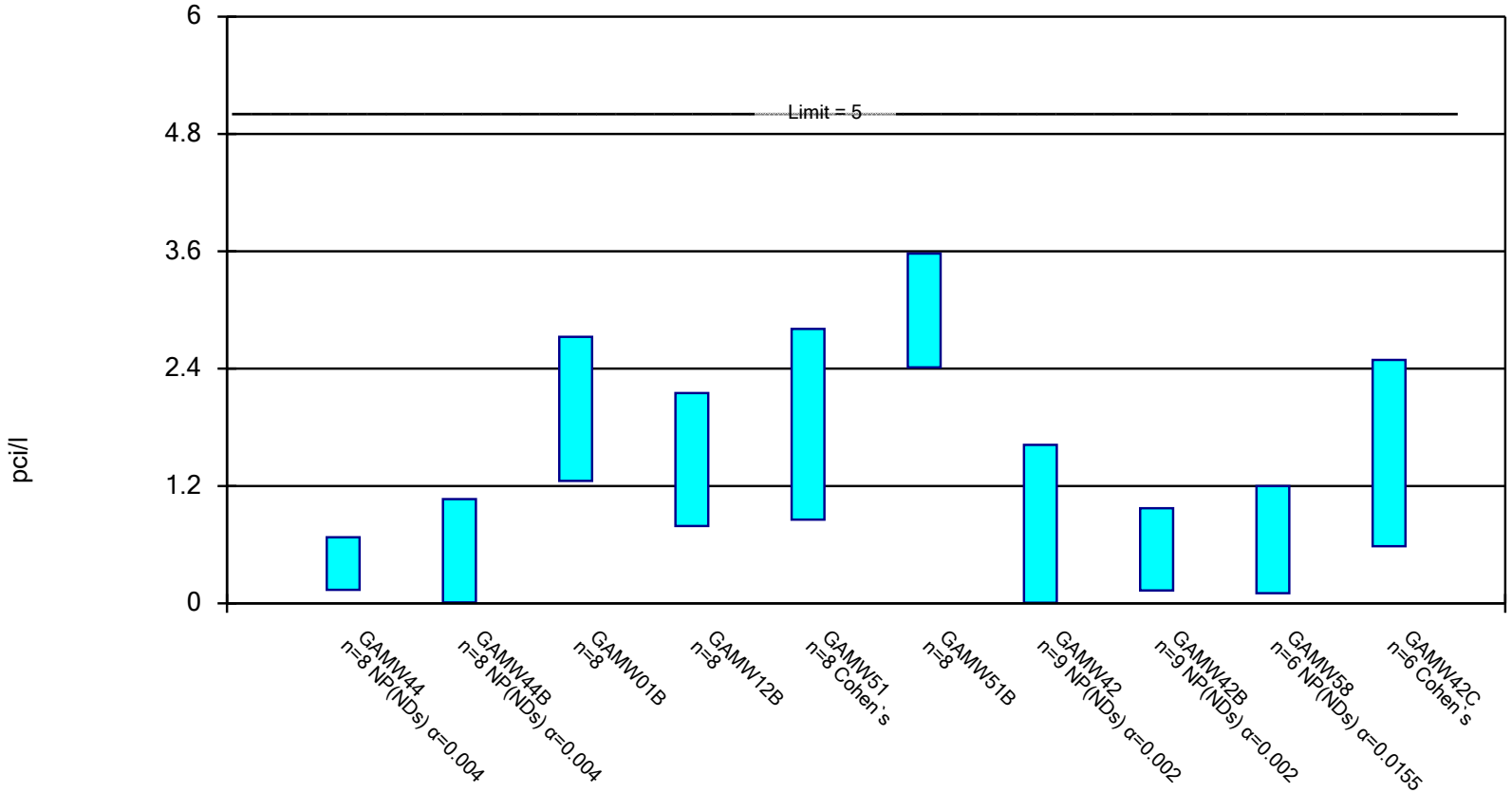


Constituent: Radium 226 + 228 Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

