From:	Slawa Bruder
To:	Wren, Kira
Cc:	Lon Petts (lpetts@HEPN.com)
Subject:	Merom Area 1+2 - FP 77-03 - May 2024 Groundwater Report and IDEM EDF
Date:	Wednesday, July 3, 2024 3:04:49 PM
Attachments:	image001.png image002.png Merom Area 1 and 2 - FP 77-03 - May 2024 Report - 7-3-24 Final.pdf Merom Area 1 and 2 - FP 77-03- May 2024 IDEM EDF .txt
Importance:	High

Ms. Wren,

Attached to this email is the May 2024 groundwater report prepared for the Merom Landfill Areas 1 and 2 (FP 77-03) and the corresponding IDEM EDF. The May 2024 IDEM EDF was also submitted to geologydata email.

Sincerely,

Slawa Bruder
Senior Project Manager

ATLAS

7988 Centerpoint Drive, Suite 100
Indianapolis, IN 46256
O: 317.579.4029 | **C:** 317-679-1417
Slawa.Bruder@oneatlas.com
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MAY 2024
GROUNDWATER QUALITY DATA AND STATISTICS
AREAS 1 AND 2
HOOSIER ENERGY RURAL ELECTRIC COOPERATIVE , INC.
MEROM GENERATING STATION
TYPE II RESTRICTED WASTE SITE LANDFILL
SULLIVAN COUNTY, INDIANA
PERMIT 77-03

ATLAS PROJECT NO. 170LF01654

JULY 3, 2024

PREPARED FOR:

HOOSIER ENERGY RURAL ELECTRIC COOPERATIVE, INC.
MEROM GENERATING STATION
P.O. BOX 908
BLOOMINGTON, INDIANA 47402
ATTENTION: MR. LON PETTS

July 3, 2024

Ms. Kira Wren
Indiana Department of Environmental Management
Office of Land Quality
100 North Senate Avenue
MC 65-45 IGCN 1101
Indianapolis, Indiana 46204-2251

ATLAS Technical Consultants, LLC

7988 Centerpoint Drive
Indianapolis, IN 46256

Phone +1 317 849 4990
Fax +1 317 849 4278

www.oneatlas.com

Re: May 2024 Groundwater Quality Data and Statistics
Areas 1 and 2
Hoosier Energy Rural Electric Cooperative, Inc.
Merom Generating Station
5500 West Old Highway 54
Sullivan County, Indiana
Permit 77-03
Atlas Project No. 170LF01654

Dear Ms. Wren:

Included with this letter report are the results of the statistical analysis of groundwater quality data for groundwater samples collected between May 7 and May 9, 2024 at the Merom Generating Station Type II Restricted Waste Site Landfill (Site) located in Sullivan County, Indiana. The Permit Renewal 77-03 (Permit) for this landfill was issued by the Indiana Department of Environmental Management (IDEM) on March 18, 2024 and it expires on March 14, 2029. The current Permit specifies groundwater monitoring requirements for monitoring well networks in Area 1, Area 2A, and Area 2B. The permit renewal application was submitted to the IDEM on August 15, 2022 (VFC #83360293). Based on information presented in the permit renewal application the facility ceased accepting waste on/or before October 15, 2015 and has certified the final cover construction for the developed portions of the landfill.

This semi-annual report was prepared in general accordance with the Permit dated March 18, 2024 and the *Statistical Evaluation Plan* (*StEP*) dated July 23, 2015 that was approved by the IDEM on October 30, 2015.

The statistical analysis was performed on groundwater analytical results provided by Pace Analytical Services, Inc (Pace) of Indianapolis, Indiana. The final laboratory analytical reports and the Chain-of-Custody Forms are included in Appendix A and the field Groundwater Monitoring Forms with the Low-Flow Test Reports are included in Appendix B. Groundwater quality results in the digital format required by the IDEM have been submitted via email to geologydata@idem.in.gov.

Introduction and Background Information

The permitted groundwater monitoring system at the site encompasses Area 1, Area 2A, and Area 2B, and consists of twenty one (21) monitoring wells. Monitoring wells SWW-5, SWW-6, SWW-14, SWW-15, SWW-18R, SWW-19, SWW-30, and SWW-31 provide groundwater monitoring for Area 1. Monitoring wells SWW-20, SWW-21, SWW-22, SWW-23, SWW-24, SWW-25R, SWW-26, SWW-27, and SWW-28 provide groundwater monitoring for Area 2A. Monitoring wells SWW-2B-1, SWW-2B-2, SWW-2B-3, and SWW-2B-4 are located in Area 2B. As listed in Requirement C3 of the Permit, monitoring wells SWW-15, SWW-30, and SWW-31 are considered hydraulically upgradient. Also, per requirement C3 of the Permit the facility must sample the effluent water discharge point (SD-1) connected to the subdrainage system in Area 2A.

The described monitoring well network was designed to provide groundwater monitoring of the uppermost hydrostratigraphic unit that consists generally of loam with discontinuous lenses of silt and sand. Each existing monitoring well is sampled in May and November of each year as described in Requirement C14 of the Permit. Each groundwater sample must be analyzed for the following Phase I parameters: arsenic (dissolved), barium (dissolved), boron (dissolved), cadmium (dissolved), chloride, chromium (dissolved), fluoride, lead (dissolved), mercury (dissolved), selenium (dissolved), sodium (dissolved), sulfate, total dissolved solids, pH (field), and specific conductance (field).

Dedicated equipment was installed at the monitoring well network between 2016 and the first quarter of 2017. Monitoring well SWW-14 remains the only monitoring location at the site's monitoring well network that is not equipped with a dedicated QED bladder pump. This well continues to be sampled with a dedicated bailer.

Monitoring well SWW-25 at Area 2A was destroyed during construction activities at the site. The IDEM was notified about the well's condition in an e-mail correspondence dated August 21, 2020. Monitoring well SWW-25 was abandoned by overdrilling and the replacement well SWW-25R was installed on October 26, 2020. The first sampling event at the replacement well SWW-25R took place in November 2020. The monitoring well SWW-25R installation was accepted by the IDEM in the review letter dated February 2, 2021. Following the abandonment of monitoring well SWW-25 and installation of the replacement well SWW-25R, the facility prepared a *Revised Groundwater Sampling and Analysis Plan* (*GW SAP*). The *GW SAP* was submitted to the IDEM on September 29, 2021 and approved on November 23, 2021.

The review of the *November 2019 Groundwater Quality Data and Statistics Area 1 and 2* report dated January 16, 2020 was issued by the IDEM on April 30, 2020. In the review, the IDEM indicated that the report did not adequately address significant increasing trends for several parameters for Areas 1 and 2A. The IDEM requested that the facility submit a report addendum that addresses the causes of the significant increasing trends for the wells (Area 1: SWW-5, SWW-18R, and SWW-19; Area 2A: SWW-21, SWW-22, SWW-23, SWW-24, and SWW-25). In addition, the IDEM requested that the facility provide an explanation how the landfill improvements may improve the shallow groundwater quality. The addendum to the November 2019 groundwater report was submitted to the IDEM on June 29, 2020. The IDEM's review of the addendum was issued on August 17, 2020. The IDEM described information enclosed in the June 25, 2020 addendum as adequate in response to the IDEM's April 30, 2020 letter (VFC # 829594444).

Effluent water discharge point SD-1 was destroyed prior to the May 2020 sampling event. A new manhole serving for sampling location SD-1 was installed on October 28, 2020. The facility submitted information regarding the new sampling point on October 30, 2020 (VFC# 83066807). On November 24, 2020, the IDEM approved the new location for sampling point SD-1. The facility started collecting samples from the new manhole during the November 2020 sampling event.

Groundwater Flow Conditions and Groundwater Sampling

The groundwater flow maps prepared from static water level measurements obtained on May 6, 2024 for Area 1 (Figure 1), Area 2A, and Area 2B (Figure 2) are included in Appendix C. Static water level measurements indicate groundwater flow is directed to the northwest in Area 1. The groundwater flow in Area 2A is radial to the northwest, west, north, and northeast. The groundwater flow in Area 2B is to the west. The observed flow directions are similar to previous groundwater monitoring events.

For the May 2024 sampling event, wells SWW-6, SWW-14, and SWW-22 were purged three well volumes and sampled. Monitoring wells SWW-5, SWW-15, SWW-18R, SWW-19, SWW-20, SWW-21, SWW-23, SWW-24, SWW-25R, SWW-26, SWW-27, SWW-28, SWW-30, SWW-31, SWW-2B-1, SWW-2B-3, and SWW-2B-4 were purged and sampled following the low-flow technique. Duplicate samples were collected from wells SWW-2B-3 (Duplicate 1) and SWW-20 (Duplicate 2).

Sampling point SD-1 was not flowing and was not sampled for the May 2024 sampling event.

Statistical Procedures

For the May 2024 sampling event, the statistical analysis was performed using the commercial computer program DUMPStat[1]. The wells and parameters were analyzed using intrawell analysis as discussed in the StEP dated July 23, 2015. In accordance with the StEP, the background database is updated every two years. At the time the background database is updated, the background data is screened for trends using Sen's nonparameteric estimate of trends.

A thorough discussion of the statistical methodology used is included in Dr. Gibbons' book entitled *Statistical Methods for Groundwater Monitoring (1994)*. The methods used are in accordance with the U.S. EPA documents entitled: *Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities - Interim Final Guidance dated February 1989, Addendum to the Interim Final Guidance* dated June 1992*,* and *Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities-Unified Guidance* dated March 2009.

The results for Phase I inorganic and field parameters from the permitted monitoring wells were analyzed by performing intrawell statistical comparisons. For those monitoring well and constituent combinations with a detection frequency greater than 25%, DUMPStat calculates and displays the normal control limit. For those monitoring well and constituent combinations where the detection frequency is less than 25%, DUMPStat calculates and displays the nonparametric prediction limit equal to the maximum detected value.

[1] DUMPStat Version 3.0, written by Robert Gibbons and distributed and supported by Discerning Systems Inc.

The background time window was updated for the May 2023 sampling event. Also, groundwater quality data reported from the replacement monitoring well SWW-25R was merged with data reported from the abandoned well SWW-25 during the May 2023 sampling event. As indicated in the groundwater quality report submitted for the November 2022 sampling event, the chloride result reported for the November 2020 sampling event for well SWW-25R was marked as manual outlier for the May 2023 sampling event.

Based on the May 2023 trend test results, the background time window at SWW-14 was not updated for the May 2023 sampling event. For the May 2023 statistical analysis, with the exception of total dissolved solids, the background time window encompassing data from 2004 until December 2020 at well SWW-14 was maintained due to increasing trends for dissolved boron and sulfate. In addition, at Area 2A, except for wells SWW-20, SWW-21, and SWW-25R, the control charts for the inorganic Phase I parameters include background data from 2004 to December 2022. For the May 2023 sampling event, based on the trend test results, the background time window ending in December 2020 was maintained at wells SWW-20, SWW-21, and SWW-25R. Based on the May 2023 trend test results at well SWW-25R, the facility indicated that the background time window at well MW-25R will be evaluated in conjunction with the May 2024 sampling event once there are eight (8) samples available from the replacement well SWW-25R. At Area 2B, except for total dissolved solids, intrawell control charts for the inorganic Phase I parameters include data from November 2011 to December 2022.

Total dissolved solids were added to the required parameter list in conjunction with the 2018 Permit Renewal and the facility collected the background groundwater quality for this constituent. The groundwater quality background for total dissolved solids was established during the May 2023 sampling event. The background time window for this constituent was established to include historical data from November 2018 through November 2022. The results of statistical analysis for total dissolved solids at well SWW-14 of Area 1 and wells SWW-20, SWW-21, and SWW-25R of Area 2A are presented in Appendix F and the results for remaining wells in Areas 1, 2A, and 2B are enclosed in Appendix D1, D2, and D3, respectively.

Findings

Area 1 - Intrawell Analysis

Monitoring wells and parameters are summarized in the set of control charts included in Appendix D1.

Selenium, Dissolved. During the May 2024 sampling event, dissolved selenium concentrations of 0.0027 mg/L, 0.01 mg/L, and 0.0024 mg/L reported from wells SWW-15, SWW-19, and SWW-31 exceeded the non-parametric prediction limit of 0.002 mg/L. Dissolved selenium is, in general, not reported above the laboratory reporting limit in groundwater samples collected at wells SWW-15, SWW-19, and SWW-31 and the statistical limits calculated for dissolved selenium at the three wells represent nonparametric prediction limit. The laboratory was contacted to review the May 2024 data for dissolved selenium. The laboratory reviewed data and confirmed the initial May 2024 results reported for selenium for the three wells.

Sulfate. For the May 2024 sampling event the calculated CUSUM value of 464.8066 mg/L for sulfate at well SWW-14 exceeded the normal control limit of 434.7151 mg/L, however, the May 2024 sulfate concentration of 231 mg/L remained below the established limit.

Total Dissolved Solids. Except for well SWW-14, the May 2024 statistical analyses for total dissolved solids are presented in Appendix D1. The statistical analysis for total dissolved solids at well SWW-14 is presented in Appendix F.

Area 2A - Intrawell Analysis

Monitoring wells and parameters are summarized in the set of control charts included in Appendix D2.

Arsenic, Dissolved. For the May 2024 sampling event, dissolved arsenic was detected at the concentration of 0.016 mg/L at monitoring well SWW-28. The May 2024 detection for dissolved arsenic at well SWW-28 was below the normal control limit of 0.0483 mg/L.

Boron, Dissolved. For the May 2024 sampling event, the dissolved boron concentration of 1.10 mg/L and the calculated CUSUM value of 1.3586 mg/L reported for well SWW-20 exceeded the normal control limit of 0.4310 mg/L. In general, dissolved boron has been elevated at monitoring well SWW-20 since 2020. The recent results are inconsistent with historical data reported prior to the May 2020 sampling event. The facility will closely monitor results for dissolved boron reported for well SWW-20.

Chloride. For the May 2024 sampling event, the chloride concentration of 12.7 mg/L reported for well SWW-27 exceeded the nonparametric prediction limit of 12.4 mg/L.

During the May 2024 sampling event, the calculated CUSUM value of 655.0618 mg/L for chloride at well SWW-20 exceeded the normal control limit of 641.2950 mg/L. However, the actual chloride concentration of 225 mg/L reported for well SWW-20 remained below the established statistical limit for the May 2024 sampling event.

Sodium, Dissolved. For the May 2024 sampling event, the calculated CUSUM value of 76.9699 mg/L for dissolved sodium at well SWW-20 exceeded the normal control limit of 72.1777 mg/L. However, the actual dissolved sodium concentration of 42.2 mg/L remained below the established statistical limit for the May 2024 sampling event.

Selenium, Dissolved. During the May 2024 sampling event, the dissolved selenium concentration of 0.0029 mg/L reported from well SWW-24 exceeded the nonparameteric prediction limit of 0.0020 mg/L. Dissolved selenium had not been detected above the laboratory reporting limits in groundwater samples reported from SWW-24 between 2005 and November 2023. There were no other detections for dissolved selenium in groundwater reported from wells in Area 2A for the May 2024 sampling event.

Specific Conductivity (Field). For the May 2024 sampling event, the calculated CUSUM value of 2673.6448 for specific conductivity (field) at well SWW-20 exceeded the normal control limit of 2600.5692 mg/L. However, the actual field measurement of 1450 µmhos/cm reported for well SWW-20 remained below the control limit for the May 2024 sampling event.

Sulfate. For the May 2024 sampling event, a sulfate concentration at well SWW-20 was initially reported at 573 mg/L. However, the May 2024 sulfate result reported from the duplicate sample (Duplicate 2) collected from well SWW-20 was 276 mg/L. Due to this discrepancy between the regular and the duplicate sample results, the laboratory was contacted to confirm the initial results for sulfate. Both samples were reanalyzed (outside the sample's hold time). The results of the reanalysis for the regular and the duplicate samples were 260 mg/L and 243 mg/L, respectively. Based on these reanalysis results, it was concluded that the initial result for the regular sample was erroneous. The May 2024 sulfate result reported from the reanalysis was used for the May 2024 sampling event. The revised laboratory report contains the initial and the reanalysis results for the regular and the duplicate samples.

Total Dissolved Solids. Total dissolved solids were added to the required parameter list with the Permit Renewal in 2018. The facility established the groundwater quality background for total dissolved solids during the May 2023 sampling event. For the May 2024 sampling event, except for monitoring wells SWW-20, SWW-21, and SWW-25R, the statistical analyses for total dissolved solids for the remaining wells are presented in Appendix D2. The statistical analyses for total dissolved solids at wells SWW-20, SWW-21, and SWW-25R are presented in Appendix F.

Monitoring Well SWW-25R. Monitoring well SWW-25 was abandoned and replaced by monitoring well SWW-25R prior to the November 2020 sampling event. Groundwater samples were collected from the replacement well SWW-25R during the November 2020, 2021, 2022, 2023, and May 2024 semi-annual sampling events. The results reported from monitoring well SWW-25R were merged with historical results at well SWW-25 in conjunction with the May 2023 sampling event. This approach was proposed in the *November 2022 Groundwater Quality Data and Statistics* report dated January 6, 2023. However, due to increasing trends observed in historical data, the background time window update, except for total dissolved solids, was not performed at well SWW-25R during the May 2023 sampling event.

In the *November 2023 Groundwater Quality Data and Statistics Areas 1 and 2* report dated January 16, 2024, the facility indicated that the background time window at well SWW-25R will be re-evaluated in conjunction with the May 2024 sampling event once there are eight samples available from the replacement well SWW-25R.

Based on review of the May 2024 control charts for well SWW-25R enclosed in Appendix D2, it appears that chloride and sulfate concentrations have decreased for the last seven (7) and four (4) sampling events, respectively. Chloride was reported at the concentration of 901 mg/L for the first post installation sampling event in November 2020. This result has been marked as an outlier in the DUMPStat database. Between May 2021 and May 2024, chloride concentrations were reported between 92.6 mg/L and 261 mg/L. Sulfate at well SWW-25R was reported between 999 mg/L and 1260 mg/L between November 2020 and May 2022. Starting with the November 2022 sampling event, sulfate concentrations started to decrease and between November 2022 and May 2024 were reported between 444 mg/l and 533 mg/L. The facility proposes to further monitor trends in SWW-25R before updating the background time window.

Area 2B - Intrawell Analysis

Monitoring wells and parameters are summarized in the set of control charts included in Appendix D3.

For the May 2024 sampling event, none of the required parameters exceeded their corresponding statistical limits at Area 2B.

Total Dissolved Solids. Total dissolved solids were added to the required parameter list with the Permit Renewal in 2018. The facility established the groundwater quality background for this constituent during the May 2023 sampling event. The May 2024 statistical analysis for total dissolved solids at Area 2B is presented in Appendix D3.

SD-1 Effluent Discharge Point Results

The effluent water discharge point SD-1 was not flowing, and no sample was collected for the May 2024 sampling event.

A table in Appendix E reflects the results of the May 2024 sampling event at the effluent discharge point SD-1.

Conclusions and Recommendations

The Permit Renewal was issued by the IDEM on March 18, 2024 and will expire on on March 14, 2029.

The May 2024 groundwater results reported from Area 1, Area 2A, and Area 2B of the Merom Generating Station were evaluated using the statistical approach presented in the Statistical Evaluation Plan dated July 23, 2015.

For the May 2024 sampling event, the dissolved boron concentration reported from monitoring well SWW-20; the dissolved chloride concentration reported from monitoring well SWW-27; and dissolved selenium concentrations reported from wells SWW-15, SWW-19, SWW-24, and SWW-31 exceeded their corresponding statistical limits. Following the approved *StEP* and 329 IAC 10-29-6(d), no verification resampling is required for these constituent/well pairs as these exceedances represent a single parameter exceedance at each location. The facility will closely monitor results reported for dissolved boron, chloride, and dissolved selenium during future sampling events.

Also, for the May 2024 sampling event, calculated CUSUM values for dissolved boron, chloride, dissolved sodium, and specific conductance at well SWW-20 and for sulfate at well SWW-14 exceeded the established corresponding statistical limits. However, except for dissolved boron at well SWW-20, the actual concentrations for the listed constituents remained below the statistical limits.

Monitoring well SWW-25 was abandoned and the replacement well SWW-25R was installed on October 26, 2020. Groundwater data from the replacement well SWW-25R was merged with historical data reported from well SWW-25. Due to multiple increasing trends present in combined

historical data from two wells, SWW-25 and SWW-25R, the background time window was not updated during the last background time window that took place during the May 2023 sampling event. During the May 2024 sampling event, it was noted that the most recent results reported for chloride and sulfate reported for well SWW-25R decreased since its installation and additional data is needed to evaluate the background time window at this location. Although, the replacement well SWW-25R has been sampled eight times, the first sample for chloride was marked as an outlier and the four latest results for sulfate are decreased in comparison with the first four samples collected at this location.

The impacts of coal ash on groundwater in the upper hydrostratigraphic unit, 18-37 feet below ground surface in Area 1 and Area 2, are known and are indicated in the IDEM's historical groundwater statistics review letters. The site is in corrective action for coal ash impacts. As indicated in the *Addendum to the November 2019 Groundwater Quality Report dated January 16, 2020 and Response to April 30, 2020 IDEM Review Letter* dated June 25, 2020, approved by IDEM on August 17, 2020 since 2016, Hoosier Energy has taken aggressive action at Area 1 and Area 2A landfills to reduce infiltration, improve stormwater management, reduce landfill seepage, and collect groundwater impacted by landfill leachate. Improvements for the Area 1 landfill were described in the May 5, 2020 Minor Permit Modification Application (VFC# 82971271) and for the Area 2 in the April 10, 2019 Minor Permit Modification (VFC# 82750285).

The facility proposes to continue to closely monitor all parameters at the site's monitoring well network and also continue with the Phase I monitoring program. The next groundwater monitoring event is scheduled for November 2024.

We appreciate your review of these results and recommendations. If you have any questions concerning information contained in this report, please call either of the undersigned at 317.849.4990.