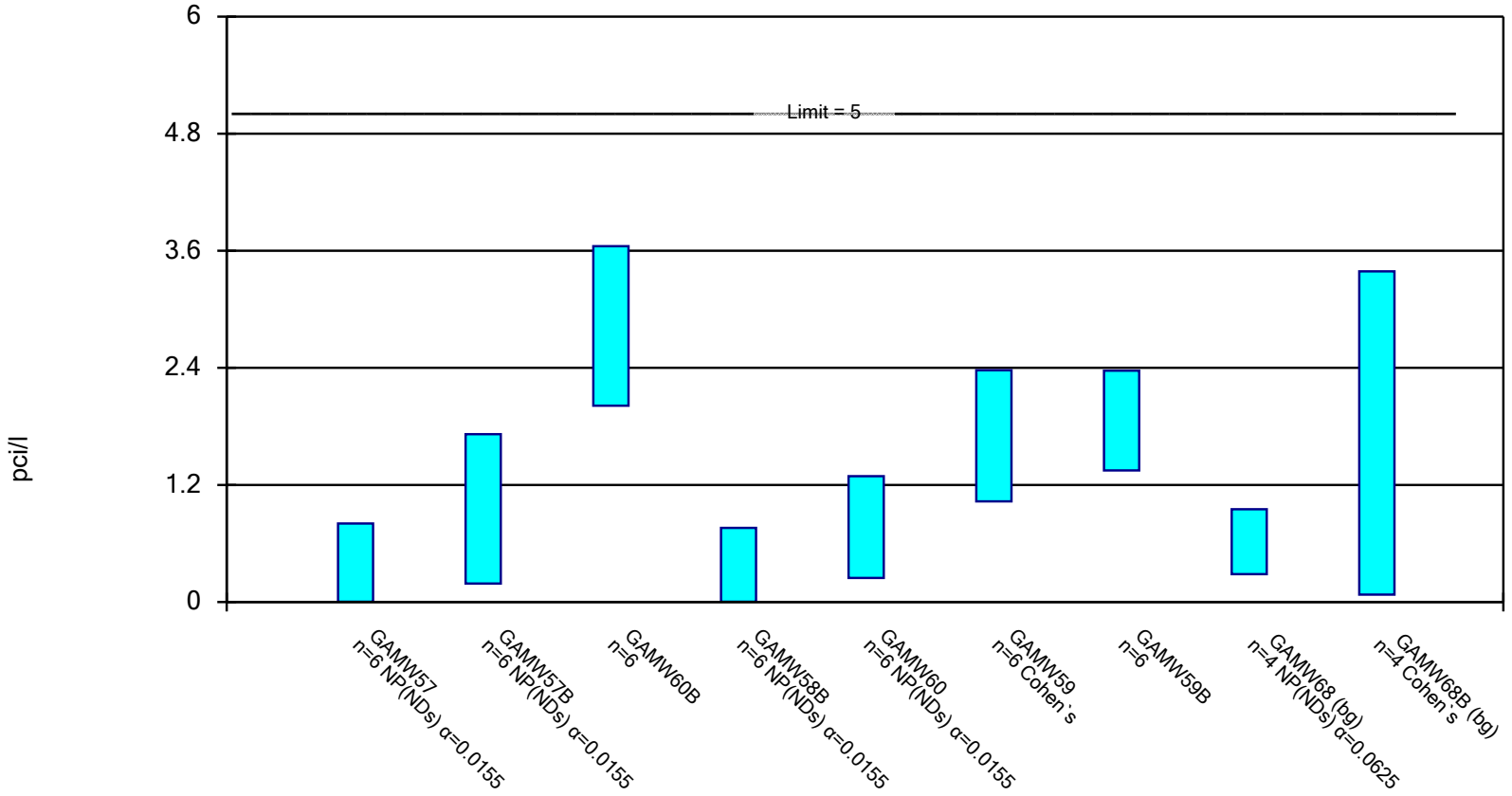


Constituent: Radium 226 + 228 Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