Sincerely,

Slawa Bruder
Senior Project Manager

Robert T. Duncan, L.P.G.
Principal Geologist

Copies: Ms. Kira Wren – IDEM (1 PDF copy)
Mr. Lon Petts – Hoosier Energy (1 PDF copy)

Appendix A: Pace Analytical Reports

Field Duplicate (DUP-1) Collected from Monitoring Well SWW-2B-3
Field Duplicate (DUP-2) Collected from Monitoring Well SWW-20

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

June 17, 2024

Ms. Slawa Bruder
ATC Group Services
7988 Centerpoint Drive
Indianapolis, IN 46268

RE: Project: Merom Area 1&2
Pace Project No.: 50372904

Dear Ms. Bruder:

Enclosed are the analytical results for sample(s) received by the laboratory on May 10, 2024. 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,

Will Statz
will.statz@pacelabs.com
(317)228-3105
Project Manager

Enclosures

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Merom Area 1&2
Pace Project No.: 50372904

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
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50372904001	**SWW-5**	Water	05/08/24 15:11	05/10/24 12:00
50372904002	**SWW-6**	Water	05/08/24 15:43	05/10/24 12:00
50372904003	**SWW-14**	Water	05/08/24 16:18	05/10/24 12:00
50372904004	**SWW-15**	Water	05/07/24 14:37	05/10/24 12:00
50372904005	**SWW-18R**	Water	05/09/24 10:16	05/10/24 12:00
50372904006	**SWW-19**	Water	05/09/24 11:07	05/10/24 12:00
50372904007	**SWW-20**	Water	05/07/24 15:17	05/10/24 12:00
50372904008	**SWW-21**	Water	05/08/24 11:13	05/10/24 12:00
50372904009	**SWW-22**	Water	05/08/24 11:58	05/10/24 12:00
50372904010	**SWW-23**	Water	05/07/24 14:00	05/10/24 12:00
50372904011	**SWW-24**	Water	05/07/24 13:22	05/10/24 12:00
50372904012	**SWW-25R**	Water	05/07/24 12:40	05/10/24 12:00
50372904013	**SWW-26**	Water	05/08/24 12:47	05/10/24 12:00
50372904014	**SWW-27**	Water	05/08/24 14:16	05/10/24 12:00
50372904015	**SWW-28**	Water	05/08/24 09:58	05/10/24 12:00
50372904016	**SWW-2B-1**	Water	05/08/24 13:34	05/10/24 12:00
50372904017	**SWW-2B-2**	Water	05/07/24 10:05	05/10/24 12:00
50372904018	**SWW-2B-3**	Water	05/07/24 11:03	05/10/24 12:00
50372904019	**SWW-2B-4**	Water	05/07/24 11:52	05/10/24 12:00
50372904020	**Trip Blank**	Water	05/08/24 08:00	05/10/24 12:00
50372904021	**DUP-1**	Water	05/08/24 08:00	05/10/24 12:00
50372904022	**DUP-2**	Water	05/08/24 08:00	05/10/24 12:00
50372904023	**SWW-30**	Water	05/09/24 12:11	05/10/24 12:00
50372904024	**SWW-31**	Water	05/09/24 13:03	05/10/24 12:00

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE ANALYTE COUNT

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50372904001	**SWW-5**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904002	**SWW-6**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904003	**SWW-14**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904004	**SWW-15**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904005	**SWW-18R**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904006	**SWW-19**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I

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SAMPLE ANALYTE COUNT

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904007	**SWW-20**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904008	**SWW-21**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904009	**SWW-22**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904010	**SWW-23**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904011	**SWW-24**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	ILP	1	PASI-I

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904012	**SWW-25R**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	ILP	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904013	**SWW-26**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904014	**SWW-27**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904015	**SWW-28**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904016	**SWW-2B-1**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	CAW	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-Cl-E	ZM	1	PASI-I
50372904017	**SWW-2B-2**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	MTM	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904018	**SWW-2B-3**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	MTM	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904019	**SWW-2B-4**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	MTM	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904020	**Trip Blank**	EPA 9056	ADM	1	PASI-I
		EPA 6010	NWB	4	PASI-I
		EPA 6020	MTM	4	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904021	**DUP-1**	EPA 9056	ADM	1	PASI-I
		EPA 6010	JPK	4	PASI-I
		EPA 6020	MTM	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904022	**DUP-2**	EPA 9056	ADM	1	PASI-I
		EPA 6010	ABH	4	PASI-I

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SAMPLE ANALYTE COUNT

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	MTM	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904023	**SWW-30**	EPA 9056	ADM	1	PASI-I
		EPA 6010	ABH	4	PASI-I
		EPA 6020	MTM	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I
50372904024	**SWW-31**	EPA 9056	ADM	1	PASI-I
		EPA 6010	ABH	4	PASI-I
		EPA 6020	MTM	4	PASI-I
		EPA 7470	EAE	1	PASI-I
		SM 2540C	SL	1	PASI-I
		EPA 9038	STS	1	PASI-I
		SM 4500-Cl-E	ZM	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372904001	**SWW-5**					
EPA 9056	Fluoride	0.14	mg/L	0.10	05/15/24 13:19	
EPA 6010	Sodium, Dissolved	33.5	mg/L	5.0	05/17/24 03:26	
EPA 6020	Boron, Dissolved	13.4	mg/L	6.0	05/15/24 09:08	N2
SM 2540C	Total Dissolved Solids	1940	mg/L	20.0	05/14/24 10:24	
EPA 9038	Sulfate	509	mg/L	250	05/14/24 12:53	
SM 4500-Cl-E	Chloride	50.0	mg/L	10.0	05/19/24 13:09	
50372904002	**SWW-6**					
EPA 9056	Fluoride	0.34	mg/L	0.10	05/15/24 13:53	
EPA 6010	Barium, Dissolved	0.45	mg/L	0.050	05/17/24 03:35	
EPA 6010	Sodium, Dissolved	119	mg/L	5.0	05/17/24 03:35	
EPA 6020	Boron, Dissolved	0.29	mg/L	0.20	05/15/24 09:11	N2
SM 2540C	Total Dissolved Solids	508	mg/L	10.0	05/14/24 10:24	
50372904003	**SWW-14**					
EPA 9056	Fluoride	0.29	mg/L	0.10	05/15/24 15:01	
EPA 6010	Barium, Dissolved	0.26	mg/L	0.050	05/17/24 03:40	
EPA 6010	Sodium, Dissolved	80.2	mg/L	5.0	05/17/24 03:40	
EPA 6020	Boron, Dissolved	0.52	mg/L	0.20	05/15/24 09:15	N2
SM 2540C	Total Dissolved Solids	812	mg/L	20.0	05/14/24 10:25	
EPA 9038	Sulfate	231	mg/L	125	05/14/24 13:12	
SM 4500-Cl-E	Chloride	72.5	mg/L	10.0	05/19/24 13:12	
50372904004	**SWW-15**					
EPA 9056	Fluoride	0.19	mg/L	0.10	05/15/24 15:34	
EPA 6010	Sodium, Dissolved	12.1	mg/L	5.0	05/17/24 03:42	
EPA 6020	Selenium, Dissolved	0.0027	mg/L	0.0020	05/15/24 09:19	
SM 2540C	Total Dissolved Solids	291	mg/L	10.0	05/13/24 12:16	
EPA 9038	Sulfate	75.0	mg/L	50.0	05/14/24 13:12	
50372904005	**SWW-18R**					
EPA 9056	Fluoride	0.12	mg/L	0.10	05/15/24 16:08	
EPA 6010	Sodium, Dissolved	166	mg/L	5.0	05/17/24 03:43	
EPA 6020	Boron, Dissolved	4.9	mg/L	2.0	05/15/24 09:22	N2
SM 2540C	Total Dissolved Solids	2900	mg/L	40.0	05/15/24 08:05	
EPA 9038	Sulfate	781	mg/L	250	05/14/24 13:13	
SM 4500-Cl-E	Chloride	477	mg/L	100	05/19/24 13:14	
50372904006	**SWW-19**					
EPA 6010	Sodium, Dissolved	32.3	mg/L	5.0	05/17/24 03:45	
EPA 6020	Boron, Dissolved	1.4	mg/L	1.0	05/15/24 09:26	N2
EPA 6020	Selenium, Dissolved	0.010	mg/L	0.0020	05/15/24 12:22	
SM 2540C	Total Dissolved Solids	708	mg/L	10.0	05/15/24 08:05	
EPA 9038	Sulfate	252	mg/L	125	05/14/24 13:13	
SM 4500-Cl-E	Chloride	31.7	mg/L	10.0	05/19/24 16:44	
50372904007	**SWW-20**					
EPA 9056	Fluoride	0.13	mg/L	0.10	05/15/24 19:13	
EPA 6010	Barium, Dissolved	0.069	mg/L	0.050	05/17/24 03:47	
EPA 6010	Sodium, Dissolved	42.2	mg/L	5.0	05/17/24 03:47	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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SUMMARY OF DETECTION

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372904007	**SWW-20**					
EPA 6020	Boron, Dissolved	1.1	mg/L	0.20	05/15/24 09:30	N2
SM 2540C	Total Dissolved Solids	1070	mg/L	20.0	05/13/24 12:16	
EPA 9038	Sulfate	573	mg/L	250	05/14/24 13:26	
EPA 9038	Sulfate	260	mg/L	125	06/14/24 16:29	H1
SM 4500-Cl-E	Chloride	225	mg/L	50.0	05/19/24 13:19	
50372904008	**SWW-21**					
EPA 9056	Fluoride	0.15	mg/L	0.10	05/15/24 19:47	
EPA 6010	Sodium, Dissolved	146	mg/L	5.0	05/17/24 03:49	
EPA 6020	Boron, Dissolved	13.2	mg/L	8.0	05/15/24 09:34	N2
EPA 7470	Mercury, Dissolved	0.00040	mg/L	0.00020	05/16/24 07:58	
SM 2540C	Total Dissolved Solids	2320	mg/L	40.0	05/14/24 10:25	
EPA 9038	Sulfate	531	mg/L	250	05/14/24 13:26	
SM 4500-Cl-E	Chloride	426	mg/L	100	05/19/24 13:20	
50372904009	**SWW-22**					
EPA 9056	Fluoride	0.10	mg/L	0.10	05/15/24 20:21	
EPA 6010	Sodium, Dissolved	71.9	mg/L	5.0	05/17/24 03:50	
EPA 6020	Boron, Dissolved	10.3	mg/L	4.0	05/15/24 09:45	N2
SM 2540C	Total Dissolved Solids	2260	mg/L	40.0	05/14/24 10:25	
EPA 9038	Sulfate	415	mg/L	250	05/14/24 13:27	
SM 4500-Cl-E	Chloride	359	mg/L	100	05/19/24 13:21	
50372904010	**SWW-23**					
EPA 9056	Fluoride	0.14	mg/L	0.10	05/15/24 20:54	
EPA 6010	Sodium, Dissolved	91.0	mg/L	5.0	05/17/24 03:52	
EPA 6020	Boron, Dissolved	15.6	mg/L	10.0	05/15/24 09:48	N2
SM 2540C	Total Dissolved Solids	1720	mg/L	20.0	05/13/24 12:16	
EPA 9038	Sulfate	279	mg/L	250	05/14/24 13:29	
SM 4500-Cl-E	Chloride	221	mg/L	100	05/19/24 13:22	
50372904011	**SWW-24**					
EPA 9056	Fluoride	0.20	mg/L	0.10	05/15/24 21:45	
EPA 6010	Barium, Dissolved	0.067	mg/L	0.050	05/17/24 03:54	
EPA 6010	Sodium, Dissolved	21.2	mg/L	5.0	05/17/24 03:54	
EPA 6020	Boron, Dissolved	0.53	mg/L	0.20	05/15/24 10:12	N2
EPA 6020	Selenium, Dissolved	0.0029	mg/L	0.0020	05/15/24 12:55	
SM 2540C	Total Dissolved Solids	755	mg/L	10.0	05/13/24 12:19	
EPA 9038	Sulfate	166	mg/L	50.0	05/14/24 13:29	
SM 4500-Cl-E	Chloride	88.1	mg/L	10.0	05/19/24 16:45	
50372904012	**SWW-25R**					
EPA 6010	Sodium, Dissolved	127	mg/L	5.0	05/17/24 03:56	
EPA 6020	Boron, Dissolved	4.9	mg/L	2.0	05/15/24 10:01	N2
SM 2540C	Total Dissolved Solids	1650	mg/L	20.0	05/13/24 12:19	
EPA 9038	Sulfate	451	mg/L	250	05/14/24 13:30	
SM 4500-Cl-E	Chloride	250	mg/L	100	05/19/24 13:25	
50372904013	**SWW-26**					
EPA 9056	Fluoride	0.14	mg/L	0.10	05/15/24 22:52	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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SUMMARY OF DETECTION

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372904013	**SWW-26**					
EPA 6010	Barium, Dissolved	0.080	mg/L	0.050	05/17/24 04:01	
EPA 6010	Sodium, Dissolved	21.3	mg/L	5.0	05/17/24 04:01	
EPA 6020	Boron, Dissolved	0.34	mg/L	0.20	05/15/24 10:04	N2
SM 2540C	Total Dissolved Solids	880	mg/L	10.0	05/14/24 10:25	
EPA 9038	Sulfate	360	mg/L	125	05/14/24 13:45	
SM 4500-Cl-E	Chloride	49.7	mg/L	10.0	05/19/24 13:26	
50372904014	**SWW-27**					
EPA 9056	Fluoride	0.21	mg/L	0.10	05/15/24 23:26	
EPA 6010	Barium, Dissolved	0.15	mg/L	0.050	05/17/24 04:03	
EPA 6010	Sodium, Dissolved	9.1	mg/L	5.0	05/17/24 04:03	
SM 2540C	Total Dissolved Solids	529	mg/L	10.0	05/14/24 10:25	
EPA 9038	Sulfate	118	mg/L	50.0	05/14/24 13:45	
SM 4500-Cl-E	Chloride	12.7	mg/L	10.0	05/19/24 13:27	
50372904015	**SWW-28**					
EPA 9056	Fluoride	0.77	mg/L	0.10	05/16/24 00:00	
EPA 6010	Barium, Dissolved	0.23	mg/L	0.050	05/17/24 04:04	
EPA 6010	Sodium, Dissolved	127	mg/L	5.0	05/17/24 04:04	
EPA 6020	Arsenic, Dissolved	0.016	mg/L	0.0010	05/15/24 10:15	
EPA 6020	Boron, Dissolved	0.42	mg/L	0.20	05/15/24 10:56	N2
SM 2540C	Total Dissolved Solids	506	mg/L	10.0	05/14/24 10:26	
50372904016	**SWW-2B-1**					
EPA 9056	Fluoride	0.21	mg/L	0.10	05/16/24 01:07	
EPA 6010	Sodium, Dissolved	23.7	mg/L	5.0	05/17/24 04:06	
EPA 6020	Boron, Dissolved	0.29	mg/L	0.10	05/15/24 10:52	N2
SM 2540C	Total Dissolved Solids	900	mg/L	20.0	05/14/24 10:26	
EPA 9038	Sulfate	317	mg/L	250	05/14/24 13:48	
SM 4500-Cl-E	Chloride	66.1	mg/L	10.0	05/19/24 13:31	
50372904017	**SWW-2B-2**					
EPA 9056	Fluoride	0.27	mg/L	0.10	05/16/24 01:41	
EPA 6010	Barium, Dissolved	0.11	mg/L	0.050	05/17/24 04:08	
EPA 6010	Sodium, Dissolved	16.6	mg/L	5.0	05/17/24 04:08	
SM 2540C	Total Dissolved Solids	624	mg/L	10.0	05/13/24 12:19	
EPA 9038	Sulfate	28.2	mg/L	10.0	05/14/24 13:56	
50372904018	**SWW-2B-3**					
EPA 9056	Fluoride	0.25	mg/L	0.10	05/16/24 02:15	
EPA 6010	Barium, Dissolved	0.067	mg/L	0.050	05/17/24 04:09	
EPA 6010	Sodium, Dissolved	41.1	mg/L	5.0	05/17/24 04:09	
SM 2540C	Total Dissolved Solids	468	mg/L	10.0	05/13/24 12:20	
EPA 9038	Sulfate	60.1	mg/L	50.0	05/14/24 13:56	
SM 4500-Cl-E	Chloride	11.2	mg/L	10.0	05/19/24 13:33	
50372904019	**SWW-2B-4**					
EPA 9056	Fluoride	0.15	mg/L	0.10	05/16/24 02:48	
EPA 6010	Barium, Dissolved	0.087	mg/L	0.050	05/17/24 04:11	
EPA 6010	Sodium, Dissolved	13.0	mg/L	5.0	05/17/24 04:11	