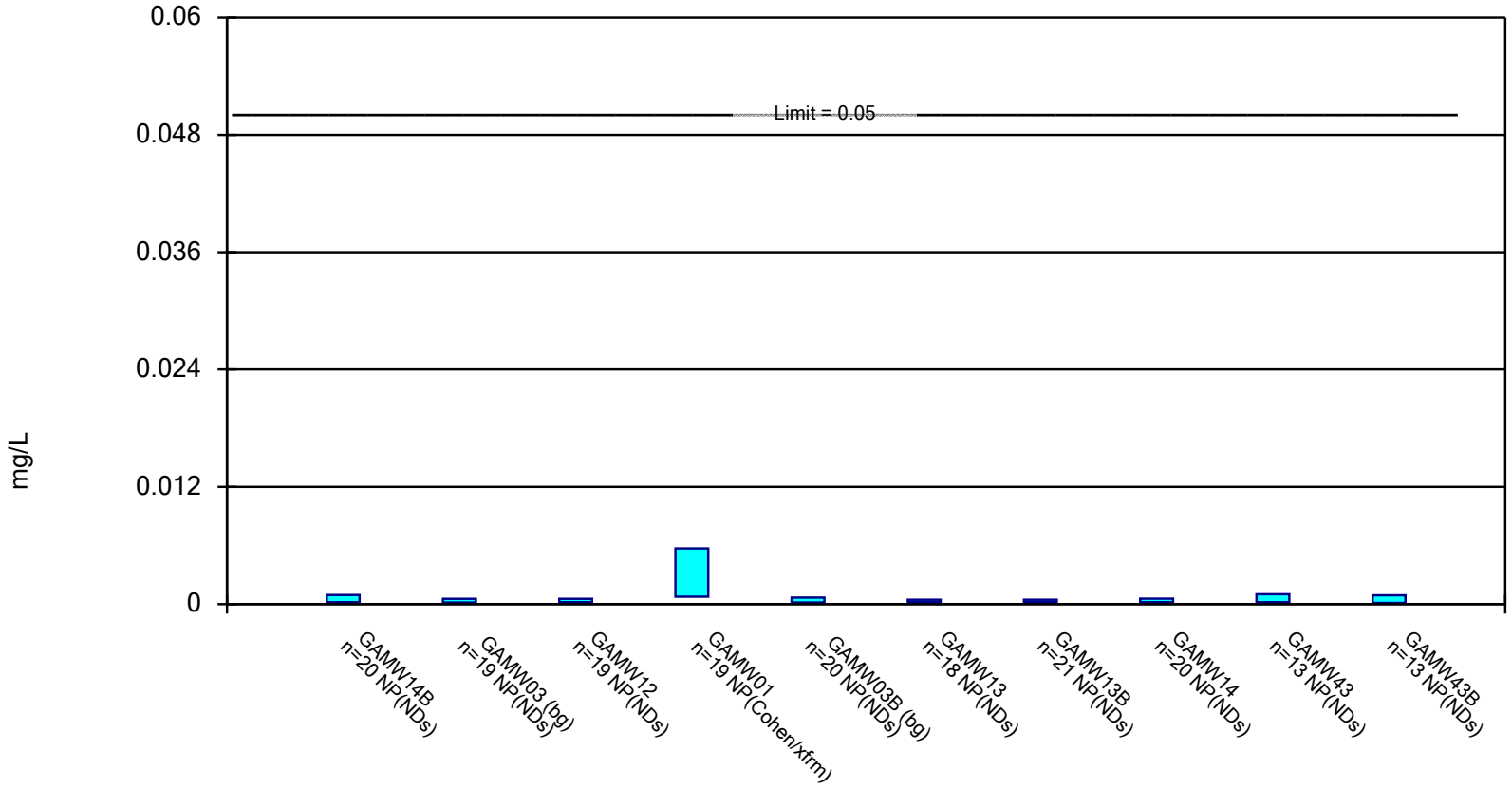


Constituent: Radium 226 + 228 Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