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50372904019	**SWW-2B-4**					
EPA 6020	Boron, Dissolved	0.045	mg/L	0.020	05/14/24 23:51	N2
SM 2540C	Total Dissolved Solids	448	mg/L	10.0	05/13/24 12:20	
EPA 9038	Sulfate	99.6	mg/L	50.0	05/14/24 13:58	
SM 4500-Cl-E	Chloride	30.4	mg/L	10.0	05/19/24 13:34	
50372904020	**Trip Blank**					
SM 2540C	Total Dissolved Solids	14	mg/L	10.0	05/14/24 10:27	PL
50372904021	**DUP-1**					
EPA 9056	Fluoride	0.25	mg/L	0.10	05/16/24 06:11	
EPA 6010	Barium, Dissolved	0.064	mg/L	0.050	05/17/24 04:13	
EPA 6010	Sodium, Dissolved	42.8	mg/L	5.0	05/17/24 04:13	
SM 2540C	Total Dissolved Solids	491	mg/L	10.0	05/14/24 10:10	
EPA 9038	Sulfate	72.9	mg/L	25.0	05/14/24 16:01	
SM 4500-Cl-E	Chloride	12.3	mg/L	10.0	05/19/24 17:12	
50372904022	**DUP-2**					
EPA 9056	Fluoride	0.13	mg/L	0.10	05/16/24 06:44	
EPA 6010	Barium, Dissolved	0.066	mg/L	0.050	05/15/24 18:57	
EPA 6010	Sodium, Dissolved	41.0	mg/L	5.0	05/15/24 18:57	
EPA 6020	Boron, Dissolved	1.2	mg/L	0.40	05/15/24 21:49	N2
SM 2540C	Total Dissolved Solids	948	mg/L	20.0	05/14/24 10:10	
EPA 9038	Sulfate	276	mg/L	125	05/14/24 16:01	
EPA 9038	Sulfate	243	mg/L	125	06/14/24 16:30	H5
SM 4500-Cl-E	Chloride	227	mg/L	50.0	05/19/24 13:39	
50372904023	**SWW-30**					
EPA 9056	Fluoride	0.14	mg/L	0.10	05/16/24 07:18	
EPA 6010	Barium, Dissolved	0.057	mg/L	0.050	05/15/24 18:59	
EPA 6010	Sodium, Dissolved	18.8	mg/L	5.0	05/15/24 18:59	
EPA 6020	Boron, Dissolved	0.023	mg/L	0.020	05/15/24 00:11	N2
SM 2540C	Total Dissolved Solids	448	mg/L	10.0	05/15/24 08:05	
EPA 9038	Sulfate	34.4	mg/L	25.0	05/14/24 16:02	
SM 4500-Cl-E	Chloride	46.3	mg/L	10.0	05/19/24 13:40	
50372904024	**SWW-31**					
EPA 9056	Fluoride	0.17	mg/L	0.10	05/16/24 07:52	
EPA 6010	Sodium, Dissolved	10.2	mg/L	5.0	05/15/24 19:01	
EPA 6020	Boron, Dissolved	0.088	mg/L	0.020	05/15/24 00:15	N2
EPA 6020	Selenium, Dissolved	0.0024	mg/L	0.0020	05/15/24 00:15	
SM 2540C	Total Dissolved Solids	471	mg/L	10.0	05/15/24 08:05	
EPA 9038	Sulfate	119	mg/L	50.0	05/14/24 16:02	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-5 **Lab ID: 50372904001** Collected: 05/08/24 15:11 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.14**	mg/L	0.10	1		05/15/24 13:19	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:26	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:26	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:26	7440-47-3	
Sodium, Dissolved	**33.5**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:26	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:07	7440-38-2	
Boron, Dissolved	**13.4**	mg/L	6.0	300	05/13/24 17:19	05/15/24 09:08	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:07	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:07	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 10:01	05/15/24 17:27	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**1940**	mg/L	20.0	1		05/14/24 10:24		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**509**	mg/L	250	25		05/14/24 12:53	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**50.0**	mg/L	10.0	1		05/19/24 13:09	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-6 **Lab ID: 50372904002** Collected: 05/08/24 15:43 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.34**	mg/L	0.10	1		05/15/24 13:53	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.45**	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:35	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:35	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:35	7440-47-3	
Sodium, Dissolved	**119**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:35	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:11	7440-38-2	
Boron, Dissolved	**0.29**	mg/L	0.20	10	05/13/24 17:19	05/15/24 09:11	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:11	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:11	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 10:01	05/15/24 17:29	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**508**	mg/L	10.0	1		05/14/24 10:24		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	ND	mg/L	10.0	1		05/14/24 12:54	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	ND	mg/L	10.0	1		05/19/24 13:12	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-14 **Lab ID: 50372904003** Collected: 05/08/24 16:18 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.29**	mg/L	0.10	1		05/15/24 15:01	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.26**	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:40	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:40	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:40	7440-47-3	
Sodium, Dissolved	**80.2**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:40	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:15	7440-38-2	
Boron, Dissolved	**0.52**	mg/L	0.20	10	05/13/24 17:19	05/15/24 09:15	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:15	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:15	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 10:01	05/15/24 17:32	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**812**	mg/L	20.0	1		05/14/24 10:25		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**231**	mg/L	125	12.5		05/14/24 13:12	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**72.5**	mg/L	10.0	1		05/19/24 13:12	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-15 **Lab ID: 50372904004** Collected: 05/07/24 14:37 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.19**	mg/L	0.10	1		05/15/24 15:34	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:42	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:42	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:42	7440-47-3	
Sodium, Dissolved	**12.1**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:42	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 09:19	7440-38-2	
Boron, Dissolved	ND	mg/L	0.020	1	05/13/24 17:19	05/15/24 09:19	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 09:19	7439-92-1	
Selenium, Dissolved	**0.0027**	mg/L	0.0020	1	05/13/24 17:19	05/15/24 09:19	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 10:01	05/15/24 17:46	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**291**	mg/L	10.0	1		05/13/24 12:16		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**75.0**	mg/L	50.0	5		05/14/24 13:12	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	ND	mg/L	10.0	1		05/19/24 13:13	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-18R **Lab ID: 50372904005** Collected: 05/09/24 10:16 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.12**	mg/L	0.10	1		05/15/24 16:08	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:43	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:43	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:43	7440-47-3	
Sodium, Dissolved	**166**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:43	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:18	7440-38-2	
Boron, Dissolved	**4.9**	mg/L	2.0	100	05/13/24 17:19	05/15/24 09:22	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:18	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:18	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 10:01	05/15/24 17:49	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**2900**	mg/L	40.0	1		05/15/24 08:05		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**781**	mg/L	250	25		05/14/24 13:13	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**477**	mg/L	100	10		05/19/24 13:14	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-19 **Lab ID: 50372904006** Collected: 05/09/24 11:07 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	ND	mg/L	0.10	1		05/15/24 16:42	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:45	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:45	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:45	7440-47-3	
Sodium, Dissolved	**32.3**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:45	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:22	7440-38-2	
Boron, Dissolved	**1.4**	mg/L	1.0	50	05/13/24 17:19	05/15/24 09:26	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:22	7439-92-1	
Selenium, Dissolved	**0.010**	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:22	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 10:01	05/15/24 17:51	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**708**	mg/L	10.0	1		05/15/24 08:05		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**252**	mg/L	125	12.5		05/14/24 13:13	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**31.7**	mg/L	10.0	1		05/19/24 16:44	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-20 **Lab ID: 50372904007** Collected: 05/07/24 15:17 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.13**	mg/L	0.10	1		05/15/24 19:13	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.069**	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:47	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:47	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:47	7440-47-3	
Sodium, Dissolved	**42.2**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:47	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:33	7440-38-2	
Boron, Dissolved	**1.1**	mg/L	0.20	10	05/13/24 17:19	05/15/24 09:30	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:33	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:33	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 10:01	05/15/24 17:54	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**1070**	mg/L	20.0	1		05/13/24 12:16		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**573**	mg/L	250	25		05/14/24 13:26	14808-79-8	
Sulfate	**260**	mg/L	125	12.5		06/14/24 16:29	14808-79-8	H1
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**225**	mg/L	50.0	5		05/19/24 13:19	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-21 **Lab ID: 50372904008** Collected: 05/08/24 11:13 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.15**	mg/L	0.10	1		05/15/24 19:47	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:49	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:49	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:49	7440-47-3	
Sodium, Dissolved	**146**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:49	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:36	7440-38-2	
Boron, Dissolved	**13.2**	mg/L	8.0	400	05/13/24 17:19	05/15/24 09:34	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:36	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:36	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	**0.00040**	mg/L	0.00020	1	05/15/24 19:26	05/16/24 07:58	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**2320**	mg/L	40.0	1		05/14/24 10:25		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**531**	mg/L	250	25		05/14/24 13:26	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**426**	mg/L	100	10		05/19/24 13:20	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-22 **Lab ID: 50372904009** Collected: 05/08/24 11:58 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.10**	mg/L	0.10	1		05/15/24 20:21	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:50	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:50	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:50	7440-47-3	
Sodium, Dissolved	**71.9**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:50	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:40	7440-38-2	
Boron, Dissolved	**10.3**	mg/L	4.0	200	05/13/24 17:19	05/15/24 09:45	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:40	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:40	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 19:26	05/16/24 08:01	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**2260**	mg/L	40.0	1		05/14/24 10:25		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**415**	mg/L	250	25		05/14/24 13:27	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**359**	mg/L	100	10		05/19/24 13:21	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-23 **Lab ID: 50372904010** Collected: 05/07/24 14:00 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.14**	mg/L	0.10	1		05/15/24 20:54	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:52	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:52	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:52	7440-47-3	
Sodium, Dissolved	**91.0**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:52	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:44	7440-38-2	
Boron, Dissolved	**15.6**	mg/L	10.0	500	05/13/24 17:19	05/15/24 09:48	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:44	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:44	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 19:26	05/16/24 08:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**1720**	mg/L	20.0	1		05/13/24 12:16		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**279**	mg/L	250	25		05/14/24 13:29	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**221**	mg/L	100	10		05/19/24 13:22	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-24 **Lab ID: 50372904011** Collected: 05/07/24 13:22 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.20**	mg/L	0.10	1		05/15/24 21:45	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.067**	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:54	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:54	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:54	7440-47-3	
Sodium, Dissolved	**21.2**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:54	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:55	7440-38-2	
Boron, Dissolved	**0.53**	mg/L	0.20	10	05/13/24 17:19	05/15/24 10:12	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:55	7439-92-1	
Selenium, Dissolved	**0.0029**	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:55	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 19:26	05/16/24 08:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**755**	mg/L	10.0	1		05/13/24 12:19		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**166**	mg/L	50.0	5		05/14/24 13:29	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**88.1**	mg/L	10.0	1		05/19/24 16:45	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-25R **Lab ID: 50372904012** Collected: 05/07/24 12:40 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	ND	mg/L	0.10	1		05/15/24 22:19	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 03:56	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 03:56	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 03:56	7440-47-3	
Sodium, Dissolved	**127**	mg/L	5.0	1	05/16/24 20:30	05/17/24 03:56	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:58	7440-38-2	
Boron, Dissolved	**4.9**	mg/L	2.0	100	05/13/24 17:19	05/15/24 10:01	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 12:58	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 12:58	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/15/24 19:26	05/16/24 08:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**1650**	mg/L	20.0	1		05/13/24 12:19		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**451**	mg/L	250	25		05/14/24 13:30	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**250**	mg/L	100	10		05/19/24 13:25	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-26 **Lab ID: 50372904013** Collected: 05/08/24 12:47 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.14**	mg/L	0.10	1		05/15/24 22:52	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.080**	mg/L	0.050	1	05/16/24 20:30	05/17/24 04:01	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 04:01	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 04:01	7440-47-3	
Sodium, Dissolved	**21.3**	mg/L	5.0	1	05/16/24 20:30	05/17/24 04:01	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 13:02	7440-38-2	
Boron, Dissolved	**0.34**	mg/L	0.20	10	05/13/24 17:19	05/15/24 10:04	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 13:02	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 13:02	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 18:36	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**880**	mg/L	10.0	1		05/14/24 10:25		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**360**	mg/L	125	12.5		05/14/24 13:45	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**49.7**	mg/L	10.0	1		05/19/24 13:26	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-27 **Lab ID: 50372904014** Collected: 05/08/24 14:16 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.21**	mg/L	0.10	1		05/15/24 23:26	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.15**	mg/L	0.050	1	05/16/24 20:30	05/17/24 04:03	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 04:03	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 04:03	7440-47-3	
Sodium, Dissolved	**9.1**	mg/L	5.0	1	05/16/24 20:30	05/17/24 04:03	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 09:56	7440-38-2	
Boron, Dissolved	ND	mg/L	0.020	1	05/13/24 17:19	05/15/24 09:56	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 09:56	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 09:56	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 18:39	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**529**	mg/L	10.0	1		05/14/24 10:25		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**118**	mg/L	50.0	5		05/14/24 13:45	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**12.7**	mg/L	10.0	1		05/19/24 13:27	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-28 **Lab ID: 50372904015** Collected: 05/08/24 09:58 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.77**	mg/L	0.10	1		05/16/24 00:00	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.23**	mg/L	0.050	1	05/16/24 20:30	05/17/24 04:04	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 04:04	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 04:04	7440-47-3	
Sodium, Dissolved	**127**	mg/L	5.0	1	05/16/24 20:30	05/17/24 04:04	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	**0.016**	mg/L	0.0010	1	05/13/24 17:19	05/15/24 10:15	7440-38-2	
Boron, Dissolved	**0.42**	mg/L	0.20	10	05/13/24 17:19	05/15/24 10:56	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 10:15	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 10:15	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 18:41	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**506**	mg/L	10.0	1		05/14/24 10:26		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	ND	mg/L	10.0	1		05/14/24 13:47	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	ND	mg/L	10.0	1		05/19/24 13:28	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-2B-1 **Lab ID: 50372904016** Collected: 05/08/24 13:34 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.21**	mg/L	0.10	1		05/16/24 01:07	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/16/24 20:30	05/17/24 04:06	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 04:06	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 04:06	7440-47-3	
Sodium, Dissolved	**23.7**	mg/L	5.0	1	05/16/24 20:30	05/17/24 04:06	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 13:06	7440-38-2	
Boron, Dissolved	**0.29**	mg/L	0.10	5	05/13/24 17:19	05/15/24 10:52	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 13:06	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 13:06	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 18:44	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**900**	mg/L	20.0	1		05/14/24 10:26		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**317**	mg/L	250	25		05/14/24 13:48	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**66.1**	mg/L	10.0	1		05/19/24 13:31	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-2B-2 **Lab ID: 50372904017** Collected: 05/07/24 10:05 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.27**	mg/L	0.10	1		05/16/24 01:41	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.11**	mg/L	0.050	1	05/16/24 20:30	05/17/24 04:08	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 04:08	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 04:08	7440-47-3	
Sodium, Dissolved	**16.6**	mg/L	5.0	1	05/16/24 20:30	05/17/24 04:08	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/14/24 23:43	7440-38-2	
Boron, Dissolved	ND	mg/L	0.020	1	05/13/24 17:19	05/14/24 23:43	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/14/24 23:43	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/14/24 23:43	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 18:51	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**624**	mg/L	10.0	1		05/13/24 12:19		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**28.2**	mg/L	10.0	1		05/14/24 13:56	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	ND	mg/L	10.0	1		05/19/24 13:32	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-2B-3 **Lab ID: 50372904018** Collected: 05/07/24 11:03 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.25**	mg/L	0.10	1		05/16/24 02:15	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.067**	mg/L	0.050	1	05/16/24 20:30	05/17/24 04:09	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 04:09	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 04:09	7440-47-3	
Sodium, Dissolved	**41.1**	mg/L	5.0	1	05/16/24 20:30	05/17/24 04:09	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/14/24 23:47	7440-38-2	
Boron, Dissolved	ND	mg/L	0.020	1	05/13/24 17:19	05/14/24 23:47	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/14/24 23:47	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/14/24 23:47	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 18:53	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**468**	mg/L	10.0	1		05/13/24 12:20		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**60.1**	mg/L	50.0	5		05/14/24 13:56	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**11.2**	mg/L	10.0	1		05/19/24 13:33	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-2B-4 **Lab ID: 50372904019** Collected: 05/07/24 11:52 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.15**	mg/L	0.10	1		05/16/24 02:48	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.087**	mg/L	0.050	1	05/16/24 20:30	05/17/24 04:11	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 04:11	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 04:11	7440-47-3	
Sodium, Dissolved	**13.0**	mg/L	5.0	1	05/16/24 20:30	05/17/24 04:11	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/14/24 23:51	7440-38-2	
Boron, Dissolved	**0.045**	mg/L	0.020	1	05/13/24 17:19	05/14/24 23:51	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/14/24 23:51	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/14/24 23:51	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 18:56	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**448**	mg/L	10.0	1		05/13/24 12:20		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**99.6**	mg/L	50.0	5		05/14/24 13:58	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**30.4**	mg/L	10.0	1		05/19/24 13:34	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: Trip Blank **Lab ID: 50372904020** Collected: 05/08/24 08:00 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056							
	Pace Analytical Services - Indianapolis							
Fluoride	ND	mg/L	0.10	1		05/16/24 03:22	16984-48-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical Services - Indianapolis							
Barium	ND	ug/L	50.0	1	05/15/24 08:11	05/16/24 09:59	7440-39-3	
Cadmium	ND	ug/L	1.0	1	05/15/24 08:11	05/16/24 09:59	7440-43-9	
Chromium	ND	ug/L	20.0	1	05/15/24 08:11	05/16/24 09:59	7440-47-3	
Sodium	ND	ug/L	5000	1	05/15/24 08:11	05/16/24 09:59	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 200.2							
	Pace Analytical Services - Indianapolis							
Arsenic	ND	ug/L	1.0	1	05/13/24 17:19	05/14/24 23:03	7440-38-2	
Boron	ND	ug/L	20.0	1	05/13/24 17:19	05/14/24 23:03	7440-42-8	N2
Lead	ND	ug/L	1.0	1	05/13/24 17:19	05/14/24 23:03	7439-92-1	
Selenium	ND	ug/L	2.0	1	05/13/24 17:19	05/14/24 23:03	7782-49-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
	Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**14**	mg/L	10.0	1		05/14/24 10:27		PL
9038 Sulfate Water	Analytical Method: EPA 9038							
	Pace Analytical Services - Indianapolis							
Sulfate	ND	mg/L	10.0	1		05/14/24 13:59	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E							
	Pace Analytical Services - Indianapolis							
Chloride	ND	mg/L	10.0	1		05/19/24 13:35	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: DUP-1 **Lab ID: 50372904021** Collected: 05/08/24 08:00 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.25**	mg/L	0.10	1		05/16/24 06:11	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.064**	mg/L	0.050	1	05/16/24 20:30	05/17/24 04:13	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/16/24 20:30	05/17/24 04:13	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/16/24 20:30	05/17/24 04:13	7440-47-3	
Sodium, Dissolved	**42.8**	mg/L	5.0	1	05/16/24 20:30	05/17/24 04:13	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/14/24 23:55	7440-38-2	
Boron, Dissolved	ND	mg/L	0.020	1	05/13/24 17:19	05/14/24 23:55	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/14/24 23:55	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/14/24 23:55	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 18:58	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**491**	mg/L	10.0	1		05/14/24 10:10		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**72.9**	mg/L	25.0	2.5		05/14/24 16:01	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**12.3**	mg/L	10.0	1		05/19/24 17:12	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: DUP-2 **Lab ID: 50372904022** Collected: 05/08/24 08:00 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.13**	mg/L	0.10	1		05/16/24 06:44	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.066**	mg/L	0.050	1	05/15/24 08:32	05/15/24 18:57	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/15/24 08:32	05/15/24 18:57	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/15/24 08:32	05/15/24 18:57	7440-47-3	
Sodium, Dissolved	**41.0**	mg/L	5.0	1	05/15/24 08:32	05/15/24 18:57	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 00:07	7440-38-2	
Boron, Dissolved	**1.2**	mg/L	0.40	20	05/13/24 17:19	05/15/24 21:49	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 00:07	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 00:07	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 19:01	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**948**	mg/L	20.0	1		05/14/24 10:10		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**276**	mg/L	125	12.5		05/14/24 16:01	14808-79-8	
Sulfate	**243**	mg/L	125	12.5		06/14/24 16:30	14808-79-8	H5
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**227**	mg/L	50.0	5		05/19/24 13:39	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-30 **Lab ID: 50372904023** Collected: 05/09/24 12:11 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.14**	mg/L	0.10	1		05/16/24 07:18	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	**0.057**	mg/L	0.050	1	05/15/24 08:32	05/15/24 18:59	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/15/24 08:32	05/15/24 18:59	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/15/24 08:32	05/15/24 18:59	7440-47-3	
Sodium, Dissolved	**18.8**	mg/L	5.0	1	05/15/24 08:32	05/15/24 18:59	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 00:11	7440-38-2	
Boron, Dissolved	**0.023**	mg/L	0.020	1	05/13/24 17:19	05/15/24 00:11	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 00:11	7439-92-1	
Selenium, Dissolved	ND	mg/L	0.0020	1	05/13/24 17:19	05/15/24 00:11	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 19:03	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**448**	mg/L	10.0	1		05/15/24 08:05		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**34.4**	mg/L	25.0	2.5		05/14/24 16:02	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	**46.3**	mg/L	10.0	1		05/19/24 13:40	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Merom Area 1&2
Pace Project No.: 50372904

Sample: SWW-31 **Lab ID: 50372904024** Collected: 05/09/24 13:03 Received: 05/10/24 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Fluoride	**0.17**	mg/L	0.10	1		05/16/24 07:52	16984-48-8	
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis							
Barium, Dissolved	ND	mg/L	0.050	1	05/15/24 08:32	05/15/24 19:01	7440-39-3	
Cadmium, Dissolved	ND	mg/L	0.0010	1	05/15/24 08:32	05/15/24 19:01	7440-43-9	
Chromium, Dissolved	ND	mg/L	0.020	1	05/15/24 08:32	05/15/24 19:01	7440-47-3	
Sodium, Dissolved	**10.2**	mg/L	5.0	1	05/15/24 08:32	05/15/24 19:01	7440-23-5	
6020 MET ICPMS, Dissolved	Analytical Method: EPA 6020 Preparation Method: EPA 200.2 Pace Analytical Services - Indianapolis							
Arsenic, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 00:15	7440-38-2	
Boron, Dissolved	**0.088**	mg/L	0.020	1	05/13/24 17:19	05/15/24 00:15	7440-42-8	N2
Lead, Dissolved	ND	mg/L	0.0010	1	05/13/24 17:19	05/15/24 00:15	7439-92-1	
Selenium, Dissolved	**0.0024**	mg/L	0.0020	1	05/13/24 17:19	05/15/24 00:15	7782-49-2	
7470 Mercury, Dissolved	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Pace Analytical Services - Indianapolis							
Mercury, Dissolved	ND	mg/L	0.00020	1	05/17/24 10:04	05/19/24 19:06	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis							
Total Dissolved Solids	**471**	mg/L	10.0	1		05/15/24 08:05		
9038 Sulfate Water	Analytical Method: EPA 9038 Pace Analytical Services - Indianapolis							
Sulfate	**119**	mg/L	50.0	5		05/14/24 16:02	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E Pace Analytical Services - Indianapolis							
Chloride	ND	mg/L	10.0	1		05/19/24 13:46	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789881
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904020

METHOD BLANK: 3613987
Matrix: Water
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	05/15/24 17:15	

LABORATORY CONTROL SAMPLE: 3613988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	1	0.98	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613991 3613992

Parameter	Units	50372904004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.19	1	1	1.2	1.2	101	101	80-120	0	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789892
QC Batch Method: EPA 9056
Analysis Method: EPA 9056
Analysis Description: 9056 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904021, 50372904022, 50372904023, 50372904024

METHOD BLANK: 3614047 Matrix: Water
Associated Lab Samples: 50372904021, 50372904022, 50372904023, 50372904024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	05/16/24 05:37	

LABORATORY CONTROL SAMPLE: 3614048

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614049 3614050

Parameter	Units	50372732002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	1.3	1	1	2.3	2.3	98	99	80-120	0	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789591
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007

METHOD BLANK: 3612927 Matrix: Water
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	05/15/24 16:45	

LABORATORY CONTROL SAMPLE: 3612928

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	0.005	0.0054	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3612929 3612930

Parameter	Units	50372904003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	0.005	0.005	0.0051	0.0050	101	101	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 790069
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904008, 50372904009, 50372904010, 50372904011, 50372904012

METHOD BLANK: 3614860 Matrix: Water
Associated Lab Samples: 50372904008, 50372904009, 50372904010, 50372904011, 50372904012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	05/16/24 07:53	

LABORATORY CONTROL SAMPLE: 3614861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	0.005	0.0050	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614862 3614863

Parameter	Units	50372904009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	0.005	0.005	0.0049	0.0051	98	101	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 790070
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904021, 50372904022, 50372904023, 50372904024

METHOD BLANK: 3614864 Matrix: Water
Associated Lab Samples: 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904021, 50372904022, 50372904023, 50372904024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	05/19/24 18:31	

LABORATORY CONTROL SAMPLE: 3614865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	0.005	0.0047	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614866 3614867

Parameter	Units	50372470001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury, Dissolved	mg/L	ND	0.005	0.005	0.0047	0.0050	93	99	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789923
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50372904020

METHOD BLANK: 3614257 Matrix: Water
Associated Lab Samples: 50372904020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	ug/L	ND	50.0	05/16/24 09:30	
Cadmium	ug/L	ND	1.0	05/16/24 09:30	
Chromium	ug/L	ND	20.0	05/16/24 09:30	
Sodium	ug/L	ND	5000	05/16/24 09:30	

LABORATORY CONTROL SAMPLE: 3614258

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	1010	101	80-120	
Cadmium	ug/L	1000	1000	100	80-120	
Chromium	ug/L	1000	1050	105	80-120	
Sodium	ug/L	10000	10200	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614259 3614260

Parameter	Units	50372790001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	ug/L	853	1000	1000	1880	1840	103	98	75-125	3	20	
Cadmium	ug/L	ND	1000	1000	1040	1020	104	102	75-125	2	20	
Chromium	ug/L	ND	1000	1000	1030	1010	103	101	75-125	2	20	
Sodium	ug/L	1440000	10000	10000	1450000	1410000	103	-312	75-125	3	20	E

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789958
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904021

METHOD BLANK: 3614489 Matrix: Water
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium, Dissolved	mg/L	ND	0.050	05/17/24 03:23	
Cadmium, Dissolved	mg/L	ND	0.0010	05/17/24 03:23	
Chromium, Dissolved	mg/L	ND	0.020	05/17/24 03:23	
Sodium, Dissolved	mg/L	ND	5.0	05/17/24 03:23	

LABORATORY CONTROL SAMPLE: 3614490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium, Dissolved	mg/L	1	1.0	103	80-120	
Cadmium, Dissolved	mg/L	1	1.0	100	80-120	
Chromium, Dissolved	mg/L	1	1.0	103	80-120	
Sodium, Dissolved	mg/L	10	10.2	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614491 3614492

Parameter	Units	50372904001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium, Dissolved	mg/L	ND	1	1	1.0	1.0	101	101	75-125	0	20	
Cadmium, Dissolved	mg/L	ND	1	1	1.0	1.0	101	101	75-125	0	20	
Chromium, Dissolved	mg/L	ND	1	1	1.0	1.0	100	101	75-125	0	20	
Sodium, Dissolved	mg/L	33.5	10	10	42.6	42.9	92	94	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789959
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904022, 50372904023, 50372904024

METHOD BLANK: 3614493 Matrix: Water
Associated Lab Samples: 50372904022, 50372904023, 50372904024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium, Dissolved	mg/L	ND	0.050	05/15/24 18:50	
Cadmium, Dissolved	mg/L	ND	0.0010	05/15/24 18:50	
Chromium, Dissolved	mg/L	ND	0.020	05/15/24 18:50	
Sodium, Dissolved	mg/L	ND	5.0	05/15/24 18:50	

LABORATORY CONTROL SAMPLE: 3614494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium, Dissolved	mg/L	1	0.97	97	80-120	
Cadmium, Dissolved	mg/L	1	0.95	95	80-120	
Chromium, Dissolved	mg/L	1	0.99	99	80-120	
Sodium, Dissolved	mg/L	10	9.7	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3614495 3614496

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium, Dissolved	mg/L	ND	1	1	0.98	1.0	96	98	75-125	2	20	
Cadmium, Dissolved	mg/L	ND	1	1	0.95	0.97	95	97	75-125	2	20	
Chromium, Dissolved	mg/L	ND	1	1	0.98	1.0	98	100	75-125	1	20	
Sodium, Dissolved	mg/L	7590 ug/L	10	10	17.1	17.4	96	98	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789626
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50372904020

METHOD BLANK: 3613075 Matrix: Water
Associated Lab Samples: 50372904020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	1.0	05/14/24 22:55	
Boron	ug/L	ND	20.0	05/14/24 22:55	N2
Lead	ug/L	ND	1.0	05/14/24 22:55	
Selenium	ug/L	ND	2.0	05/14/24 22:55	

LABORATORY CONTROL SAMPLE: 3613076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	39.5	99	80-120	
Boron	ug/L	40	41.4	104	80-120	N2
Lead	ug/L	40	37.9	95	80-120	
Selenium	ug/L	40	39.9	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613077 3613078

Parameter	Units	50372608002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	8.6	40	40	50.0	48.9	103	101	75-125	2	20	
Boron	ug/L	189	40	40	224	216	86	65	75-125	4	20	CH,E, N2,P6
Lead	ug/L	ND	40	40	39.7	39.8	99	99	75-125	0	20	
Selenium	ug/L	ND	40	40	43.6	41.4	109	103	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789622
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016

METHOD BLANK: 3613040 Matrix: Water
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	mg/L	ND	0.0010	05/15/24 09:00	
Boron, Dissolved	mg/L	ND	0.020	05/15/24 09:00	N2
Lead, Dissolved	mg/L	ND	0.0010	05/15/24 09:00	
Selenium, Dissolved	mg/L	ND	0.0020	05/15/24 09:00	

LABORATORY CONTROL SAMPLE: 3613041

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	mg/L	0.04	0.040	99	80-120	
Boron, Dissolved	mg/L	0.04	0.040	99	80-120	N2
Lead, Dissolved	mg/L	0.04	0.042	104	80-120	
Selenium, Dissolved	mg/L	0.04	0.041	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613042 3613043