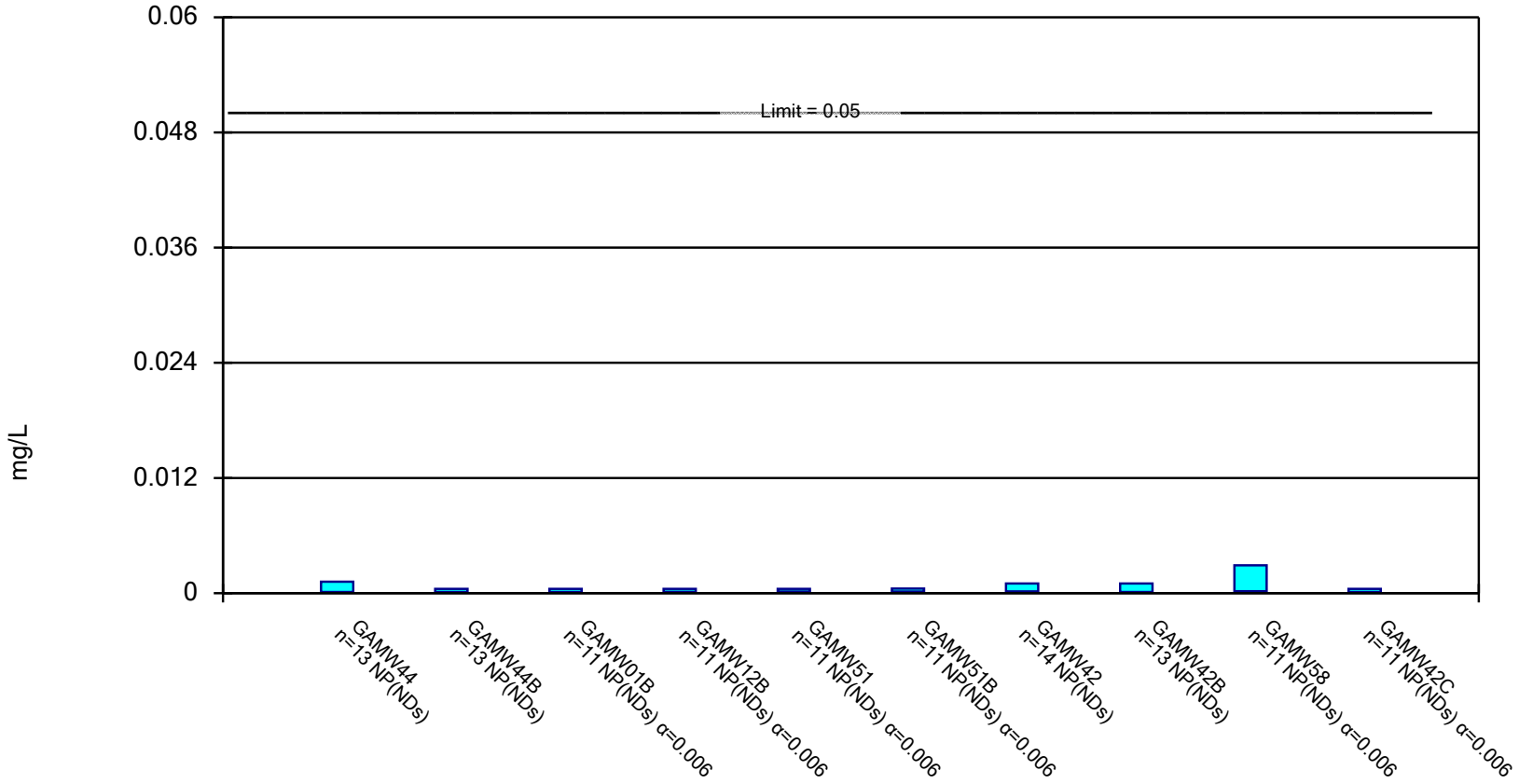


Constituent: Selenium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

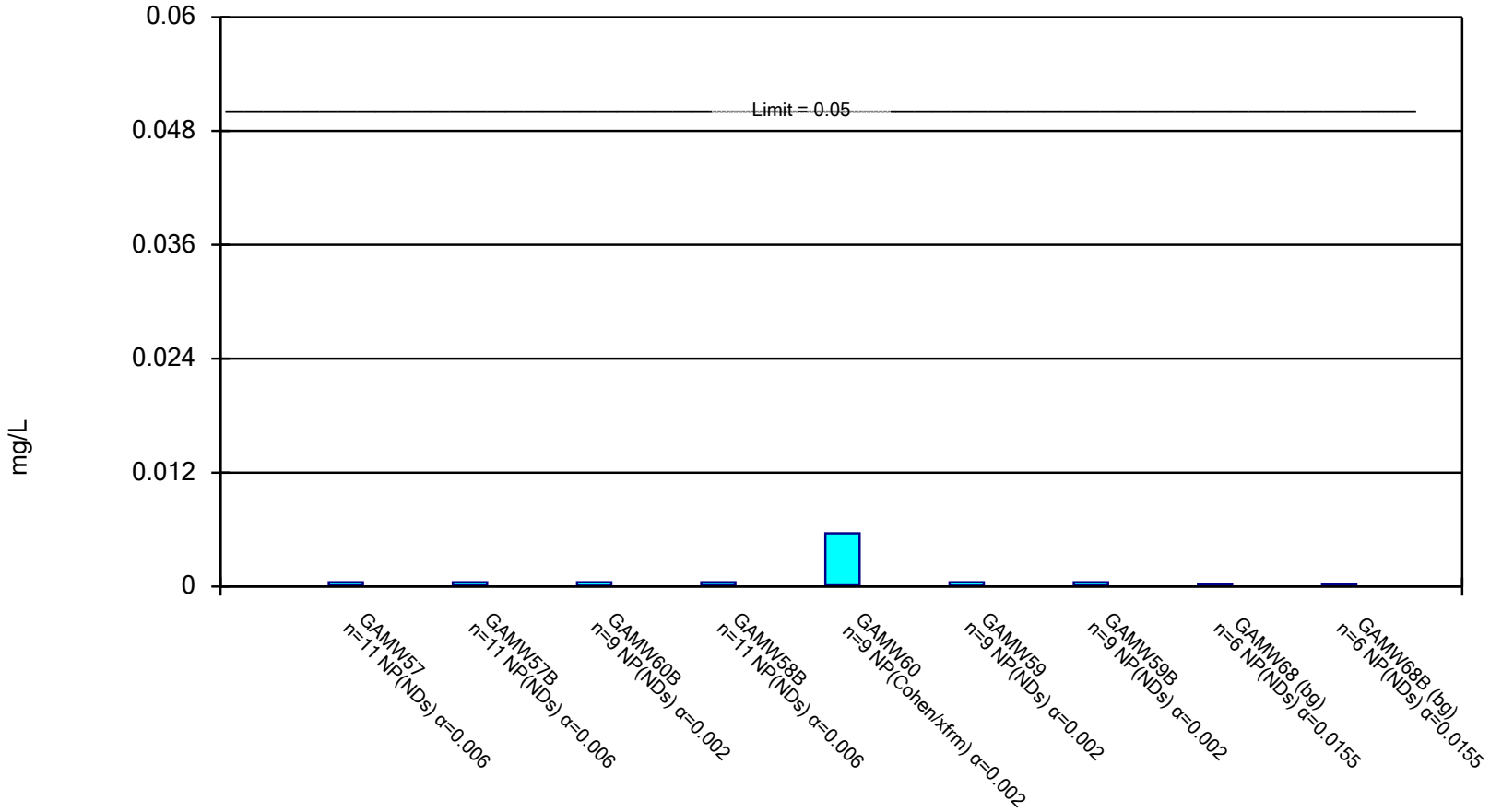