Parameter	Units	50372593002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	mg/L	ND	0.04	0.04	0.039	0.039	97	98	75-125	0	20	
Boron, Dissolved	mg/L	1070 ug/L	0.04	0.04	1.1	1.1	83	94	75-125	0	20	CH,E, N2
Lead, Dissolved	mg/L	ND	0.04	0.04	0.042	0.042	104	105	75-125	0	20	
Selenium, Dissolved	mg/L	2.9 ug/L	0.04	0.04	0.042	0.042	99	99	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789628
QC Batch Method: EPA 200.2
Analysis Method: EPA 6020
Analysis Description: 6020 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904017, 50372904018, 50372904019, 50372904021, 50372904022, 50372904023, 50372904024

METHOD BLANK: 3613085 Matrix: Water
Associated Lab Samples: 50372904017, 50372904018, 50372904019, 50372904021, 50372904022, 50372904023, 50372904024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	mg/L	ND	0.0010	05/14/24 23:27	
Boron, Dissolved	mg/L	ND	0.020	05/14/24 23:27	N2
Lead, Dissolved	mg/L	ND	0.0010	05/14/24 23:27	
Selenium, Dissolved	mg/L	ND	0.0020	05/14/24 23:27	

LABORATORY CONTROL SAMPLE: 3613086

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	mg/L	0.04	0.040	99	80-120	
Boron, Dissolved	mg/L	0.04	0.042	104	80-120	N2
Lead, Dissolved	mg/L	0.04	0.039	98	80-120	
Selenium, Dissolved	mg/L	0.04	0.040	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613087 3613088

Parameter	Units	50372568004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	mg/L	<1.0 ug/L	0.04	0.04	0.042	0.043	104	107	75-125	2	20	
Boron, Dissolved	mg/L	26.6 ug/L	0.04	0.04	0.068	0.069	103	106	75-125	1	20	CH,N2
Lead, Dissolved	mg/L	<1.0 ug/L	0.04	0.04	0.039	0.040	98	99	75-125	1	20	
Selenium, Dissolved	mg/L	<1.0 ug/L	0.04	0.04	0.040	0.042	99	103	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(317)228-3100

QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789492
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904004, 50372904007, 50372904010

METHOD BLANK: 3612527 Matrix: Water
Associated Lab Samples: 50372904004, 50372904007, 50372904010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	05/13/24 12:10	

LABORATORY CONTROL SAMPLE: 3612528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3612529

Parameter	Units	50372666001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3870000 ug/L	3930	2	10	

SAMPLE DUPLICATE: 3612530

Parameter	Units	50372904010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1720	1730	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789493
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904011, 50372904012, 50372904017, 50372904018, 50372904019

METHOD BLANK: 3612531 Matrix: Water
Associated Lab Samples: 50372904011, 50372904012, 50372904017, 50372904018, 50372904019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	05/13/24 12:18	

LABORATORY CONTROL SAMPLE: 3612532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3612533

Parameter	Units	50372558008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	107	115	7	10	

SAMPLE DUPLICATE: 3612534

Parameter	Units	50372568004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	105	101	4	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789725
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904008, 50372904009, 50372904013, 50372904014, 50372904015, 50372904016, 50372904020

METHOD BLANK: 3613459 Matrix: Water
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904008, 50372904009, 50372904013, 50372904014, 50372904015, 50372904016, 50372904020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	05/14/24 10:19	

LABORATORY CONTROL SAMPLE: 3613460

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	303	101	80-120	

SAMPLE DUPLICATE: 3613461

Parameter	Units	50372541001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	472	463	2	10	

SAMPLE DUPLICATE: 3613462

Parameter	Units	50372904016 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	900	888	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789726
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904021, 50372904022

METHOD BLANK: 3613463 Matrix: Water
Associated Lab Samples: 50372904021, 50372904022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	05/14/24 10:09	

LABORATORY CONTROL SAMPLE: 3613464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	298	99	80-120	

SAMPLE DUPLICATE: 3613465

Parameter	Units	50372904021 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	491	480	2	10	

SAMPLE DUPLICATE: 3613466

Parameter	Units	50372693005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	328	334	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(317)228-3100

QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 790005
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904005, 50372904006, 50372904023, 50372904024

METHOD BLANK: 3614674 Matrix: Water
Associated Lab Samples: 50372904005, 50372904006, 50372904023, 50372904024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	05/15/24 07:59	

LABORATORY CONTROL SAMPLE: 3614675

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	289	96	80-120	

SAMPLE DUPLICATE: 3614677

Parameter	Units	50372867004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	576	567	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789790
QC Batch Method: EPA 9038
Analysis Method: EPA 9038
Analysis Description: 9038 Sulfate Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904020

METHOD BLANK: 3613614
Matrix: Water
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	10.0	05/14/24 12:49	

LABORATORY CONTROL SAMPLE: 3613615

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.7	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613616 3613617

Parameter	Units	50372904009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	415	1000	1000	1810	1790	139	138	90-110	1	20	M3

MATRIX SPIKE SAMPLE: 3613618

Parameter	Units	50372904018 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	60.1	500	426	73	90-110	M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 789792
QC Batch Method: EPA 9038
Analysis Method: EPA 9038
Analysis Description: 9038 Sulfate Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904021, 50372904022, 50372904023, 50372904024

METHOD BLANK: 3613621 Matrix: Water
Associated Lab Samples: 50372904021, 50372904022, 50372904023, 50372904024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	10.0	05/14/24 15:59	

LABORATORY CONTROL SAMPLE: 3613622

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3613623 3613624

Parameter	Units	50372904024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	119	500	500	630	623	102	101	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 795897
QC Batch Method: EPA 9038
Analysis Method: EPA 9038
Analysis Description: 9038 Sulfate Water
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904007, 50372904022

METHOD BLANK: 3641858 Matrix: Water
Associated Lab Samples: 50372904007, 50372904022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	10.0	06/14/24 16:28	

LABORATORY CONTROL SAMPLE: 3641859

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	20.5	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641860 3641861

Parameter	Units	50372904022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	276	500	500	696	690	91	89	90-110	1	20	H5,M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 790781
QC Batch Method: SM 4500-Cl-E
Analysis Method: SM 4500-Cl-E
Analysis Description: 4500 Chloride
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904020

METHOD BLANK: 3618837
Matrix: Water
Associated Lab Samples: 50372904001, 50372904002, 50372904003, 50372904004, 50372904005, 50372904006, 50372904007, 50372904008, 50372904009, 50372904010, 50372904011, 50372904012, 50372904013, 50372904014, 50372904015, 50372904016, 50372904017, 50372904018, 50372904019, 50372904020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	10.0	05/19/24 13:07	

LABORATORY CONTROL SAMPLE: 3618838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.8	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618839 3618840

Parameter	Units	50372904001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	50.0	20	20	68.2	69.7	91	98	90-110	2	20	

MATRIX SPIKE SAMPLE: 3618841

Parameter	Units	50372904010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	221	200	441	110	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Merom Area 1&2
Pace Project No.: 50372904

QC Batch: 790783
QC Batch Method: SM 4500-Cl-E
Analysis Method: SM 4500-Cl-E
Analysis Description: 4500 Chloride
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50372904021, 50372904022, 50372904023, 50372904024

METHOD BLANK: 3618844 Matrix: Water
Associated Lab Samples: 50372904021, 50372904022, 50372904023, 50372904024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	10.0	05/19/24 13:36	

LABORATORY CONTROL SAMPLE: 3618845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.5	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3618846 3618847

Parameter	Units	50372904023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	46.3	20	20	67.4	67.0	105	103	90-110	1	20	

MATRIX SPIKE SAMPLE: 3618848

Parameter	Units	50372781002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1050 ug/L	20	23.2	111	90-110	M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALIFIERS

Project: Merom Area 1&2
Pace Project No.: 50372904

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

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H1	Analysis conducted outside the recognized method holding time.
H5	Reanalysis conducted in excess of EPA method holding time. Results confirm original analysis performed in hold 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.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
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: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372904001	**SWW-5**	EPA 9056	789881		
50372904002	**SWW-6**	EPA 9056	789881		
50372904003	**SWW-14**	EPA 9056	789881		
50372904004	**SWW-15**	EPA 9056	789881		
50372904005	**SWW-18R**	EPA 9056	789881		
50372904006	**SWW-19**	EPA 9056	789881		
50372904007	**SWW-20**	EPA 9056	789881		
50372904008	**SWW-21**	EPA 9056	789881		
50372904009	**SWW-22**	EPA 9056	789881		
50372904010	**SWW-23**	EPA 9056	789881		
50372904011	**SWW-24**	EPA 9056	789881		
50372904012	**SWW-25R**	EPA 9056	789881		
50372904013	**SWW-26**	EPA 9056	789881		
50372904014	**SWW-27**	EPA 9056	789881		
50372904015	**SWW-28**	EPA 9056	789881		
50372904016	**SWW-2B-1**	EPA 9056	789881		
50372904017	**SWW-2B-2**	EPA 9056	789881		
50372904018	**SWW-2B-3**	EPA 9056	789881		
50372904019	**SWW-2B-4**	EPA 9056	789881		
50372904020	**Trip Blank**	EPA 9056	789881		
50372904021	**DUP-1**	EPA 9056	789892		
50372904022	**DUP-2**	EPA 9056	789892		
50372904023	**SWW-30**	EPA 9056	789892		
50372904024	**SWW-31**	EPA 9056	789892		
50372904020	**Trip Blank**	EPA 3010	789923	EPA 6010	790302
50372904001	**SWW-5**	EPA 3010	789958	EPA 6010	790509
50372904002	**SWW-6**	EPA 3010	789958	EPA 6010	790509
50372904003	**SWW-14**	EPA 3010	789958	EPA 6010	790509
50372904004	**SWW-15**	EPA 3010	789958	EPA 6010	790509
50372904005	**SWW-18R**	EPA 3010	789958	EPA 6010	790509
50372904006	**SWW-19**	EPA 3010	789958	EPA 6010	790509
50372904007	**SWW-20**	EPA 3010	789958	EPA 6010	790509
50372904008	**SWW-21**	EPA 3010	789958	EPA 6010	790509
50372904009	**SWW-22**	EPA 3010	789958	EPA 6010	790509
50372904010	**SWW-23**	EPA 3010	789958	EPA 6010	790509
50372904011	**SWW-24**	EPA 3010	789958	EPA 6010	790509
50372904012	**SWW-25R**	EPA 3010	789958	EPA 6010	790509
50372904013	**SWW-26**	EPA 3010	789958	EPA 6010	790509
50372904014	**SWW-27**	EPA 3010	789958	EPA 6010	790509
50372904015	**SWW-28**	EPA 3010	789958	EPA 6010	790509
50372904016	**SWW-2B-1**	EPA 3010	789958	EPA 6010	790509
50372904017	**SWW-2B-2**	EPA 3010	789958	EPA 6010	790509
50372904018	**SWW-2B-3**	EPA 3010	789958	EPA 6010	790509
50372904019	**SWW-2B-4**	EPA 3010	789958	EPA 6010	790509
50372904021	**DUP-1**	EPA 3010	789958	EPA 6010	790509
50372904022	**DUP-2**	EPA 3010	789959	EPA 6010	790210
50372904023	**SWW-30**	EPA 3010	789959	EPA 6010	790210

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372904024	**SWW-31**	EPA 3010	789959	EPA 6010	790210
50372904020	**Trip Blank**	EPA 200.2	789626	EPA 6020	789714
50372904001	**SWW-5**	EPA 200.2	789622	EPA 6020	789712
50372904002	**SWW-6**	EPA 200.2	789622	EPA 6020	789712
50372904003	**SWW-14**	EPA 200.2	789622	EPA 6020	789712
50372904004	**SWW-15**	EPA 200.2	789622	EPA 6020	789712
50372904005	**SWW-18R**	EPA 200.2	789622	EPA 6020	789712
50372904006	**SWW-19**	EPA 200.2	789622	EPA 6020	789712
50372904007	**SWW-20**	EPA 200.2	789622	EPA 6020	789712
50372904008	**SWW-21**	EPA 200.2	789622	EPA 6020	789712
50372904009	**SWW-22**	EPA 200.2	789622	EPA 6020	789712
50372904010	**SWW-23**	EPA 200.2	789622	EPA 6020	789712
50372904011	**SWW-24**	EPA 200.2	789622	EPA 6020	789712
50372904012	**SWW-25R**	EPA 200.2	789622	EPA 6020	789712
50372904013	**SWW-26**	EPA 200.2	789622	EPA 6020	789712
50372904014	**SWW-27**	EPA 200.2	789622	EPA 6020	789712
50372904015	**SWW-28**	EPA 200.2	789622	EPA 6020	789712
50372904016	**SWW-2B-1**	EPA 200.2	789622	EPA 6020	789712
50372904017	**SWW-2B-2**	EPA 200.2	789628	EPA 6020	789715
50372904018	**SWW-2B-3**	EPA 200.2	789628	EPA 6020	789715
50372904019	**SWW-2B-4**	EPA 200.2	789628	EPA 6020	789715
50372904021	**DUP-1**	EPA 200.2	789628	EPA 6020	789715
50372904022	**DUP-2**	EPA 200.2	789628	EPA 6020	789715
50372904023	**SWW-30**	EPA 200.2	789628	EPA 6020	789715
50372904024	**SWW-31**	EPA 200.2	789628	EPA 6020	789715
50372904001	**SWW-5**	EPA 7470	789591	EPA 7470	790185
50372904002	**SWW-6**	EPA 7470	789591	EPA 7470	790185
50372904003	**SWW-14**	EPA 7470	789591	EPA 7470	790185
50372904004	**SWW-15**	EPA 7470	789591	EPA 7470	790185
50372904005	**SWW-18R**	EPA 7470	789591	EPA 7470	790185
50372904006	**SWW-19**	EPA 7470	789591	EPA 7470	790185
50372904007	**SWW-20**	EPA 7470	789591	EPA 7470	790185
50372904008	**SWW-21**	EPA 7470	790069	EPA 7470	790265
50372904009	**SWW-22**	EPA 7470	790069	EPA 7470	790265
50372904010	**SWW-23**	EPA 7470	790069	EPA 7470	790265
50372904011	**SWW-24**	EPA 7470	790069	EPA 7470	790265
50372904012	**SWW-25R**	EPA 7470	790069	EPA 7470	790265
50372904013	**SWW-26**	EPA 7470	790070	EPA 7470	790796
50372904014	**SWW-27**	EPA 7470	790070	EPA 7470	790796
50372904015	**SWW-28**	EPA 7470	790070	EPA 7470	790796
50372904016	**SWW-2B-1**	EPA 7470	790070	EPA 7470	790796
50372904017	**SWW-2B-2**	EPA 7470	790070	EPA 7470	790796
50372904018	**SWW-2B-3**	EPA 7470	790070	EPA 7470	790796
50372904019	**SWW-2B-4**	EPA 7470	790070	EPA 7470	790796
50372904021	**DUP-1**	EPA 7470	790070	EPA 7470	790796
50372904022	**DUP-2**	EPA 7470	790070	EPA 7470	790796

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372904023	**SWW-30**	EPA 7470	790070	EPA 7470	790796
50372904024	**SWW-31**	EPA 7470	790070	EPA 7470	790796
50372904001	**SWW-5**	SM 2540C	789725		
50372904002	**SWW-6**	SM 2540C	789725		
50372904003	**SWW-14**	SM 2540C	789725		
50372904004	**SWW-15**	SM 2540C	789492		
50372904005	**SWW-18R**	SM 2540C	790005		
50372904006	**SWW-19**	SM 2540C	790005		
50372904007	**SWW-20**	SM 2540C	789492		
50372904008	**SWW-21**	SM 2540C	789725		
50372904009	**SWW-22**	SM 2540C	789725		
50372904010	**SWW-23**	SM 2540C	789492		
50372904011	**SWW-24**	SM 2540C	789493		
50372904012	**SWW-25R**	SM 2540C	789493		
50372904013	**SWW-26**	SM 2540C	789725		
50372904014	**SWW-27**	SM 2540C	789725		
50372904015	**SWW-28**	SM 2540C	789725		
50372904016	**SWW-2B-1**	SM 2540C	789725		
50372904017	**SWW-2B-2**	SM 2540C	789493		
50372904018	**SWW-2B-3**	SM 2540C	789493		
50372904019	**SWW-2B-4**	SM 2540C	789493		
50372904020	**Trip Blank**	SM 2540C	789725		
50372904021	**DUP-1**	SM 2540C	789726		
50372904022	**DUP-2**	SM 2540C	789726		
50372904023	**SWW-30**	SM 2540C	790005		
50372904024	**SWW-31**	SM 2540C	790005		
50372904001	**SWW-5**	EPA 9038	789790		
50372904002	**SWW-6**	EPA 9038	789790		
50372904003	**SWW-14**	EPA 9038	789790		
50372904004	**SWW-15**	EPA 9038	789790		
50372904005	**SWW-18R**	EPA 9038	789790		
50372904006	**SWW-19**	EPA 9038	789790		
50372904007	**SWW-20**	EPA 9038	789790		
50372904007	**SWW-20**	EPA 9038	795897		
50372904008	**SWW-21**	EPA 9038	789790		
50372904009	**SWW-22**	EPA 9038	789790		
50372904010	**SWW-23**	EPA 9038	789790		
50372904011	**SWW-24**	EPA 9038	789790		
50372904012	**SWW-25R**	EPA 9038	789790		
50372904013	**SWW-26**	EPA 9038	789790		
50372904014	**SWW-27**	EPA 9038	789790		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Merom Area 1&2
Pace Project No.: 50372904

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50372904015	**SWW-28**	EPA 9038	789790		
50372904016	**SWW-2B-1**	EPA 9038	789790		
50372904017	**SWW-2B-2**	EPA 9038	789790		
50372904018	**SWW-2B-3**	EPA 9038	789790		
50372904019	**SWW-2B-4**	EPA 9038	789790		
50372904020	**Trip Blank**	EPA 9038	789790		
50372904021	**DUP-1**	EPA 9038	789792		
50372904022	**DUP-2**	EPA 9038	789792		
50372904022	**DUP-2**	EPA 9038	795897		
50372904023	**SWW-30**	EPA 9038	789792		
50372904024	**SWW-31**	EPA 9038	789792		
50372904001	**SWW-5**	SM 4500-Cl-E	790781		
50372904002	**SWW-6**	SM 4500-Cl-E	790781		
50372904003	**SWW-14**	SM 4500-Cl-E	790781		
50372904004	**SWW-15**	SM 4500-Cl-E	790781		
50372904005	**SWW-18R**	SM 4500-Cl-E	790781		
50372904006	**SWW-19**	SM 4500-Cl-E	790781		
50372904007	**SWW-20**	SM 4500-Cl-E	790781		
50372904008	**SWW-21**	SM 4500-Cl-E	790781		
50372904009	**SWW-22**	SM 4500-Cl-E	790781		
50372904010	**SWW-23**	SM 4500-Cl-E	790781		
50372904011	**SWW-24**	SM 4500-Cl-E	790781		
50372904012	**SWW-25R**	SM 4500-Cl-E	790781		
50372904013	**SWW-26**	SM 4500-Cl-E	790781		
50372904014	**SWW-27**	SM 4500-Cl-E	790781		
50372904015	**SWW-28**	SM 4500-Cl-E	790781		
50372904016	**SWW-2B-1**	SM 4500-Cl-E	790781		
50372904017	**SWW-2B-2**	SM 4500-Cl-E	790781		
50372904018	**SWW-2B-3**	SM 4500-Cl-E	790781		
50372904019	**SWW-2B-4**	SM 4500-Cl-E	790781		
50372904020	**Trip Blank**	SM 4500-Cl-E	790781		
50372904021	**DUP-1**	SM 4500-Cl-E	790783		
50372904022	**DUP-2**	SM 4500-Cl-E	790783		
50372904023	**SWW-30**	SM 4500-Cl-E	790783		
50372904024	**SWW-31**	SM 4500-Cl-E	790783		

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CHAIN-OF-CUSTODY / A[...]

The Chain-of-Custody is a LEGAL DOC[...]

WO# : 50372904

50372904

Page 1 Of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Slawa Bruder	Attention:	
Address:	7988 Centerpoint Drive	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	slawa.bruder@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	NONE Fax:	Project Name:	Merom Area 1&2	Pace Project Manager:	will.statz@pacelabs.com
Requested Due Date:		Project #:		Pace Profile #:	6303 / 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

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals, Field Filtered	Chloride, Fluoride, Sulfate	TDS	Residual Chlorine (Y/N)	
1	SWW-5	WT	G	5/8/24	1511				3	2		1							X	X	X		001
2	SWW-6	WT	G	5/8/24	1543				3	2		1							X	X	X		002
3	SWW-14	WT	G	5/8/24	1618				3	2		1							X	X	X		003
4	SWW-15	WT	G	5/7/24	1437				3	2		1							X	X	X		004
5	SWW-18R	WT	G	5/9/24	1016				3	2		1							X	X	X		005
6	SWW-19	WT	G	5/9/24	1107				3	2		1							X	X	X		006
7	SWW-20	WT	G	5/7/24	1517				3	2		1							X	X	X		007
8	SWW-21	WT	G	5/8/24	1113				3	2		1							X	X	X		008
9	SWW-22	WT	G	5/8/24	1158				3	2		1							X	X	X		009
10	SWW-23	WT	G	5/7/24	1400				3	2		1							X	X	X		010
11	SWW-24	WT	G	5/7/24	1322				3	2		1							X	X	X		011
12	SWW-25R	WT	G	5/7/24	1240				3	2		1							X	X	X		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Daniel Melvin / Atlas	5/10/24	1200	Marcus Winslow	5/10/24	1200	see slive	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dan Melvin

SIGNATURE of SAMPLER: [signature] DATE Signed: 5/10/24

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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 : 2 Of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Atlas Indianapolis	Report To:	Slawa Bruder	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	slawa.bruder@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	NONE Fax:	Project Name:	Merom Area 1&2	Pace Project Manager:	will.statz@pacelabs.com
Requested Due Date:		Project #:		Pace Profile #:	6303 / 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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals, Field Filtered	Chloride, Fluoride, Sulfate	TDS	Trip Blank-Metals, Total	Trip Blank-Wet Chem	Trip Blank-TDS	Residual Chlorine (Y/N)	
13	SWW-26	WT	G	5/8/24	1247				3	2		1							X	X	X					013
14	SWW-27	WT	G	5/8/24	1416				3	2		1							X	X	X					014
15	SWW-28	WT	G	5/8/24	0958				3	2		1							X	X	X					015
16	SWW-2B-1	WT	G	5/8/24	1334				3	2		1							X	X	X					016
17	SWW-2B-2	WT	G	5/7/24	1005				3	2		1							X	X	X					017
18	SWW-2B-3	WT	G	5/7/24	1103				3	2		1							X	X	X					018
19	SWW-2B-4	WT	G	5/7/24	1152				3	2		1							X	X	X					019
20																										
21	Trip Blank	WT	LAB GENERATED																			X	X	X		020
22	~~SD-1~~ DM	~~WT~~							~~3~~	~~2~~		~~1~~							~~X~~	~~X~~	~~X~~					
23	DUP-1	WT	G	-	-				3	2		1							X	X	X					021
24	DUP-2	WT	G	-	-				3	2		1							X	X	X					022

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Daniel Melvin / Atlas	5/10/24	1200	[signature]	5/10/24	1200	see scan	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: Dan Melvin

SIGNATURE of SAMPLER: [signature] DATE Signed: 5/10/24

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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:	
Company:	Atlas Indianapolis	Report To:	Slawa Bruder	Attention:	Accounts Payable - Paula Sedam
Address:	7988 Centerpoint Drive	Copy To:		Company Name:	Atlas Indianapolis
	Indianapolis, IN 46256			Address:	
Email:	slawa.bruder@oneatlas.com	Purchase Order #:		Pace Quote:	
Phone:	NONE Fax:	Project Name:	Merom Area 1&2	Pace Project Manager:	will.statz@pacelabs.com
Requested Due Date:		Project #:		Pace Profile #:	6303 / 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

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals, Field Filtered	Chloride, Fluoride, Sulfate	TDS	Residual Chlorine (Y/N)	
25	SWW-30	WT	G	5/9/24	1211				3	2		1							X	X	X		023
26	SWW-31	WT	G	5/9/24	1303				3	2		1							X	X	X		024
27																							
28																							
29																							
30																							
31																							
32																							
33																							
34																							
35																							
36																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Daniel Melchior / Atlas	5/10/24	1200	Marcus Windsor	5/10/24	1200	see scan	Y	N	Y

SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dan Melchior

SIGNATURE of SAMPLER: [signature]

DATE Signed: 5/10/24

F-IN-Q-290-rev.26, 30Apr2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 5/10/24 1938 -MDW

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):** 5/5.9 | 1.9/1.9 | | | **(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. **Was the PM notified of out of temp cooler?:** | |Yes ☐No
   Cooler temp should be above freezing to 6°C
8. **EZ Bottle Order?** | Yes | |No
   If yes but not on COC what is the EZ Bottle Order Number?:

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: The following sample points did not have Date or times on containers: 'SWW-6', 'SWW-14', 'SWW-26', 'SWW-2B-2' -MDW 5/10/24

COC PAGE 1 of 3

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		1							WT	✓			
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																		2		1							WT	✓			

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

COC PAGE 2 of 3

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		1							WT	✓			
2																		|		|							|				
3																		|		|							|				
4																		|		|							|				
5																		|		|							|				
6																		|		|							|				
7																		↓		↓								↓	↓			
8																																
9																	2		1									WT	✓			
10																																
11																		2		1								WT	✓			
12																		↓		↓								↓	↓			

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	glass
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DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
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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		
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OL:	Oil
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COC PAGE 3 of 3

Sample Container Count

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1																		2		1									4 ✓				
2																		6		6									6	2			
3																																	
4																																	
5																																	
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8																																	
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10																																	
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DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
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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		

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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 B: Field Groundwater Monitoring Forms and Low-Flow Test Reports

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s °F Partly Cloudy
Field Personnel	PWM	Date	5/8/24

Well

Well Name	SWW-5	Total Depth (ft)	18.82
		Datum Elevation (ft)	503.28
Construction Material	PVC	Depth to Water (ft)	5.22
Well Diameter (in.)	1"	Groundwater Elevation (ft MSL)	498.06
Datum:		Date/Time of Measurement	5/6/24 1435

Well Volume: (TD-DTW)*0.16 (2") = _____ Three Well Volumes = _____

Well Volume: (TD-DTW)*0.041 (1") = _____ Three Well Volumes = 1.67

Purge

Purge Method: Pump Purge Date 5/8/24

Purge Time	Start	Stop	Total
	1441	1509	28

Purge Volume: 1.5 gal

Calc. Purge Rate: 202 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1451	1454	1457	1500	1503	1506	1509
Temperature (°C)	15.53	15.07	15.01	15.34	15.22	15.11	15.48
pH (su)	6.48	6.48	6.49	6.47	6.48	6.48	6.49
Conductivity (mS/cm)	2.08	2.07	2.07	2.08	2.08	2.08	2.09
D.O. (mg/L)	0.38	0.27	0.22	0.19	0.16	0.14	0.14
ORP (mV)	-42.6	-99.2	-133.6	-168.1	-181.1	-184.4	-188.3
Water Level (DTW)	5.80	5.80	5.80	5.80	5.80	5.80	5.80

Sampling

Sampling Method	Pump	Sample Collection Date	5/8/24
Sampling Start Time	1511	Sampling Stop Time	1516

Visual Sample Condition:		Metals field filtered?	(Yes) No
Turbidity	Low	Inorganics sampling pump rate	200 ml/min
Color	Clear	VOC sampling pump rate	↓
Odor	None		

Notes

Weather Conditions: _____

Well Condition: _____

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa bruder	Weather	70s of Partly Cloudy
Field Personnel	DWM	Date	5/8/23

Well

Well Name	SWW-6	Total Depth (ft)	28.58
		Datum Elevation (ft)	503.35
Construction Material	PVC	Depth to Water (ft)	5.18
Well Diameter (in.)	1"	Groundwater Elevation (ft MSL)	498.17
Datum:		Date/Time of Measurement	5/6/24 1436

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes =

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes = 2.87

Purge

Purge Method: Pump Purge Date 5/8/24

Purge Time	Start	Stop	Total
	1518	1541	23

Purge Volume: 3.00

Calc. Purge Rate: -

Purge Water Observation: Clear

Field Parameters

	(A) 1	(A) 2	(A) 3	(B) 4	5	6	7
Time	1526	1529	1532	1541			
Temperature (°C)	15.82	15.58	15.46	16.33			
pH (su)	7.02	7.04	7.12	7.34			
Conductivity (mS/cm)	0.91	0.84	0.82	0.82			
D.O. (mg/L)	2.09	2.28	3.63	3.98			
ORP (mV)	-125.3	-95.2	-33.3	14.1			
Water Level (DTW)	12.11	12.39	12.71 (1)	N/A			

Sampling

Sampling Method Pump Sample Collection Date 5/8/24

Sampling Start Time 1543 Sampling Stop Time 1548

Visual Sample Condition:

Turbidity Low

Color Clear

Odor None

Metals field filtered? (Yes) No

Inorganics sampling pump rate 200 ml/min

VOC sampling pump rate ↓

Notes

Weather Conditions:

Well Condition:

(1)- Drawdown > 0.3', purge 3 vol and sample.

(A)- Initial Readings.

(B)- Final Reading collected during sampling.

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s °F Rain
Field Personnel	Dwn	Date	5/8/24

Well

Well Name	SWW-14	Total Depth (ft)	13.69
		Datum Elevation (ft)	487.71
Construction Material	PVC	Depth to Water (ft)	5.50
Well Diameter (in.)	1"	Groundwater Elevation (ft MSL)	482.21
Datum:		Date/Time of Measurement	5/6/24 1500

Well Volume: (TD-DTW)*0.16 (2") = _____ Three Well Volumes = _____

Well Volume: (TD-DTW)*0.041 (1") = _____ Three Well Volumes = 1.00 gal

Purge

Purge Method: Bailer Purge Date 5/6/24

Purge Time	Start	Stop	Total
	1500	1510	10

Purge Volume: 1.00 gal

Calc. Purge Rate: -

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1618 (1)						
Temperature (°C)	18.33						
pH (su)	7.07						
Conductivity (mS/cm)	1.20						
D.O. (mg/L)	4.43						
ORP (mV)	15.9						
Water Level (DTW)	N/A						

Sampling

Sampling Method	Pump	Sample Collection Date	5/8/24
Sampling Start Time	1618	Sampling Stop Time	1628

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity	Low	Inorganics sampling pump rate	250 ml/min
Color	Light Brown	VOC sampling pump rate	V
Odor	None		

Notes

Weather Conditions: _____

Well Condition: _____

(1) - Collect readings w/peristaltic pump and collect sample.

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Cloudy
Field Personnel	DWM	Date	5/7/24

Well

Well Name	SWW-15	Total Depth (ft)	12.00
		Datum Elevation (ft)	514.63
Construction Material	PVC	Depth to Water (ft)	5.07
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	509.56
Datum:		Date/Time of Measurement	5/6/24 1626

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 3.32 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Purge Purge Date 5/7/24

Purge Time	Start	Stop	Total
	1412	1435	23

Purge Volume: 1.5 gal

Calc. Purge Rate: 246 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1417	1420	1423	1426	1429	1432	1435
Temperature (°C)	19.08	19.62	20.02	19.53	19.28	19.24	19.16
pH (su)	6.41	6.40	6.42	6.44	6.44	6.43	6.41
Conductivity (mS/cm)	0.45	0.44	0.43	0.43	0.43	0.43	0.43
D.O. (mg/L)	5.48	5.60	5.64	5.66	5.72	5.70	5.72
ORP (mV)	137.9	137.9	136.2	134.9	134.3	134.3	135.0
Water Level (DTW)	5.45	5.46	5.47	5.48	5.48	5.49	5.50

Sampling

Sampling Method Pump Sample Collection Date 5/7/24

Sampling Start Time 1437 Sampling Stop Time 1447

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity Low Inorganics sampling pump rate 250 ml/min

Color Clear VOC sampling pump rate ↓

Odor None

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	60s °F Scattered Showers
Field Personnel	DWM	Date	5/9/24

Well

Well Name	SWW-18R	Total Depth (ft)	20.09
		Datum Elevation (ft)	515.47
Construction Material	PVC	Depth to Water (ft)	9.17
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	506.30
Datum:		Date/Time of Measurement	5/6/24 1527

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 5.24 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/9/24

Purge Time	Start	Stop	Total
	0946	1014	28

Purge Volume: 2.00 gal

Calc. Purge Rate: 270 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	0956	0959	1002	1005	1008	1011	1014
Temperature (°C)	15.42	15.39	15.42	15.42	15.45	15.37	15.39
pH (su)	6.60	6.60	6.59	6.60	6.60	6.61	6.61
Conductivity (mS/cm)	3.22	3.21	3.20	3.19	3.18	3.17	3.15
D.O. (mg/L)	0.91	0.76	0.67	0.61	0.55	0.53	0.51
ORP (mV)	371.5	379.5	387.1	396.5	399.0	408.1	416.5
Water Level (DTW)	10.25	10.25	10.25	10.25	10.25	10.25	10.25

Sampling

Sampling Method	Pump	Sample Collection Date	5/9/24
Sampling Start Time	1016	Sampling Stop Time	1026

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity Low Inorganics sampling pump rate 250 ml/min

Color Clear VOC sampling pump rate √

Odor None

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	60s°F Scattered Showers
Field Personnel	DWM	Date	5/9/24

Well

Well Name	SWW-19	Total Depth (ft)	14.41
		Datum Elevation (ft)	498.39
Construction Material	PVC	Depth to Water (ft)	6.81
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	491.58
Datum:		Date/Time of Measurement	5/6/24 1520

Well Volume: (TD-DTW)*0.16 (2") = ____ Three Well Volumes = 3.65 gal

Well Volume: (TD-DTW)*0.041 (1") = ____ Three Well Volumes = ____

Purge

Purge Method: Pump Purge Date 5/9/24

Purge Time	Start	Stop	Total
	1033	1104	31

Purge Volume: 2.00 gal

Calc. Purge Rate: 244

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1043	1046	1049	1050 (1)	1052 (1)	1055	1058
Temperature (°C)	16.08	16.32	16.52	16.58	16.61	16.20	16.10
pH (su)	6.39	6.41	6.43	6.43	6.44	6.44	6.44
Conductivity (mS/cm)	0.90	0.91	0.90	0.89	0.89	0.89	0.88
D.O. (mg/L)	1.33	1.05	0.77	0.65	0.60	0.47	0.40
ORP (mV)	291.2	286.9	288.5	284.1	281.8	271.2	257.4
Water Level (DTW)	7.38	7.38	7.38	7.38	7.38	7.38	7.38

Sampling

Sampling Method Pump Sample Collection Date 5/9/24

Sampling Start Time 1107 Sampling Stop Time 1117

Visual Sample Condition:

Turbidity Low

Color Clear

Odor None

Metals field filtered? (Yes) No

Inorganics sampling pump rate 250 ml/min

VOC sampling pump rate ↓

Notes

Weather Conditions:

Well Condition:

(1) - Aquatroll communication error, collects reading upon reestablishing connection.

Well Name SWW-19

Field Parameters (Extra Entries)										
	8	9								
Time	1101	1104								
Temperature (°C)	15.95	16.11								
pH (su)	6.42	6.41								
Conductivity (mS/cm)	0.88	0.86								
D.O. (mg/L)	0.37	0.36								
ORP (mV)	251.3	247.8								
Turbidity (NTU)	-	-								
Water Level (DTW)	7.38	7.38								

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s °F Cloudy
Field Personnel	Dwm	Date	5/7/24

Well

Well Name	SWW-20	Total Depth (ft)	21.11
		Datum Elevation (ft)	518.42
Construction Material	PVC	Depth to Water (ft)	7.44
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	510.98
Datum:		Date/Time of Measurement	5/6/24 1630

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 6.56 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/7/24

Purge Time	Start	Stop	Total
	1448	1515	27

Purge Volume: 2.50 gal

Calc. Purge Rate: 350 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7	8
Time	1454	1457	1500	1503	1506	1509	1512	1515
Temperature (°C)	16.87	16.64	16.68	16.65	16.49	16.45	16.48	16.61
pH (su)	6.11	6.12	6.11	6.11	6.11	6.09	6.09	6.11
Conductivity (mS/cm)	1.53	1.52	1.52	1.52	1.50	1.48	1.46	1.45
D.O. (mg/L)	0.53	0.44	0.42	0.40	0.42	0.52	0.62	0.67
ORP (mV)	90.6	100.1	108.2	114.6	120.5	126.7	131.9	135.0
Water Level (DTW)	8.15	8.15	8.15	8.15	8.15	8.15	8.15	8.15

Sampling

Sampling Method	Pump	Sample Collection Date	5/7/24
Sampling Start Time	1517	Sampling Stop Time	1527

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity Low Inorganics sampling pump rate 150 ml/min

Color Clear VOC sampling pump rate ↓

Odor None

Notes

Weather Conditions:

Well Condition:

DUP-2 collected from SWW-20

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s °F Partly Cloudy
Field Personnel	DWM	Date	5/8/24

Well

Well Name	SWW-21	Total Depth (ft)	22.79
		Datum Elevation (ft)	522.36
Construction Material	PVC	Depth to Water (ft)	10.03
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	512.33
Datum:		Date/Time of Measurement	5/6/24 1634

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 6.12 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/8/24

Purge Time	Start	Stop	Total
	1034	1111	37

Purge Volume: 3.50

Calc. Purge Rate: 358 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1044	1047	1050	1053	1056	1059	1102
Temperature (°C)	14.52	15.31	18.38	18.86	17.83	17.27	17.18
pH (su)	6.54	6.54	6.60	6.62	6.66	6.61	6.58
Conductivity (mS/cm)	2.86	2.84	2.86	2.86	2.85	2.85	2.85
D.O. (mg/L)	2.13	1.78	1.69	1.59	1.42	1.30	1.21
ORP (mV)	84.6	110.7	117.7	127.2	137.3	149.8	160.6
Water Level (DTW)	13.20	13.24	13.27	13.30	13.33	13.35	13.38

Sampling

Sampling Method Pump Sample Collection Date 5/8/24

Sampling Start Time 1113 Sampling Stop Time 1123

Visual Sample Condition:

Turbidity Low

Color Clear

Odor None

Metals field filtered? (Yes) No

Inorganics sampling pump rate 250 ml/min

VOC sampling pump rate ↓

Notes

Weather Conditions:

Well Condition:

Well Name SWW-21

Field Parameters (Extra Entries)										
	8	9	10							
Time	1105	1108	1111							
Temperature (°C)	17.16	17.28	17.30							
pH (su)	6.59	6.60	6.60							
Conductivity (mS/cm)	2.85	2.85	2.86							
D.O. (mg/L)	1.15	1.10	1.05							
ORP (mV)	168.3	172.3	178.2							
Turbidity (NTU)	-	-	-							
Water Level (DTW)	13.40	13.43	13.46							

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s of Partly Cloudy
Field Personnel	Dwm	Date	5/8/24

Well

Well Name	SWW-22	Total Depth (ft)	20.16
		Datum Elevation (ft)	522.98
Construction Material	PVC	Depth to Water (ft)	9.61
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	513.37
Datum:		Date/Time of Measurement	5/6/24 1638

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 5.06 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/8/24

Purge Time	Start	Stop	Total
	1128	1156	28

Purge Volume: 5.00 gal

Calc. Purge Rate: -

Purge Water Observation: Clear

Field Parameters

	(A) 1	(B) 2	3	4	5	6	7
Time	1133 (1)	1156					
Temperature (°C)	13.74	16.46					
pH (su)	6.57	6.48					
Conductivity (mS/cm)	2.39	2.60					
D.O. (mg/L)	7.54	1.18					
ORP (mV)	200.1	195.6					
Water Level (DTW)	N/A	N/A					

Sampling

Sampling Method	Pump	Sample Collection Date	5/8/24
Sampling Start Time	1158	Sampling Stop Time	1208

Visual Sample Condition:

Metals field filtered? (Yes) No

Turbidity	Low	Inorganics sampling pump rate	250 ml/min
Color	Clear	VOC sampling pump rate	↓
Odor	None		

Notes

Weather Conditions:

Well Condition:

(1)- Water Level below pump line. Purge 3 vol, collect field parameters, collect sample.

(A)- Initial reading.

(B)- Readings collected during sample collection.

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Cloudy
Field Personnel	DWM	Date	5/7/24

Well

Well Name	SWW-23	Total Depth (ft)	21.86
		Datum Elevation (ft)	523.22
Construction Material	PVC	Depth to Water (ft)	5.63
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	517.59
Datum:		Date/Time of Measurement	5/6/24 1622

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 7.74 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes = 1

Purge

Purge Method: Pump Purge Date 5/7/24

Purge Time	Start	Stop	Total
	1334	1357	23

Purge Volume: 3.00 gal

Calc. Purge Rate: 493 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1339	1342	1345	1348	1351	1354	1357
Temperature (°C)	14.71	14.82	14.82	14.91	15.00	15.22	15.27
pH (su)	6.53	6.54	6.55	6.56	6.56	6.57	6.59
Conductivity (mS/cm)	2.10	2.06	2.03	2.01	2.00	1.98	1.97
D.O. (mg/L)	2.73	2.67	2.53	2.44	2.36	2.30	2.24
ORP (mV)	121.6	121.0	120.5	120.1	119.8	120.0	119.2
Water Level (DTW)	5.95	5.95	5.95	5.95	5.95	5.95	5.95

Sampling

Sampling Method	Pump	Sample Collection Date	5/7/24
Sampling Start Time	1400	Sampling Stop Time	1410

Visual Sample Condition:

Turbidity: Low

Color: Clear

Odor: None

Metals field filtered? (Yes) No

Inorganics sampling pump rate: 250 ml/min

VOC sampling pump rate: V

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Cloudy
Field Personnel	DWM	Date	5/7/24

Well

Well Name	SWW-24	Total Depth (ft)	19.91
		Datum Elevation (ft)	523.45
Construction Material	PVC	Depth to Water (ft)	6.40
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	517.05
Datum:		Date/Time of Measurement	5/6/24 1618

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 6.48 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/7/24

Purge Time	Start	Stop	Total
	1252	1320	28

Purge Volume: 2.00 gal

Calc. Purge Rate: 270 ml/min

Purge Water Observation:

Field Parameters

	1	2	3	4	5	6	7
Time	1302	1305	1308	1311	1314	1317	1320
Temperature (°C)	16.64	16.82	16.95	17.02	17.00	16.97	16.76
pH (su)	6.61	6.62	6.61	6.63	6.64	6.63	6.63
Conductivity (mS/cm)	1.11	1.11	1.11	1.10	1.11	1.10	1.10
D.O. (mg/L)	6.91	6.84	6.73	6.66	6.67	6.62	6.64
ORP (mV)	140.9	137.6	135.7	132.8	130.9	130.1	129.3
Water Level (DTW)	6.90	6.91	6.91	6.91	6.91	6.91	6.91

Sampling

Sampling Method	Pump	Sample Collection Date	5/7/24
Sampling Start Time	1322	Sampling Stop Time	1332

Visual Sample Condition:		Metals field filtered?	(Yes) No
Turbidity	Low	Inorganics sampling pump rate	250 ml/min
Color	Clear	VOC sampling pump rate	↓
Odor	None		

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Area 1+2
Project Manager	Slawa Bruder	Weather	70s of Partly Cloudy
Field Personnel	DWM	Date	5/7/24

Well

Well Name	SWW-25R	Total Depth (ft)	29.00
		Datum Elevation (ft)	518.52
Construction Material	PVC	Depth to Water (ft)	7.70
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	510.82
Datum:	Top of PVC	Date/Time of Measurement	5/6/24 1611

Well Volume: (TD-DTW)*0.16 (2") =
Well Volume: (TD-DTW)*0.041 (1") =

Three Well Volumes = 10.22 gal
Three Well Volumes =

Purge

Purge Method: Pump
Purge Date 5/7/24

Purge Time	Start	Stop	Total
	1204	1238	34

Purge Volume: 3.0 gal
Calc. Purge Rate: 334

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1211	1214	1217	1220	1223	1226	1229
Temperature (°C)	14.43	16.38	19.81	21.00	21.64	21.92	18.68
pH (su)	6.43	6.41	6.51	6.59	6.59	6.59	6.61
Conductivity (mS/cm)	1.99	1.98	1.98	2.04	2.09	2.14	2.15
D.O. (mg/L)	0.35	0.30	0.44	0.62	0.82	0.94	0.53
ORP (mV)	99.4	103.2	101.3	99.8	102.6	106.1	106.4
Water Level (DTW)	8.15	8.17	8.19	8.21	8.23	8.25	8.25

Sampling

Sampling Method Pump
Sample Collection Date 5/7/24
Sampling Start Time 1240
Sampling Stop Time 1250

Visual Sample Condition:
Turbidity Low
Color Clear
Odor None

Metals field filtered? (Yes) No
Inorganics sampling pump rate 250 ml/min
VOC sampling pump rate ↓

Notes

Weather Conditions:
Well Condition:

Well Name SWW-25R

Field Parameters (Extra Entries)										
	8	9	10							
Time	1232	1235	1238							
Temperature (°C)	18.19	18.03	18.00							
pH (su)	6.52	6.51	6.51							
Conductivity (mS/cm)	2.10	2.08	2.07							
D.O. (mg/L)	0.37	0.33	0.31							
ORP (mV)	110.4	111.7	112.5							
Turbidity (NTU)	–	–	–							
Water Level (DTW)	8.25	8.27	8.30							

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Partly Cloudy
Field Personnel	DWM	Date	5/8/24

Well

Well Name	SWW-26	Total Depth (ft)	26.55
		Datum Elevation (ft)	524.82
Construction Material	PVC	Depth to Water (ft)	14.93
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	509.89
Datum:		Date/Time of Measurement	5/6/24 1549

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 5.58 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/8/24