Constituent: Selenium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

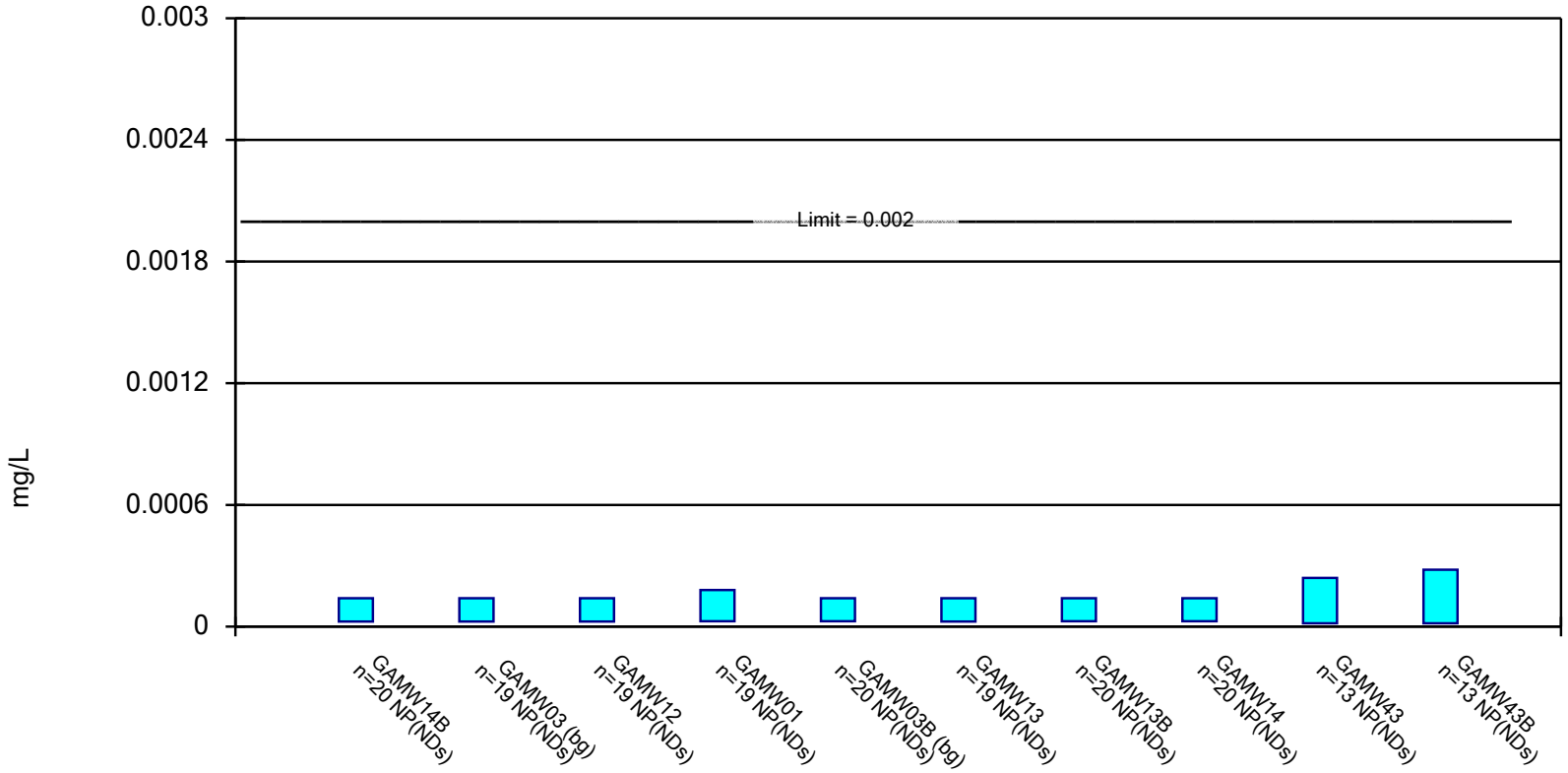


Constituent: Selenium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

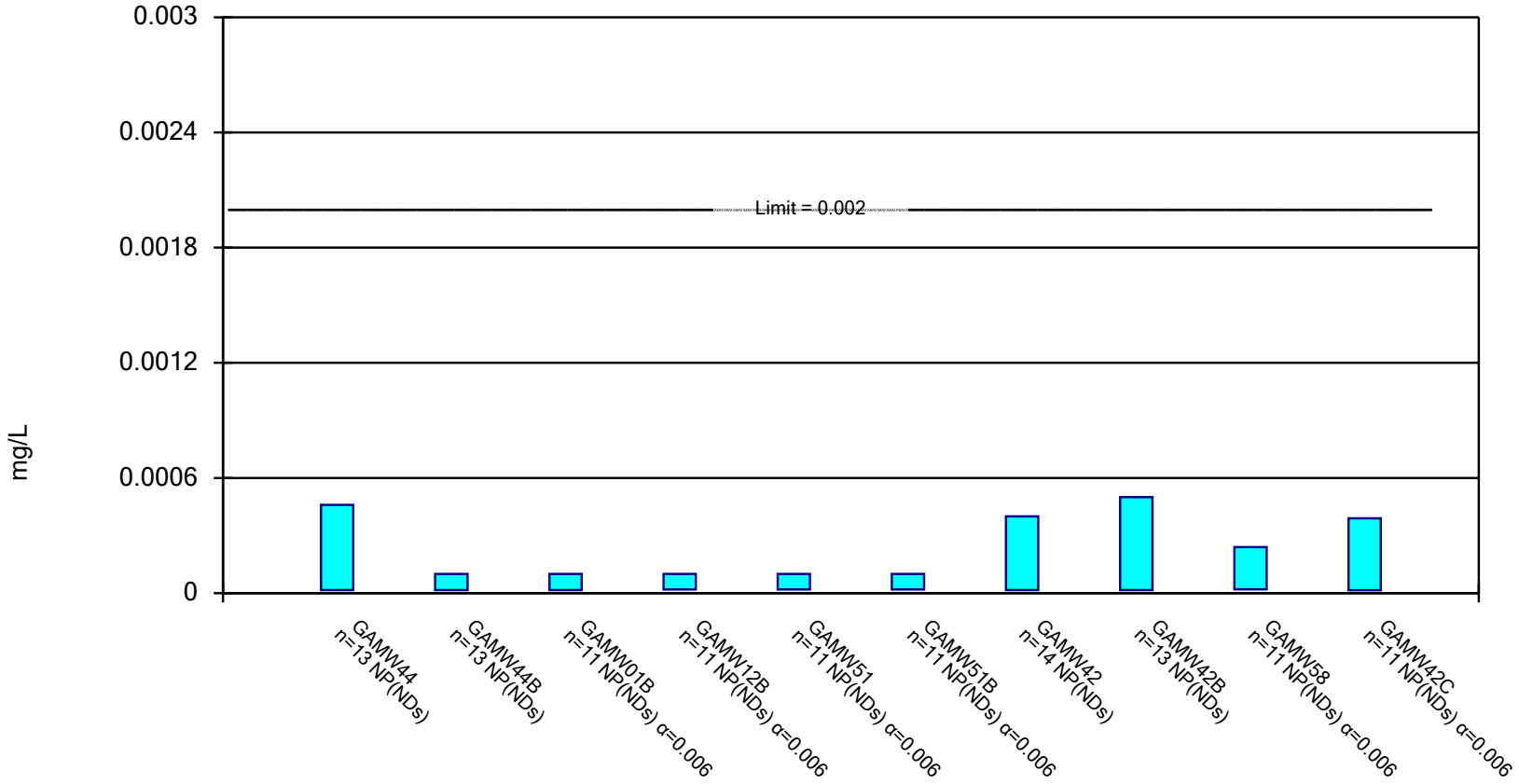


Constituent: Thallium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