Purge Time	Start	Stop	Total
	1217	1245	28

Purge Volume: 2.00 gal

Calc. Purge Rate: 270 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1227	1230	1233	1236	1239	1242	1245
Temperature (°C)	19.15	19.63	19.62	19.81	19.75	19.83	19.73
pH (su)	6.58	6.50	6.41	6.39	6.38	6.38	6.36
Conductivity (mS/cm)	0.84	0.94	1.04	1.07	1.08	1.09	1.10
D.O. (mg/L)	5.12	4.81	4.20	3.76	3.61	3.44	3.39
ORP (mV)	168.2	168.2	170.9	173.2	173.8	174.5	175.8
Water Level (DTW)	16.53						16.58

Sampling

Sampling Method	Pump	Sample Collection Date	5/8/24
Sampling Start Time	1241	Sampling Stop Time	1257

Visual Sample Condition:

Turbidity: Low

Color: Clear

Odor: None

Metals field filtered? (Yes) No

Inorganics sampling pump rate: 250 ml/min

VOC sampling pump rate: ↓

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Partly Cloudy
Field Personnel	DWM.	Date	5/8/24

Well

Well Name	SWW-27	Total Depth (ft)	24.32
		Datum Elevation (ft)	519.33
Construction Material	PVC	Depth to Water (ft)	7.68
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	511.65
Datum:		Date/Time of Measurement	5/6/24 1658

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 7.98 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/8/24

Purge Time	Start	Stop	Total
	1346	1414	28

Purge Volume: 2.5 gal

Calc. Purge Rate: 337 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1356	1359	1402	1405	1408	1411	1414
Temperature (°C)	15.83	15.74	15.65	15.71	15.83	15.77	15.75
pH (su)	6.50	6.52	6.53	6.55	6.56	6.58	6.58
Conductivity (mS/cm)	0.75	0.75	0.75	0.75	0.75	0.75	0.75
D.O. (mg/L)	0.31	0.28	0.27	0.26	0.25	0.24	0.23
ORP (mV)	166.5	167.8	168.0	167.4	167.2	166.2	165.6
Water Level (DTW)	9.61	9.61	9.61	9.61	9.61	9.61	9.61

Sampling

Sampling Method	Pump	Sample Collection Date	5/8/24
Sampling Start Time	1416	Sampling Stop Time	1426

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity	Low	Inorganics sampling pump rate	250 ml/min
Color	Clear	VOC sampling pump rate	↓
Odor	None		

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Partly Cloudy
Field Personnel	Dum	Date	5/8/24

Well

Well Name	SWW-28	Total Depth (ft)	36.31
		Datum Elevation (ft)	519.44
Construction Material	PVC	Depth to Water (ft)	5.87
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	513.57
Datum:		Date/Time of Measurement	5/6/24 1702

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 14.61

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/8/24

Purge Time	Start	Stop	Total
	0923	0956	33

Purge Volume: 3.00 gal

Calc. Purge Rate: 344 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	0938	0941	0944	0947	0950	0953	0956
Temperature (°C)	17.36	18.18	18.60	18.92	19.05	19.05	18.99
pH (su)	7.20	7.21	7.21	7.18	7.16	7.15	7.13
Conductivity (mS/cm)	0.83	0.83	0.83	0.83	0.83	0.83	0.83
D.O. (mg/L)	1.48	1.06	0.76	0.59	0.50	0.44	0.40
ORP (mV)	-27.1	-46.8	-57.9	-60.8	-62.9	-62.3	-60.8
Water Level (DTW)	6.95	6.97	6.98	6.99	6.99	6.99	6.99

Sampling

Sampling Method	Pump	Sample Collection Date	5/8/24
Sampling Start Time	0958	Sampling Stop Time	1008

Visual Sample Condition:

Turbidity: Low

Color: Clear

Odor: None

Metals field filtered? (Yes) No

Inorganics sampling pump rate: 250 ml/min

VOC sampling pump rate: ↓

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Partly Cloudy
Field Personnel	Dawn	Date	5/8/24

Well

Well Name	SWW-2B-1	Total Depth (ft)	41.44
		Datum Elevation (ft)	524.57
Construction Material	PVC	Depth to Water (ft)	21.09
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	503.48
Datum:		Date/Time of Measurement	5/6/24 1708

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 9.77 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/8/24

Purge Time	Start	Stop	Total
	1304	1332	28

Purge Volume:

Calc. Purge Rate:

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1314	1317	1320	1323	1326	1329	1332
Temperature (°C)	20.47	20.89	20.74	20.87	20.74	20.57	20.61
pH (su)	6.49	6.53	6.53	6.52	6.52	6.52	6.51
Conductivity (mS/cm)	1.26	1.25	1.26	1.26	1.26	1.24	1.24
D.O. (mg/L)	1.67	1.81	1.75	1.56	1.45	1.43	1.41
ORP (mV)	136.3	139.2	142.8	146.5	149.1	151.4	153.1
Water Level (DTW)	22.40	22.40	22.40	22.40	22.40	22.40	22.40

Sampling

Sampling Method Pump Sample Collection Date 5/8/24

Sampling Start Time 1334 Sampling Stop Time 1344

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity Low Inorganics sampling pump rate 250 ml/min

Color Clear VOC sampling pump rate -V-

Odor None

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s & Rain
Field Personnel	DWM	Date	5/7/24

Well

Well Name	SWW-2B-2	Total Depth (ft)	20.51
		Datum Elevation (ft)	521.40
Construction Material	PVC	Depth to Water (ft)	14.04
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	507.36
Datum:		Date/Time of Measurement	5/6/24 1556

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 3.10 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/1/24

Purge Time	Start	Stop	Total
	0933	1001	28

Purge Volume: 1.5 gal

Calc. Purge Rate: 202 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	0943	0946	0949	0952	0955	0958	1001
Temperature (°C)	18.33	18.30	18.25	18.24	18.16	18.06	17.98
pH (su)	6.40	6.44	6.44	6.43	6.45	6.45	6.44
Conductivity (mS/cm)	1.05	1.04	1.04	1.04	1.03	1.03	1.03
D.O. (mg/L)	4.04	4.06	4.10	4.13	4.16	4.10	4.07
ORP (mV)	65.7	63.7	65.0	66.9	66.9	69.8	69.5
Water Level (DTW)	15.09	15.11	15.15	15.16	15.20	15.21	15.22

Sampling

Sampling Method	Pump	Sample Collection Date	5/7/24
Sampling Start Time	1005	Sampling Stop Time	1015

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity Low Inorganics sampling pump rate 250 ml/min

Color Clear VOC sampling pump rate V

Odor None

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Cloudy / Scattered Showers
Field Personnel	DWM	Date	5/7/24

Well

Well Name	SWW-2B-3	Total Depth (ft)	22.89
		Datum Elevation (ft)	521.60
Construction Material	PVC	Depth to Water (ft)	12.55
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	509.05
Datum:		Date/Time of Measurement	5/6/24 1600

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 4.96 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/7/24

Purge Time	Start	Stop	Total
	1032	1101	29

Purge Volume: 2.00

Calc. Purge Rate: 261 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1042	1045	1048	1051	1054	1058	1101
Temperature (°C)	13.15	14.90	16.63	17.20	17.34	17.60	17.70
pH (su)	6.84	6.86	6.91	7.01	7.03	7.01	7.00
Conductivity (mS/cm)	0.78	0.79	0.78	0.79	0.79	0.79	0.80
D.O. (mg/L)	8.97	8.49	8.35	8.34	8.29	8.20	8.10
ORP (mV)	110.8	108.8	102.8	94.8	91.1	90.9	91.6
Water Level (DTW)	15.17	15.19	15.20	15.20	15.20	15.20	15.20

Sampling

Sampling Method Pump Sample Collection Date 5/7/24

Sampling Start Time 1103 Sampling Stop Time 1113

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity Low Inorganics sampling pump rate 250 ml/min

Color Clear VOC sampling pump rate ↓

Odor None

Notes

Weather Conditions:

Well Condition:

DUP-1 collected from SWW-2B-3

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom Area 1+2
Project Manager	Slawa Bruder	Weather	70s°F Cloudy/Scattered Showers
Field Personnel	Dan	Date	5/7/24

Well

Well Name	SWW-2B-4	Total Depth (ft)	23.64
		Datum Elevation (ft)	515.83
Construction Material	PVC	Depth to Water (ft)	8.22
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	507.61
Datum:		Date/Time of Measurement	5/6/24 1605

Well Volume: (TD-DTW)*0.16 (2") = Three Well Volumes = 7.40 gal

Well Volume: (TD-DTW)*0.041 (1") = Three Well Volumes =

Purge

Purge Method: Pump Purge Date 5/7/24

Purge Time	Start	Stop	Total
	1122	1150	28

Purge Volume: 7.00

Calc. Purge Rate: 270 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1132	1135	1138	1141	1144	1147	1150
Temperature (°C)	16.19	16.00	16.26	16.55	16.59	16.59	16.73
pH (su)	6.40	6.44	6.46	6.50	6.53	6.54	6.52
Conductivity (mS/cm)	0.68	0.68	0.68	0.68	0.68	0.68	0.68
D.O. (mg/L)	1.18	0.95	0.81	0.73	0.69	0.64	0.61
ORP (mV)	123.1	121.1	118.4	115.1	112.6	111.7	111.9
Water Level (DTW)	9.63	9.63	9.63	9.63	9.63	9.63	9.63

Sampling

Sampling Method	Pump	Sample Collection Date	5/7/24
Sampling Start Time	1152	Sampling Stop Time	1202

Visual Sample Condition: Metals field filtered? (Yes) No

Turbidity Low Inorganics sampling pump rate 250 ml/min

Color Clear VOC sampling pump rate ↓

Odor None

Notes

Weather Conditions:

Well Condition:

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom (Area 1/2)
Project Manager	Slawa Bruder	Weather	70s, Cloudy
Field Personnel	DWM	Date	5/9/24

Well

Well Name	SWW-30	Total Depth (ft)	23.53
		Datum Elevation (ft)	524.46
Construction Material	PVC	Depth to Water (ft)	12.97
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	511.49 (511.51)
Datum:		Date/Time of Measurement	5/6/24 1542 5/13/24 14:35
Well Volume: (TD-DTW)*0.16 (2") =		Three Well Volumes =	5.06 gal
Well Volume: (TD-DTW)*0.041 (1") =		Three Well Volumes =	

Purge

Purge Method:	Pump	Purge Date	5/9/24

Purge Time	Start	Stop	Total
	1141	1209	28

Purge Volume:	2.00 gal
Calc. Purge Rate:	270 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1151	1154	1157	1200	1203	1206	1209
Temperature (°C)	15.94	15.90	15.89	15.87	15.82	15.91	15.84
pH (su)	6.56	6.57	6.57	6.57	6.57	6.58	6.58
Conductivity (mS/cm)	0.75	0.75	0.75	0.75	0.75	0.75	0.75
D.O. (mg/L)	4.44	4.33	4.30	4.20	4.12	4.06	4.00
ORP (mV)	254.2	260.6	267.3	266.7	266.3	264.9	264.1
Water Level (DTW)	15.05	15.08	15.10	15.13	15.15	15.17	15.18

Sampling

Sampling Method	Pump	Sample Collection Date	5/9/24
Sampling Start Time	1211	Sampling Stop Time	1225

Visual Sample Condition:		Metals field filtered?	(Yes) No
Turbidity	Low	Inorganics sampling pump rate	250 ml/m.
Color	Clear	VOC sampling pump rate	↓
Odor	None		

Notes

Weather Conditions:

Well Condition:

Note: Collected two(2) sets of samples (Area 1/2 and Area 3 IDEM parameters)

*Field Filtered Dissolved Metals for Area 1/2 samples only.

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Merom (Area 1+2)
Project Manager	Slawa Bruder	Weather	70s °F Cloudy
Field Personnel	DWM	Date	5/9/24

Well

Well Name	SWW-31	Total Depth (ft)	27.31
		Datum Elevation (ft)	525.43
Construction Material	PVC	Depth to Water (ft)	14.18
Well Diameter (in.)	2	Groundwater Elevation (ft MSL)	511.25 (511.25)
Datum:		Date/Time of Measurement	5/6/24 1536 5/13/24 14:28
Well Volume: (TD-DTW)*0.16 (2") =		Three Well Volumes =	6.30 gal
Well Volume: (TD-DTW)*0.041 (1") =		Three Well Volumes =	

Purge

Purge Method:	Pump	Purge Date	5/9/24

Purge Time	Start	Stop	Total
	1233	1301	28

Purge Volume:	2.00 gal
Calc. Purge Rate:	270 ml/min

Purge Water Observation: Clear

Field Parameters

	1	2	3	4	5	6	7
Time	1243	1246	1249	1252	1255	1258	1301
Temperature (°C)	16.55	18.10	18.70	18.86	18.13	18.15	18.13
pH (su)	5.95	6.04	6.19	6.27	6.29	6.28	6.28
Conductivity (mS/cm)	0.63	0.63	0.64	0.64	0.64	0.64	0.64
D.O. (mg/L)	3.75	3.80	3.77	3.77	3.76	3.77	3.75
ORP (mV)	275.3	257.6	238.4	229.6	226.4	226.5	227.0
Water Level (DTW)	14.20	14.22	14.23	14.24	14.25	14.26	14.26

Sampling

Sampling Method	Pump	Sample Collection Date	5/9/24
Sampling Start Time	1303	Sampling Stop Time	1318
Visual Sample Condition:		Metals field filtered?	(Yes) No
Turbidity	Low	Inorganics sampling pump rate	250 ml/min
Color	Clear	VOC sampling pump rate	↓
Odor	None		

Notes

Weather Conditions:

Well Condition:

Note: Collected two(2) sets of samples (Area 1+2 and Area 3 IDEM parameters)
Field Filtered Dissolved Metals for Area 1+2 samples only.

Groundwater Monitoring Form

Site

Project #	170LF01654	Site	Meron Area 1+2
Project Manager	Slawa Bruder	Weather	70s Cloudy
Field Personnel	Dwm	Date	5/9/24

Well

Well Name	SD-1	Total Depth (ft)	6.95
		Datum Elevation (ft)	-
Construction Material	-	Depth to Water (ft)	6.70
Well Diameter (in.)	-	Groundwater Elevation (ft MSL)	-
Datum:	-	Date/Time of Measurement	5/9/24 1342

Well Volume: (TD-DTW)*0.16 (2") = ____ Three Well Volumes = -

Well Volume: (TD-DTW)*0.041 (1") = ____ Three Well Volumes = -

Purge

Purge Method: - Purge Date -

Purge Time	Start	Stop	Total
	-	-	-

Purge Volume: -

Calc. Purge Rate: -

Purge Water Observation: -

Field Parameters

	1	2	3	4	5	6	7
Time							
Temperature (°C)							
pH (su)							
Conductivity (mS/cm)							
D.O. (mg/L)							
ORP (mV)							
Water Level (DTW)							

Sampling

Sampling Method	-	Sample Collection Date	-
Sampling Start Time	-	Sampling Stop Time	-

Visual Sample Condition:

Metals field filtered? Yes No

Turbidity	-	Inorganics sampling pump rate	-
Color	-	VOC sampling pump rate	-
Odor	-		

Notes

Weather Conditions:

Well Condition:

Outfall not sampled - stagnant water observed.

Low-Flow Test Report:

Test Date / Time: 5/8/2024 2:51:15 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-5 **Well Diameter: 1 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 8.82 ft** **Total Depth: 18.82 ft** **Initial Depth to Water: 5.22 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 13 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 2:51 PM	00:00	6.48 pH	15.53 °C	2.08 mS/cm	0.38 mg/L	-42.6 mV		
5/8/2024 2:54 PM	03:00	6.48 pH	15.07 °C	2.07 mS/cm	0.27 mg/L	-99.2 mV		
5/8/2024 2:57 PM	06:00	6.49 pH	15.01 °C	2.07 mS/cm	0.22 mg/L	-133.6 mV		
5/8/2024 3:00 PM	09:00	6.47 pH	15.34 °C	2.08 mS/cm	0.19 mg/L	-168.1 mV		
5/8/2024 3:03 PM	12:00	6.48 pH	15.22 °C	2.08 mS/cm	0.16 mg/L	-181.1 mV		
5/8/2024 3:06 PM	15:00	6.48 pH	15.11 °C	2.08 mS/cm	0.14 mg/L	-184.4 mV		
5/8/2024 3:09 PM	18:00	6.49 pH	15.43 °C	2.09 mS/cm	0.14 mg/L	-188.3 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/8/2024 3:26:49 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-6 **Well Diameter: 1 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 23.58 ft** **Total Depth: 28.58 ft** **Initial Depth to Water: 5.18 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 26 ft** **Estimated Total Volume Pumped: 1800 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.6 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 3:26 PM	00:00	7.02 pH	15.82 °C	0.91 mS/cm	2.09 mg/L	-125.3 mV		
5/8/2024 3:29 PM	03:00	7.04 pH	15.58 °C	0.84 mS/cm	2.28 mg/L	-95.2 mV		
5/8/2024 3:32 PM	06:00	7.12 pH	15.46 °C	0.82 mS/cm	3.63 mg/L	-33.3 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/8/2024 4:18:34 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-14 **Well Diameter: 1 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 8.69 ft** **Total Depth: 13.69 ft** **Initial Depth to Water: 5.5 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 12.5 ft** **Estimated Total Volume Pumped: 0 ml** **Flow Cell Volume: 130 ml**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 4:18 PM	00:00	7.07 pH	18.33 °C	1.20 mS/cm	4.43 mg/L	15.9 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/7/2024 2:17:35 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-15 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 7 ft** **Total Depth: 12 ft** **Initial Depth to Water: 5.07 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 11 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.05 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/7/2024 2:17 PM	00:00	6.41 pH	19.08 °C	0.45 mS/cm	5.48 mg/L	137.9 mV		
5/7/2024 2:20 PM	03:00	6.40 pH	19.62 °C	0.44 mS/cm	5.60 mg/L	137.9 mV		
5/7/2024 2:23 PM	06:00	6.42 pH	20.02 °C	0.43 mS/cm	5.64 mg/L	136.2 mV		
5/7/2024 2:26 PM	09:00	6.44 pH	19.53 °C	0.43 mS/cm	5.66 mg/L	134.9 mV		
5/7/2024 2:29 PM	12:00	6.44 pH	19.28 °C	0.43 mS/cm	5.72 mg/L	134.3 mV		
5/7/2024 2:32 PM	15:00	6.43 pH	19.24 °C	0.43 mS/cm	5.70 mg/L	134.3 mV		
5/7/2024 2:35 PM	18:00	6.41 pH	19.16 °C	0.43 mS/cm	5.72 mg/L	135.0 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/9/2024 9:56:42 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-18R **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 15.09 ft** **Total Depth: 20.09 ft** **Initial Depth to Water: 9.17 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 17.5 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/9/2024 9:56 AM	00:00	6.60 pH	15.42 °C	3.22 mS/cm	0.91 mg/L	371.5 mV		
5/9/2024 9:59 AM	03:00	6.60 pH	15.39 °C	3.21 mS/cm	0.76 mg/L	379.5 mV		
5/9/2024 10:02 AM	06:00	6.59 pH	15.42 °C	3.20 mS/cm	0.67 mg/L	387.1 mV		
5/9/2024 10:05 AM	09:00	6.60 pH	15.42 °C	3.19 mS/cm	0.61 mg/L	396.5 mV		
5/9/2024 10:08 AM	12:00	6.60 pH	15.45 °C	3.18 mS/cm	0.55 mg/L	399.0 mV		
5/9/2024 10:11 AM	15:00	6.61 pH	15.37 °C	3.17 mS/cm	0.53 mg/L	408.1 mV		
5/9/2024 10:14 AM	18:00	6.61 pH	15.39 °C	3.15 mS/cm	0.51 mg/L	416.5 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/9/2024 10:43:36 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-19 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 9.41 ft** **Total Depth: 14.41 ft** **Initial Depth to Water: 6.81 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 14 ft** **Estimated Total Volume Pumped: 6195 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/9/2024 10:43 AM	00:00	6.39 pH	16.08 °C	0.90 mS/cm	1.33 mg/L	291.2 mV		
5/9/2024 10:46 AM	03:00	6.41 pH	16.32 °C	0.91 mS/cm	1.05 mg/L	286.9 mV		
5/9/2024 10:49 AM	06:00	6.43 pH	16.52 °C	0.90 mS/cm	0.77 mg/L	288.5 mV		
5/9/2024 10:51 AM	07:43	6.43 pH	16.58 °C	0.89 mS/cm	0.65 mg/L	284.1 mV		
5/9/2024 10:52 AM	08:39	6.44 pH	16.61 °C	0.89 mS/cm	0.60 mg/L	281.8 mV		
5/9/2024 10:55 AM	11:39	6.44 pH	16.20 °C	0.89 mS/cm	0.47 mg/L	271.2 mV		
5/9/2024 10:58 AM	14:39	6.44 pH	16.10 °C	0.88 mS/cm	0.40 mg/L	257.4 mV		
5/9/2024 11:01 AM	17:39	6.42 pH	15.95 °C	0.88 mS/cm	0.37 mg/L	251.3 mV		
5/9/2024 11:04 AM	20:39	6.41 pH	16.11 °C	0.88 mS/cm	0.36 mg/L	247.8 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/7/2024 2:54:29 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-20 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 11.11 ft** **Total Depth: 21.11 ft** **Initial Depth to Water: 7.44 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 20 ft** **Estimated Total Volume Pumped: 6300 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/7/2024 2:54 PM	00:00	6.11 pH	16.87 °C	1.53 mS/cm	0.53 mg/L	90.6 mV		
5/7/2024 2:57 PM	03:00	6.12 pH	16.64 °C	1.52 mS/cm	0.44 mg/L	100.1 mV		
5/7/2024 3:00 PM	06:00	6.11 pH	16.68 °C	1.52 mS/cm	0.42 mg/L	108.2 mV		
5/7/2024 3:03 PM	09:00	6.11 pH	16.65 °C	1.52 mS/cm	0.40 mg/L	114.6 mV		
5/7/2024 3:06 PM	12:00	6.11 pH	16.49 °C	1.50 mS/cm	0.42 mg/L	120.5 mV		
5/7/2024 3:09 PM	15:00	6.09 pH	16.45 °C	1.48 mS/cm	0.52 mg/L	126.7 mV		
5/7/2024 3:12 PM	18:00	6.09 pH	16.48 °C	1.46 mS/cm	0.62 mg/L	131.9 mV		
5/7/2024 3:15 PM	21:00	6.11 pH	16.61 °C	1.45 mS/cm	0.67 mg/L	135.0 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/8/2024 10:44:12 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-21 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 17.79 ft** **Total Depth: 22.79 ft** **Initial Depth to Water: 10.03 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 20 ft** **Estimated Total Volume Pumped: 8100 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.26 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 10:44 AM	00:00	6.54 pH	14.52 °C	2.86 mS/cm	2.13 mg/L	84.6 mV		
5/8/2024 10:47 AM	03:00	6.54 pH	15.31 °C	2.84 mS/cm	1.78 mg/L	110.7 mV		
5/8/2024 10:50 AM	06:00	6.60 pH	18.38 °C	2.86 mS/cm	1.69 mg/L	117.7 mV		
5/8/2024 10:53 AM	09:00	6.62 pH	18.86 °C	2.86 mS/cm	1.59 mg/L	127.2 mV		
5/8/2024 10:56 AM	12:00	6.66 pH	17.83 °C	2.85 mS/cm	1.42 mg/L	137.3 mV		
5/8/2024 10:59 AM	15:00	6.61 pH	17.27 °C	2.85 mS/cm	1.30 mg/L	149.8 mV		
5/8/2024 11:02 AM	18:00	6.58 pH	17.18 °C	2.85 mS/cm	1.21 mg/L	160.6 mV		
5/8/2024 11:05 AM	21:00	6.59 pH	17.16 °C	2.85 mS/cm	1.15 mg/L	168.3 mV		
5/8/2024 11:08 AM	24:00	6.60 pH	17.28 °C	2.85 mS/cm	1.10 mg/L	172.3 mV		
5/8/2024 11:11 AM	27:00	6.60 pH	17.30 °C	2.86 mS/cm	1.05 mg/L	178.2 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/8/2024 11:33:26 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-22 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 5 ft** **Top of Screen: 15.16 ft** **Total Depth: 20.16 ft** **Initial Depth to Water: 9.61 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 18 ft** **Estimated Total Volume Pumped:** **Flow Cell Volume: 130 ml**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP	Depth to Water	Flow
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 11:33 AM	00:00	6.57 pH	13.74 °C	2.39 mS/cm	7.54 mg/L	200.1 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/7/2024 1:39:40 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-23 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 11.86 ft** **Total Depth: 21.86 ft** **Initial Depth to Water: 5.63 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 17 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		Flow
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/7/2024 1:39 PM	00:00	6.53 pH	14.71 °C	2.10 mS/cm	2.73 mg/L	121.6 mV		
5/7/2024 1:42 PM	03:00	6.54 pH	14.82 °C	2.06 mS/cm	2.67 mg/L	121.0 mV		
5/7/2024 1:45 PM	06:00	6.55 pH	14.82 °C	2.03 mS/cm	2.53 mg/L	120.5 mV		
5/7/2024 1:48 PM	09:00	6.56 pH	14.91 °C	2.01 mS/cm	2.44 mg/L	120.1 mV		
5/7/2024 1:51 PM	12:00	6.56 pH	15.00 °C	2.00 mS/cm	2.36 mg/L	119.8 mV		
5/7/2024 1:54 PM	15:00	6.57 pH	15.22 °C	1.98 mS/cm	2.30 mg/L	120.0 mV		
5/7/2024 1:57 PM	18:00	6.59 pH	15.27 °C	1.97 mS/cm	2.24 mg/L	119.2 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/7/2024 1:01:51 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-24 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 9.91 ft** **Total Depth: 19.91 ft** **Initial Depth to Water: 6.4 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 15 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.01 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/7/2024 1:01 PM	00:00	6.61 pH	16.64 °C	1.11 mS/cm	6.91 mg/L	140.9 mV		
5/7/2024 1:04 PM	03:00	6.62 pH	16.82 °C	1.11 mS/cm	6.84 mg/L	137.6 mV		
5/7/2024 1:07 PM	06:00	6.61 pH	16.95 °C	1.11 mS/cm	6.73 mg/L	135.7 mV		
5/7/2024 1:10 PM	09:00	6.63 pH	17.02 °C	1.10 mS/cm	6.66 mg/L	132.8 mV		
5/7/2024 1:13 PM	12:00	6.64 pH	17.00 °C	1.11 mS/cm	6.67 mg/L	130.9 mV		
5/7/2024 1:16 PM	15:00	6.63 pH	16.97 °C	1.10 mS/cm	6.62 mg/L	130.1 mV		
5/7/2024 1:19 PM	18:00	6.63 pH	16.76 °C	1.10 mS/cm	6.64 mg/L	129.3 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/7/2024 12:11:41 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-25R **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 19 ft** **Total Depth: 29 ft** **Initial Depth to Water: 7.7 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 23.45 ft** **Estimated Total Volume Pumped: 8100 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.15 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/7/2024 12:11 PM	00:00	6.43 pH	14.43 °C	1.99 mS/cm	0.35 mg/L	99.4 mV		
5/7/2024 12:14 PM	03:00	6.41 pH	16.38 °C	1.98 mS/cm	0.30 mg/L	103.2 mV		
5/7/2024 12:17 PM	06:00	6.51 pH	19.81 °C	1.98 mS/cm	0.44 mg/L	101.3 mV		
5/7/2024 12:20 PM	09:00	6.59 pH	21.00 °C	2.04 mS/cm	0.62 mg/L	99.8 mV		
5/7/2024 12:23 PM	12:00	6.59 pH	21.64 °C	2.09 mS/cm	0.82 mg/L	102.6 mV		
5/7/2024 12:26 PM	15:00	6.59 pH	21.92 °C	2.14 mS/cm	0.94 mg/L	106.1 mV		
5/7/2024 12:29 PM	18:00	6.61 pH	18.68 °C	2.15 mS/cm	0.53 mg/L	106.4 mV		
5/7/2024 12:32 PM	21:00	6.52 pH	18.19 °C	2.10 mS/cm	0.37 mg/L	110.4 mV		
5/7/2024 12:35 PM	24:00	6.51 pH	18.03 °C	2.08 mS/cm	0.33 mg/L	111.7 mV		
5/7/2024 12:38 PM	27:00	6.51 pH	18.00 °C	2.07 mS/cm	0.31 mg/L	112.5 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/8/2024 12:27:38 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-26 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 16.55 ft** **Total Depth: 26.55 ft** **Initial Depth to Water: 14.93 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 23.5 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.05 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 12:27 PM	00:00	6.58 pH	19.15 °C	0.84 mS/cm	5.12 mg/L	168.2 mV		
5/8/2024 12:30 PM	03:00	6.50 pH	19.63 °C	0.94 mS/cm	4.81 mg/L	168.2 mV		
5/8/2024 12:33 PM	06:00	6.41 pH	19.62 °C	1.04 mS/cm	4.20 mg/L	170.9 mV		
5/8/2024 12:36 PM	09:00	6.39 pH	19.81 °C	1.07 mS/cm	3.76 mg/L	173.2 mV		
5/8/2024 12:39 PM	12:00	6.38 pH	19.75 °C	1.08 mS/cm	3.61 mg/L	173.8 mV		
5/8/2024 12:42 PM	15:00	6.38 pH	19.83 °C	1.09 mS/cm	3.44 mg/L	174.5 mV		
5/8/2024 12:45 PM	18:00	6.36 pH	19.73 °C	1.10 mS/cm	3.39 mg/L	175.8 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/8/2024 1:56:11 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-27 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 14.32 ft** **Total Depth: 24.32 ft** **Initial Depth to Water: 7.68 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 21 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 1:56 PM	00:00	6.50 pH	15.83 °C	0.75 mS/cm	0.31 mg/L	166.5 mV		
5/8/2024 1:59 PM	03:00	6.52 pH	15.74 °C	0.75 mS/cm	0.28 mg/L	167.8 mV		
5/8/2024 2:02 PM	06:00	6.53 pH	15.65 °C	0.75 mS/cm	0.27 mg/L	168.0 mV		
5/8/2024 2:05 PM	09:00	6.55 pH	15.71 °C	0.75 mS/cm	0.26 mg/L	167.4 mV		
5/8/2024 2:08 PM	12:00	6.56 pH	15.83 °C	0.75 mS/cm	0.25 mg/L	167.2 mV		
5/8/2024 2:11 PM	15:00	6.58 pH	15.77 °C	0.75 mS/cm	0.24 mg/L	166.2 mV		
5/8/2024 2:14 PM	18:00	6.58 pH	15.75 °C	0.75 mS/cm	0.23 mg/L	165.6 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/8/2024 9:38:41 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-28 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 26.31 ft** **Total Depth: 36.31 ft** **Initial Depth to Water: 5.87 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 33.5 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.04 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 9:38 AM	00:00	7.20 pH	17.36 °C	0.83 mS/cm	1.48 mg/L	-27.7 mV		
5/8/2024 9:41 AM	03:00	7.21 pH	18.18 °C	0.83 mS/cm	1.06 mg/L	-46.8 mV		
5/8/2024 9:44 AM	06:00	7.21 pH	18.60 °C	0.83 mS/cm	0.76 mg/L	-57.9 mV		
5/8/2024 9:47 AM	09:00	7.18 pH	18.92 °C	0.83 mS/cm	0.59 mg/L	-60.8 mV		
5/8/2024 9:50 AM	12:00	7.16 pH	19.05 °C	0.83 mS/cm	0.50 mg/L	-62.9 mV		
5/8/2024 9:53 AM	15:00	7.15 pH	19.05 °C	0.83 mS/cm	0.44 mg/L	-62.3 mV		
5/8/2024 9:56 AM	18:00	7.13 pH	18.99 °C	0.83 mS/cm	0.40 mg/L	-60.8 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/9/2024 11:51:35 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-30 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13.53 ft** **Total Depth: 23.53 ft** **Initial Depth to Water: 12.97 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 20 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.13 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/9/2024 11:51 AM	00:00	6.56 pH	15.94 °C	0.75 mS/cm	4.44 mg/L	254.2 mV		
5/9/2024 11:54 AM	03:00	6.57 pH	15.90 °C	0.75 mS/cm	4.33 mg/L	260.6 mV		
5/9/2024 11:57 AM	06:00	6.57 pH	15.89 °C	0.75 mS/cm	4.30 mg/L	267.3 mV		
5/9/2024 12:00 PM	09:00	6.57 pH	15.87 °C	0.75 mS/cm	4.20 mg/L	266.7 mV		
5/9/2024 12:03 PM	12:00	6.57 pH	15.82 °C	0.75 mS/cm	4.12 mg/L	266.3 mV		
5/9/2024 12:06 PM	15:00	6.58 pH	15.91 °C	0.75 mS/cm	4.06 mg/L	264.9 mV		
5/9/2024 12:09 PM	18:00	6.58 pH	15.84 °C	0.75 mS/cm	4.00 mg/L	264.1 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/9/2024 12:43:29 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-31 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.31 ft** **Total Depth: 27.31 ft** **Initial Depth to Water: 14.18 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 22.5 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.06 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/9/2024 12:43 PM	00:00	5.95 pH	16.55 °C	0.63 mS/cm	3.75 mg/L	275.3 mV		
5/9/2024 12:46 PM	03:00	6.04 pH	18.10 °C	0.63 mS/cm	3.80 mg/L	257.6 mV		
5/9/2024 12:49 PM	06:00	6.19 pH	18.70 °C	0.64 mS/cm	3.77 mg/L	238.4 mV		
5/9/2024 12:52 PM	09:00	6.27 pH	18.86 °C	0.64 mS/cm	3.77 mg/L	229.6 mV		
5/9/2024 12:55 PM	12:00	6.29 pH	18.13 °C	0.64 mS/cm	3.76 mg/L	226.4 mV		
5/9/2024 12:58 PM	15:00	6.28 pH	18.15 °C	0.64 mS/cm	3.77 mg/L	226.5 mV		
5/9/2024 1:01 PM	18:00	6.28 pH	18.13 °C	0.64 mS/cm	3.75 mg/L	227.0 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/8/2024 1:13:52 PM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-2B-1 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 31.44 ft** **Total Depth: 41.44 ft** **Initial Depth to Water: 21.09 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 33 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/8/2024 1:13 PM	00:00	6.49 pH	20.47 °C	1.26 mS/cm	1.67 mg/L	136.3 mV		
5/8/2024 1:16 PM	03:00	6.53 pH	20.89 °C	1.25 mS/cm	1.81 mg/L	139.2 mV		
5/8/2024 1:19 PM	06:00	6.53 pH	20.74 °C	1.26 mS/cm	1.75 mg/L	142.8 mV		
5/8/2024 1:22 PM	09:00	6.52 pH	20.87 °C	1.26 mS/cm	1.56 mg/L	146.5 mV		
5/8/2024 1:25 PM	12:00	6.52 pH	20.74 °C	1.26 mS/cm	1.45 mg/L	149.1 mV		
5/8/2024 1:28 PM	15:00	6.52 pH	20.57 °C	1.24 mS/cm	1.43 mg/L	151.4 mV		
5/8/2024 1:31 PM	18:00	6.51 pH	20.61 °C	1.24 mS/cm	1.41 mg/L	153.1 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/7/2024 9:43:27 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-2B-2 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 10.51 ft** **Total Depth: 20.51 ft** **Initial Depth to Water: 14.04 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 19 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.13 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		Flow
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/7/2024 9:43 AM	00:00	6.40 pH	18.33 °C	1.05 mS/cm	4.04 mg/L	65.7 mV		
5/7/2024 9:46 AM	03:00	6.44 pH	18.30 °C	1.04 mS/cm	4.06 mg/L	63.7 mV		
5/7/2024 9:49 AM	06:00	6.44 pH	18.25 °C	1.04 mS/cm	4.10 mg/L	65.0 mV		
5/7/2024 9:52 AM	09:00	6.43 pH	18.24 °C	1.04 mS/cm	4.13 mg/L	66.9 mV		
5/7/2024 9:55 AM	12:00	6.45 pH	18.16 °C	1.03 mS/cm	4.16 mg/L	66.9 mV		
5/7/2024 9:58 AM	15:00	6.45 pH	18.06 °C	1.03 mS/cm	4.10 mg/L	69.8 mV		
5/7/2024 10:01 AM	18:00	6.44 pH	17.90 °C	1.03 mS/cm	4.07 mg/L	69.5 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/7/2024 10:42:35 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-2B-3 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 12.89 ft** **Total Depth: 22.89 ft** **Initial Depth to Water: 12.55 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 21 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0.03 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/7/2024 10:42 AM	00:00	6.84 pH	13.15 °C	0.78 mS/cm	8.97 mg/L	110.8 mV		
5/7/2024 10:45 AM	03:00	6.86 pH	14.90 °C	0.79 mS/cm	8.49 mg/L	108.8 mV		
5/7/2024 10:48 AM	06:00	6.91 pH	16.63 °C	0.78 mS/cm	8.35 mg/L	102.8 mV		
5/7/2024 10:51 AM	09:00	7.01 pH	17.20 °C	0.79 mS/cm	8.34 mg/L	94.8 mV		
5/7/2024 10:54 AM	12:00	7.03 pH	17.34 °C	0.79 mS/cm	8.29 mg/L	91.1 mV		
5/7/2024 10:57 AM	15:00	7.01 pH	17.60 °C	0.79 mS/cm	8.20 mg/L	90.9 mV		
5/7/2024 11:00 AM	18:00	7.00 pH	17.70 °C	0.80 mS/cm	8.10 mg/L	91.6 mV		

Samples

Sample ID:	Description:

Low-Flow Test Report:

Test Date / Time: 5/7/2024 11:32:01 AM
Project: Merom (Areas 1+2)
Operator Name: DWM

Location Name: SWW-2B-4 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 13.64 ft** **Total Depth: 23.64 ft** **Initial Depth to Water: 8.22 ft**	**Pump Type: Dedicated** **Tubing Type: LDPE** **Pump Intake From TOC: 19 ft** **Estimated Total Volume Pumped: 5400 ml** **Flow Cell Volume: 130 ml** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 792620**

Test Notes:

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	ORP		
		+/- 0.1	+/- 3 %	+/- 3 %	+/- 10 %	+/- 10		
5/7/2024 11:32 AM	00:00	6.40 pH	16.19 °C	0.68 mS/cm	1.18 mg/L	123.1 mV		
5/7/2024 11:35 AM	03:00	6.44 pH	16.00 °C	0.68 mS/cm	0.95 mg/L	121.1 mV		
5/7/2024 11:38 AM	06:00	6.46 pH	16.26 °C	0.68 mS/cm	0.81 mg/L	118.4 mV		
5/7/2024 11:41 AM	09:00	6.50 pH	16.55 °C	0.68 mS/cm	0.73 mg/L	115.1 mV		
5/7/2024 11:44 AM	12:00	6.53 pH	16.59 °C	0.68 mS/cm	0.69 mg/L	112.6 mV		
5/7/2024 11:47 AM	15:00	6.54 pH	16.59 °C	0.68 mS/cm	0.64 mg/L	111.7 mV		
5/7/2024 11:50 AM	18:00	6.52 pH	16.73 °C	0.68 mS/cm	0.61 mg/L	111.9 mV		

Samples

Sample ID:	Description:

Appendix C: Potentiometric Surface Maps, May 6, 2024

C:\USERS\MILES.SHARPLESS\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\HOOSIER ENERGY\MEROM\170LF01654\170LF01654-ARE A1-5.24.DWG, FIG1

LEGEND:

SWW-14
482.21
(15:00)
MONITORING WELL
Well Identification
Static Water Elevation (ft.)
Measurement Time

APPROXIMATE FACILITY BOUNDARY

APPROXIMATE SOLID WASTE BOUNDARY

E E POWER TRANSMISSION LINE

430 03-02-23 SURVEY CONTOURS (5ft)

501 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)

GROUNDWATER FLOW DIRECTION

NOTE: ALL LOCATIONS ARE APPROXIMATE

CR 500 W

AREA 1

AREA 2A

SWW-14 482.21 (15:00)
DW-5
SWW-19 491.58 (15:20)
SWW-18R 506.30 (15:27)
SWW-3J 511.25 (15:36)
SWW-30 511.49 (15:42)
SWW-6 498.17 (14:36)
SWW-5 498.06 (14:25)
SWW-22
SWW-21
SWW-26
DW-3

N

0 100 200 300 400

SCALE: 1" = 400'

Figure: 1	Scale: AS SHOWN	Drn. By: MS	Ckd. By: SB	Date: 07/02/2024	Project Number: 170LF01654

POTENTIOMETRIC SURFACE MAP - AREA 1
MAY 6, 2024

HOOSIER ENERGY
MEROM GENERATING STATION
RWS TYPE II LANDFILL
SULLIVAN COUNTY, INDIANA

ATLAS

C:\USERS\MILES.SHARPLESS\ONEATLAS\DIGITAL SERVICES - FILE SERVER\2024\CAD DEPARTMENT\HOOSIER ENERGY\MEROM\170LF01654\170LF01654-AREA 2-5.24.DWG, FIG2

LEGEND:

- SWW-14 / 493.98 / (15:04) — MONITORING WELL
  - Well Identification
  - Static Water Elevation (ft.)
  - Measurement Time
- APPROXIMATE FACILITY BOUNDARY
- APPROXIMATE SOLID WASTE BOUNDARY
- E — E — POWER TRANSMISSION LINE
- 430 — 03-02-23 SURVEY CONTOURS
- 507 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (ft)
- GROUNDWATER FLOW DIRECTION

NOTE: ALL LOCATIONS ARE APPROXIMATE
*SWW-2B-3 WAS OMITTED FROM INTERPRETATION

AREA 1

AREA 2A

AREA 2B

SWW-22
513.37
(16:38)

SWW-21
512.33
(16:34)

SWW-26
509.89
(15:49)

DW-3

SWW-20
510.98
(16:30)

DW-1

SWW-15
509.56
(16:26)

SWW-27
511.65
(16:58)

SWW-2B-1
503.48
(17:08)

SWW-23
517.59
(16:22)

SWW-24
517.05
(16:18)

SWW-28
513.57
(17:02)

SWW-2B-2
507.36
(15:56)

SWW-25R
510.82
(16:11)

SWW-2B-3
509.05*
(16:00)

SWW-2B-4
507.61
(16:05)

N

0 100 200 300 400 500

SCALE: 1" = 500'

Figure: 2

Scale: AS SHOWN

Drn. By: MS

Ckd. By: SB

Date: 06/18/2024

Project Number: 170LF01654

POTENTIOMETRIC SURFACE MAP - AREA 2A AND 2B
MAY 6, 2024

HOOSIER ENERGY
MEROM GENERATING STATION
RWS TYPE II LANDFILL
SULLIVAN COUNTY, INDIANA

ATLAS

Appendix D: DUMPStat Intrawell Statistical Analysis

D1: DUMPStat Intrawell Statistical Analysis – Area 1

D2: DUMPStat Intrawell Statistical Analysis – Area 2A

D3: DUMPStat Intrawell Statistical Analysis – Area 2B

D1: DUMPStat Intrawell Statistical Analysis – Area 1

Table 1

Analytical Data Summary for 5/6/2024 to 5/9/2024

Constituents	Units	SWW-14	SWW-15	SWW-18R	SWW-19	SWW-30	SWW-31	SWW-5	SWW-6
Arsenic, dissolved	mg/L	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Barium, dissolved	mg/L	.260	<.050	<.050	<.050	.057	<.050	<.050	.450
Boron, dissolved	mg/L	.520	<.020	4.900	1.400	.023	.088	13.400	.290
Cadmium, dissolved	mg/L	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Chloride	mg/L	72.5	<10.0	477.0	31.7	46.3	<10.0	50.0	<10.0
Chromium, dissolved	mg/L	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02
Fluoride	mg/L	.29	.19	.12	<.10	.14	.17	.14	.34
Lead, dissolved	mg/L	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Mercury, dissolved	mg/L	<.0002	<.0002	<.0002	<.0002	<.0002	<.0002	<.0002	<.0002
pH	SU	7.07	6.41	6.61	6.41	6.58	6.28	6.49	7.34
Selenium, dissolved	mg/L	<.0020	.0027	<.0020	.0100	<.0020	.0024	<.0020	<.0020
Sodium, dissolved	mg/L	80.2	12.1	166.0	32.3	18.8	10.2	33.5	119.0
Specific conductance-field	umhos/cm	1200	430	3150	880	750	640	2090	820
Sulfate	mg/L	231.0	75.0	781.0	252.0	34.4	119.0	509.0	<10.0
Total dissolved solids	mg/L	812	291	2900	708	448	471	1940	508