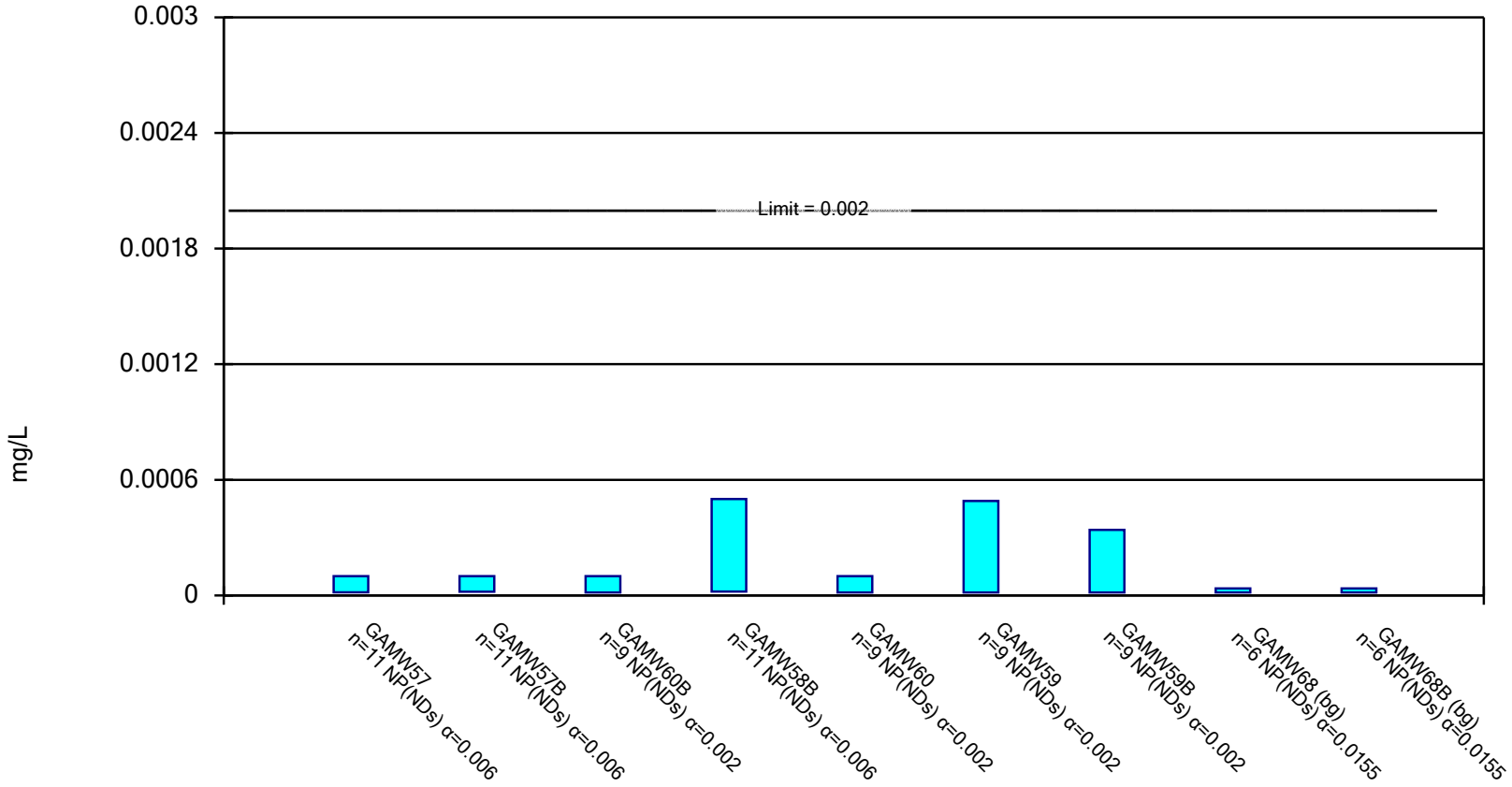


Constituent: Thallium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 8/3/2023 9:02 AM

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

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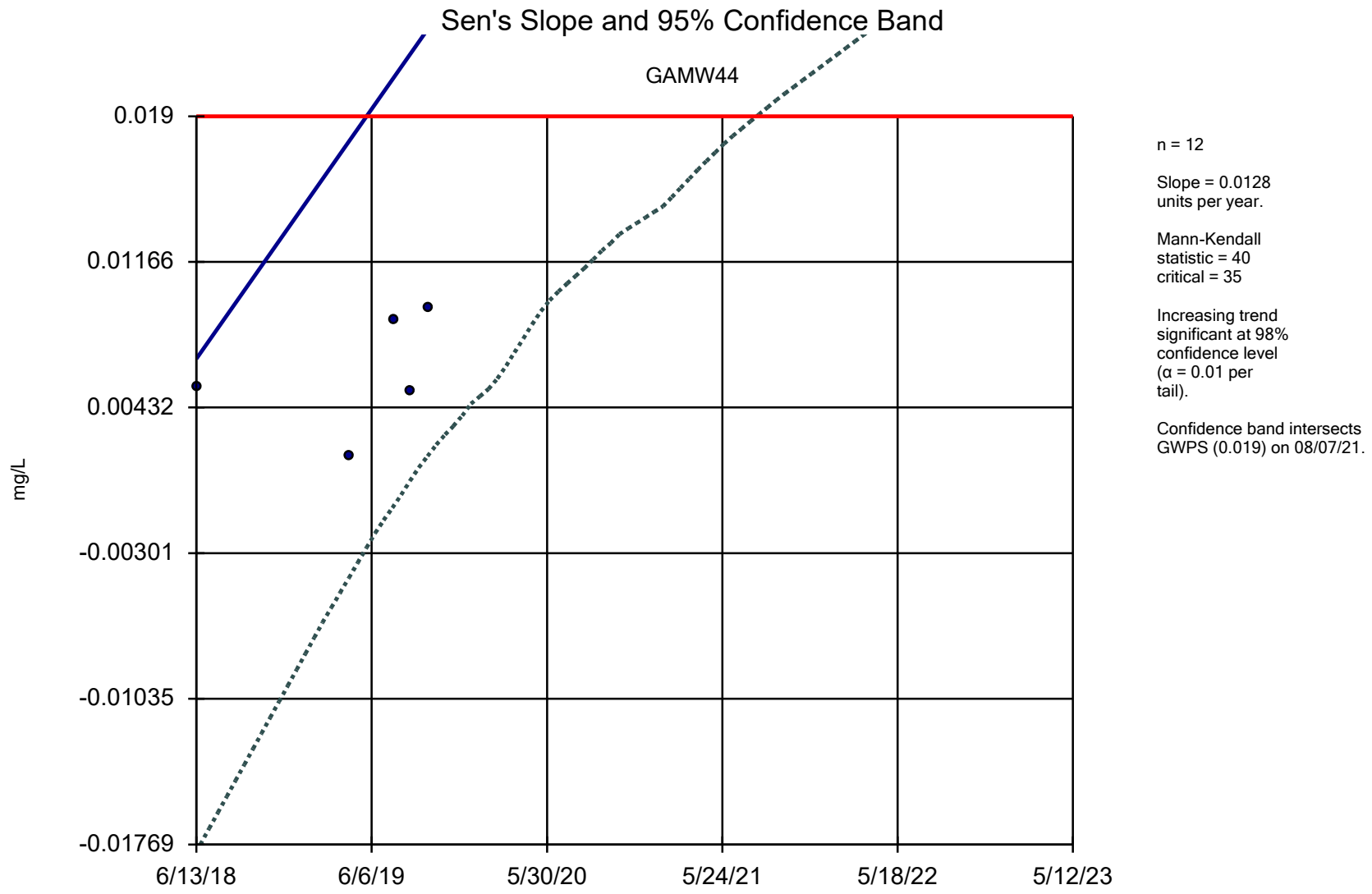

Constituent: Arsenic Analysis Run 8/2/2023 2:48 PM View: WDA Combined Wells

R.M. Schahfer GS Client: NIPSCO Data: RMSGS_CCR_GW_080223

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