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Arsenic, dissolved	mg/L	SWW-14	33	7	70	0.0058	0.0033	0.0150	0.0010	0.0125	0.0058	0.0240	normal		
Arsenic, dissolved	mg/L	SWW-15	33	2	66			0.0010	0.0010			0.0036	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-18R	36	3	69	0.0012	0.0006	0.0010	0.0010	0.0012	0.0012	0.0047	normal		
Arsenic, dissolved	mg/L	SWW-19	36	3	69			0.0010	0.0010			0.0020	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-30	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-31	25	3	28			0.0010	0.0010			0.0015	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-5	37	3	71			0.0010	0.0010			0.0050	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-6	37	3	71	0.0013	0.0005	0.0010	0.0010	0.0013	0.0013	0.0038	normal		
Barium, dissolved	mg/L	SWW-14	33	7	73	0.2242	0.0481	0.4300	0.2600	0.3939	0.3937	0.4886	normal		
Barium, dissolved	mg/L	SWW-15	33	2	65	0.0578	0.0056	0.0500	0.0500	0.0578	0.0578	0.0885	normal		
Barium, dissolved	mg/L	SWW-18R	36	3	69			0.0500	0.0500			0.0957	nonpar	.99	**
Barium, dissolved	mg/L	SWW-19	36	3	69			0.0500	0.0500			0.0595	nonpar	.99	**
Barium, dissolved	mg/L	SWW-30	25	3	28	0.0558	0.0063	0.0570	0.0570	0.0577	0.0558	0.0905	normal		
Barium, dissolved	mg/L	SWW-31	25	3	28	0.0759	0.0371	0.0500	0.0500	0.0759	0.0759	0.2800	normal		
Barium, dissolved	mg/L	SWW-5	37	3	74			0.0500	0.0500			0.1260	nonpar	.99	**
Barium, dissolved	mg/L	SWW-6	37	3	74	0.4764	0.0675	0.4600	0.4500	0.4764	0.4764	0.8475	normal		
Boron, dissolved	mg/L	SWW-14	33	7	92	0.3050	0.2057	0.7000	0.5200	1.2192	1.2799	1.4364	normal		
Boron, dissolved	mg/L	SWW-15	33	2	65	0.0391	0.0200	0.0200	0.0200	0.0391	0.0391	0.1488	normal		
Boron, dissolved	mg/L	SWW-18R	36	3	69	3.3023	1.8453	5.6000	4.9000	4.2298	4.4436	13.4512	normal		
Boron, dissolved	mg/L	SWW-19	36	3	69	1.6933	1.1878	2.7000	1.4000	1.8091	1.6933	8.2264	normal		
Boron, dissolved	mg/L	SWW-30	25	3	28	0.0250	0.0087	0.0200	0.0230	0.0250	0.0250	0.0729	normal		
Boron, dissolved	mg/L	SWW-31	25	3	28	0.0829	0.0297	0.0740	0.0880	0.0829	0.0829	0.2462	normal		
Boron, dissolved	mg/L	SWW-5	37	3	93	14.6887	8.4131	15.6000	13.4000	14.6887	14.6887	60.9605	normal		
Boron, dissolved	mg/L	SWW-6	37	3	93	0.2976	0.0237	0.3000	0.2900	0.2976	0.2976	0.4277	normal		
Cadmium, dissolved	mg/L	SWW-14	33	7	70			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-15	33	2	66			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-18R	36	3	69			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-19	36	3	69			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-30	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-31	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-5	37	3	71			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-6	37	3	71			0.0010	0.0010			0.0010	nonpar	.99	**
Chloride	mg/L	SWW-14	33	7	85	76.7333	15.0514	66.6000	72.5000	76.7333	76.7333	159.5161	normal		
Chloride	mg/L	SWW-15	33	2	66	12.2758	4.3041	10.0000	10.0000	12.2758	12.2758	35.9485	normal		
Chloride	mg/L	SWW-18R	36	3	70	507.8056	98.0574	497.0000	477.0000	507.8056	507.8056	1047.1211	normal		
Chloride	mg/L	SWW-19	35	3	69	604.6857	163.5442	114.0000	31.7000	604.6857	604.6857	1504.1786	normal		
Chloride	mg/L	SWW-30	24	3	28	39.4250	7.4371	44.0000	46.3000	39.6194	40.9166	80.3288	normal		
Chloride	mg/L	SWW-31	25	3	28	16.7120	10.0651	10.0000	10.0000	16.7120	16.7120	72.0702	normal		
Chloride	mg/L	SWW-5	37	3	87	167.5189	146.6456	63.2000	50.0000	167.5189	167.5189	974.0699	normal		
Chloride	mg/L	SWW-6	37	3	78			10.0000	10.0000			13.2000	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-14	33	7	70			0.0200	0.0200			0.0200	nonpar	.99	**

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Chromium, dissolved	mg/L	SWW-15	33	2	66			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-18R	36	3	69			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-19	36	3	69			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-30	25	3	28			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-31	25	3	28			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-5	37	3	71			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-6	37	3	71			0.0200	0.0200			0.0200	nonpar	.99	**
Fluoride	mg/L	SWW-14	33	7	69	0.3353	0.0614	0.3400	0.2900	0.3353	0.3353	0.6730	normal		
Fluoride	mg/L	SWW-15	33	2	65	0.1967	0.0457	0.1900	0.1900	0.1967	0.1967	0.4480	normal		
Fluoride	mg/L	SWW-18R	36	3	69	0.1551	0.0422	0.1800	0.1200	0.1551	0.1551	0.3875	normal		
Fluoride	mg/L	SWW-19	36	3	69	0.1039	0.0156	0.1600	0.1000	0.1627	0.1039	0.1895	normal		
Fluoride	mg/L	SWW-30	25	3	28	0.1616	0.0421	0.1000	0.1400	0.1616	0.1616	0.3933	normal		
Fluoride	mg/L	SWW-31	25	3	28	0.1473	0.0362	0.1100	0.1700	0.1473	0.1473	0.3464	normal		
Fluoride	mg/L	SWW-5	37	3	71	0.1687	0.0432	0.1900	0.1400	0.1687	0.1687	0.4061	normal		
Fluoride	mg/L	SWW-6	37	3	71	0.3525	0.0488	0.3700	0.3400	0.3525	0.3525	0.6207	normal		
Lead, dissolved	mg/L	SWW-14	33	7	73			0.0010	0.0010			0.0140	nonpar	.99	**
Lead, dissolved	mg/L	SWW-15	33	2	66			0.0010	0.0010			0.0050	nonpar	.99	**
Lead, dissolved	mg/L	SWW-18R	36	3	68			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-19	36	3	69			0.0010	0.0010			0.0050	nonpar	.99	**
Lead, dissolved	mg/L	SWW-30	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-31	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-5	37	3	74			0.0010	0.0010			0.0050	nonpar	.99	**
Lead, dissolved	mg/L	SWW-6	37	3	74			0.0010	0.0010			0.0014	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-14	33	7	70			0.0002	0.0002			0.2000	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-15	33	2	66			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-18R	36	3	69			0.0002	0.0002			0.0005	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-19	36	3	69			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-30	25	3	28			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-31	25	3	28			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-5	37	3	71			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-6	37	3	71			0.0002	0.0002			0.0002	nonpar	.99	**
pH	SU	SWW-14	31	7	100	7.4206	0.2894	7.2000	7.0700	7.4206	7.4206	5.83 - 9.01	normal		
pH	SU	SWW-15	33	2	66	6.7339	0.3981	6.4400	6.4100	6.7339	6.7339	4.54 - 8.92	normal		
pH	SU	SWW-18R	35	3	69	6.9283	0.2999	6.6100	6.6100	6.9283	6.9283	5.28 - 8.58	normal		
pH	SU	SWW-19	35	3	69	6.4606	0.3406	6.7300	6.4100	6.4746	6.4606	4.59 - 8.33	normal		
pH	SU	SWW-30	24	3	28	7.0067	0.3148	6.8700	6.5800	7.0067	7.0067	5.28 - 8.74	normal		
pH	SU	SWW-31	24	3	28	6.6975	0.3104	6.5300	6.2800	6.6975	6.6975	4.99 - 8.40	normal		
pH	SU	SWW-5	35	3	101	6.9220	0.2829	6.5300	6.4900	6.9220	6.9220	5.37 - 8.48	normal		
pH	SU	SWW-6	35	3	93	7.3640	0.2283	7.1800	7.3400	7.3640	7.3640	6.11 - 8.62	normal		
Selenium, dissolved	mg/L	SWW-14	33	7	70			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-15	33	2	66			0.0020	0.0027			0.0020	nonpar	.99	**

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Selenium, dissolved	mg/L	SWW-18R	36	3	69			0.0020	0.0020			0.0050	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-19	36	3	69			0.0020	0.0100			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-30	25	3	28			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-31	25	3	28			0.0020	0.0024			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-5	37	3	71			0.0033	0.0020			0.0064	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-6	37	3	71			0.0020	0.0020			0.0050	nonpar	.99	**
Sodium, dissolved	mg/L	SWW-14	33	7	93	92.7667	14.1788	75.2000	80.2000	92.7667	92.7667	170.7500	normal		
Sodium, dissolved	mg/L	SWW-15	33	2	65	12.3815	2.0270	11.4000	12.1000	12.3815	12.3815	23.5301	normal		
Sodium, dissolved	mg/L	SWW-18R	36	3	69	129.5083	37.2087	165.0000	166.0000	137.6785	146.2636	334.1565	normal		
Sodium, dissolved	mg/L	SWW-19	36	3	69	96.9806	28.9722	78.3000	32.3000	96.9806	96.9806	256.3277	normal		
Sodium, dissolved	mg/L	SWW-30	25	3	28	19.0600	2.3833	17.6000	18.8000	19.0600	19.0600	32.1680	normal		
Sodium, dissolved	mg/L	SWW-31	25	3	28	22.9360	5.9322	12.6000	10.2000	22.9360	22.9360	55.5634	normal		
Sodium, dissolved	mg/L	SWW-5	37	3	94	39.9162	15.6908	32.7000	33.5000	39.9162	39.9162	126.2156	normal		
Sodium, dissolved	mg/L	SWW-6	37	3	94	124.7297	7.0854	113.0000	119.0000	124.7297	124.7297	163.6994	normal		
Specific conductance-field	umhos/cm	SWW-14	31	7	100	1207.7387	145.1953	1080.0000	1200.0000	1207.7387	1207.7387	2006.3130	normal		
Specific conductance-field	umhos/cm	SWW-15	33	2	66	488.3191	65.6662	330.0000	430.0000	488.3191	488.3191	849.4833	normal		
Specific conductance-field	umhos/cm	SWW-18R	35	3	69	3352.5529	497.4078	3100.0000	3150.0000	3352.5529	3352.5529	6088.2959	normal		
Specific conductance-field	umhos/cm	SWW-19	35	3	69	3539.7326	565.4114	1530.0000	880.0000	3539.7326	3539.7326	6649.4952	normal		
Specific conductance-field	umhos/cm	SWW-30	25	3	28	733.7932	62.6789	690.0000	750.0000	733.7932	733.7932	1078.5273	normal		
Specific conductance-field	umhos/cm	SWW-31	25	3	28	826.4024	198.6312	560.0000	640.0000	826.4024	826.4024	1918.8739	normal		
Specific conductance-field	umhos/cm	SWW-5	35	3	102	2529.8551	289.4013	2060.0000	2090.0000	2529.8551	2529.8551	4121.5623	normal		
Specific conductance-field	umhos/cm	SWW-6	35	3	93	928.1711	43.3658	770.0000	820.0000	928.1711	928.1711	1166.6833	normal		
Sulfate	mg/L	SWW-14	33	7	102	162.9939	49.4039	234.0000	231.0000	433.8535	464.8066	434.7151	normal		
Sulfate	mg/L	SWW-15	33	2	66	128.5576	21.8734	94.5000	75.0000	128.5576	128.5576	248.8614	normal		
Sulfate	mg/L	SWW-18R	35	3	70	1163.8857	462.0500	607.0000	781.0000	1163.8857	1163.8857	3705.1605	normal		
Sulfate	mg/L	SWW-19	36	3	70	1375.8889	468.6968	545.0000	252.0000	1375.8889	1375.8889	3953.7212	normal		
Sulfate	mg/L	SWW-30	25	3	28	38.7880	8.7710	49.6000	34.4000	43.0217	38.7880	87.0287	normal		
Sulfate	mg/L	SWW-31	25	3	28	193.0240	85.3440	66.5000	119.0000	193.0240	193.0240	662.4162	normal		
Sulfate	mg/L	SWW-5	37	3	104	1278.7027	422.5445	1850.0000	509.0000	1533.0917	1278.7027	3602.6973	normal		
Sulfate	mg/L	SWW-6	37	3	95	15.3946	5.1654	10.0000	10.0000	15.3946	15.3946	43.8041	normal		
Total dissolved solids	mg/L	SWW-14	5	7	50										*
Total dissolved solids	mg/L	SWW-15	9	2	20	303.2222	37.9828	270.0000	291.0000	303.2222	303.2222	512.1277	normal		
Total dissolved solids	mg/L	SWW-18R	8	3	18	2857.5000	75.9229	2580.0000	2900.0000	2857.5000	2857.5000	3275.0759	normal		
Total dissolved solids	mg/L	SWW-19	9	3	18	2732.2222	678.0261	1120.0000	708.0000	2732.2222	2732.2222	6461.3660	normal		
Total dissolved solids	mg/L	SWW-30	8	3	11	439.8750	12.3455	421.0000	448.0000	439.8750	439.8750	507.7751	normal		
Total dissolved solids	mg/L	SWW-31	8	3	11	507.7500	93.5517	397.0000	471.0000	507.7500	507.7500	1022.2846	normal		
Total dissolved solids	mg/L	SWW-5	9	3	50	2208.8889	91.4391	2070.0000	1940.0000	2208.8889	2208.8889	2711.8040	normal		
Total dissolved solids	mg/L	SWW-6	9	3	41	523.3333	16.9779	499.0000	508.0000	523.3333	523.3333	616.7119	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 3

Dixon's Test Outliers
1% Significance Level

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Chloride	mg/L	SWW-19	11/09/2022	127.0000		11/01/2004-11/09/2022	36	0.4273
Chloride	mg/L	SWW-30	11/16/2021	10.0000	< 10.0000	11/17/2011-11/09/2022	25	0.4893
Sulfate	mg/L	SWW-18R	05/31/2011	82.9000		11/01/2004-11/09/2022	36	0.4273
Total dissolved solids	mg/L	SWW-18R	11/08/2018	351.0000		11/08/2018-11/09/2022	9	0.6346

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

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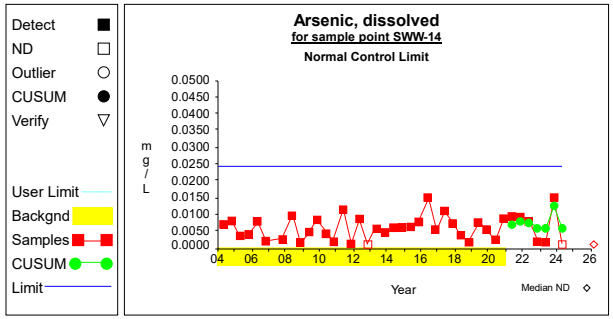
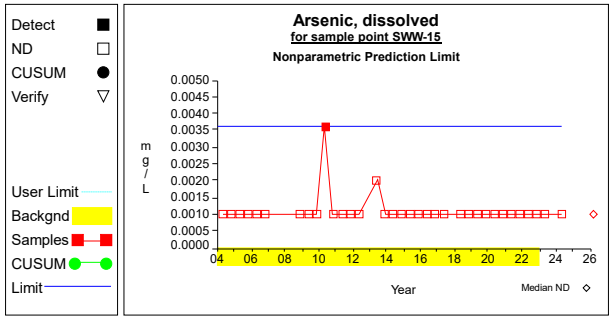
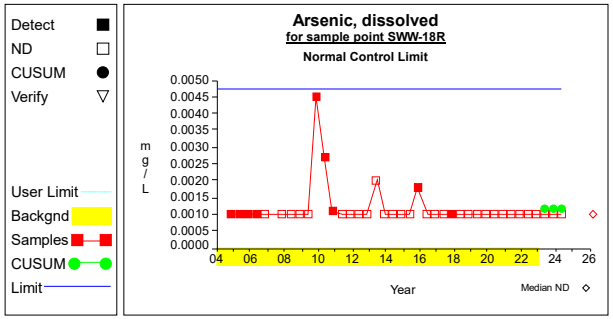
Intra-Well Control Charts / Prediction Limits



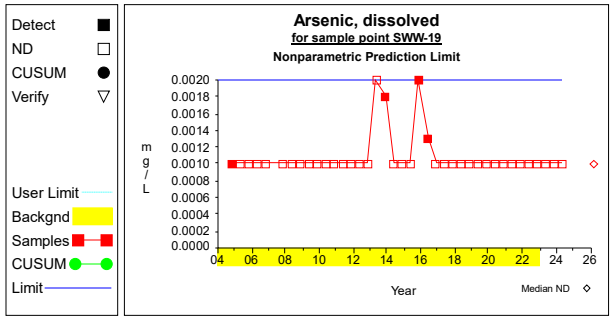
Graph 1



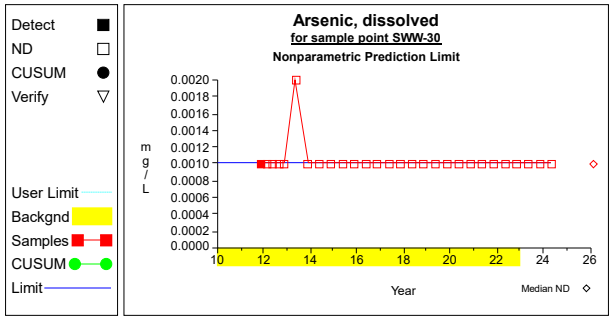
Graph 2



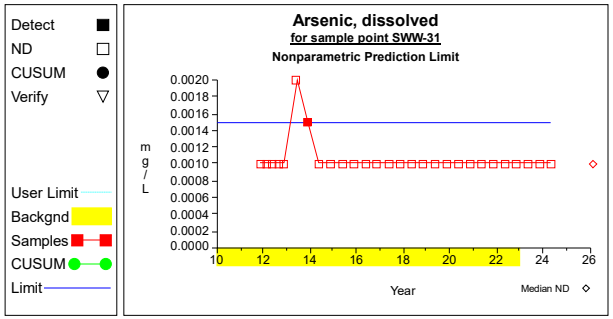
Graph 3



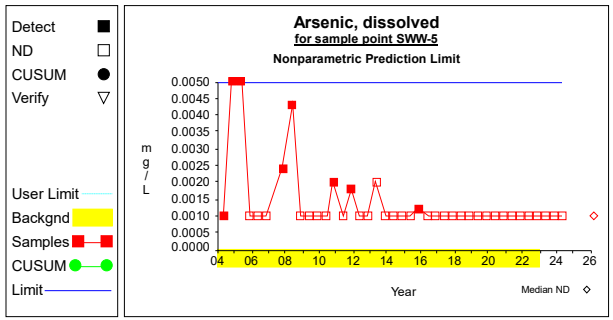
Graph 4



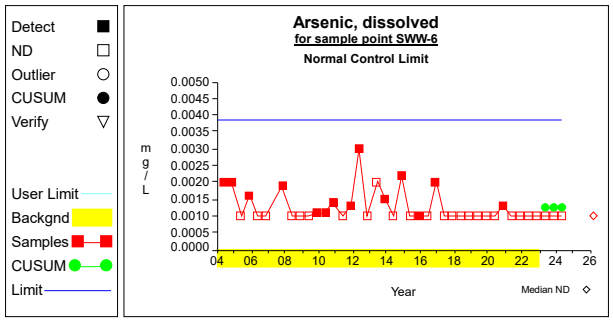
Graph 5



Graph 6

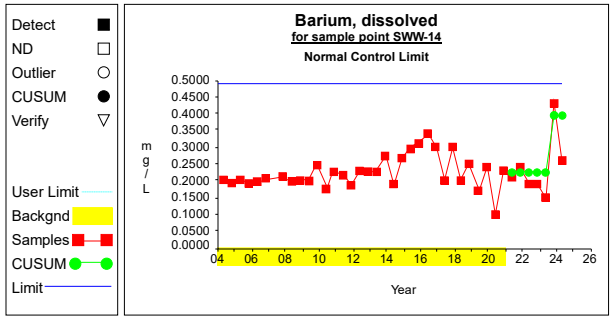


Graph 7

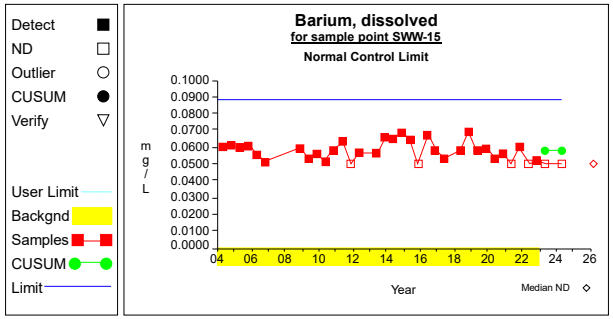


Graph 8

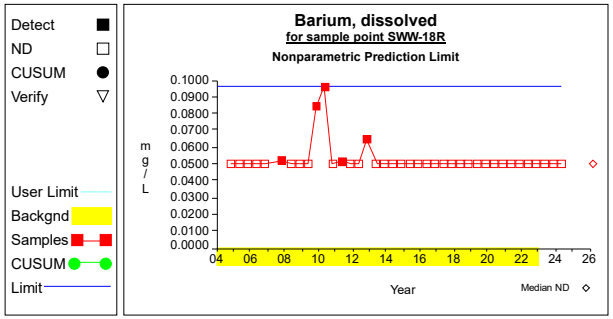
Intra-Well Control Charts / Prediction Limits



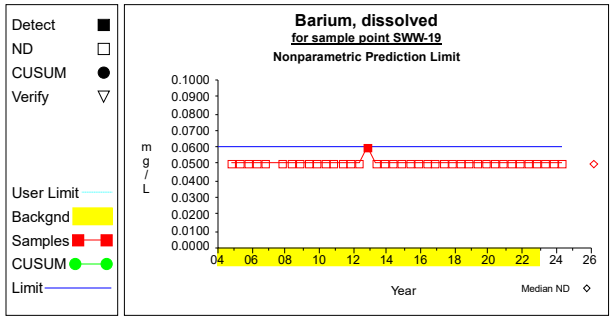
Graph 9



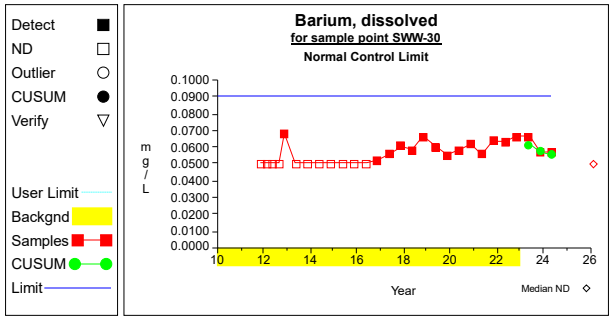
Graph 10



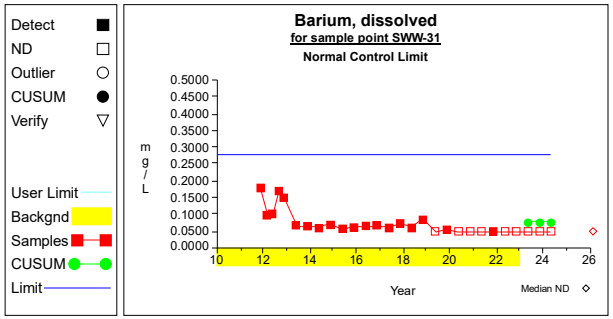
Graph 11



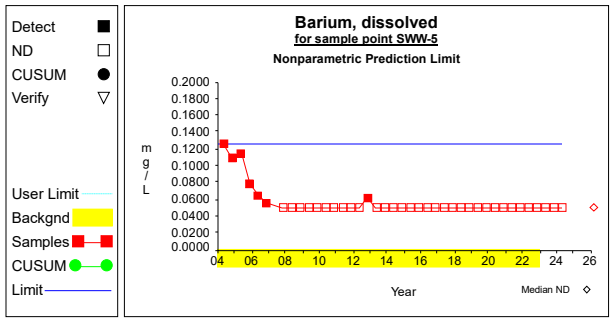
Graph 12



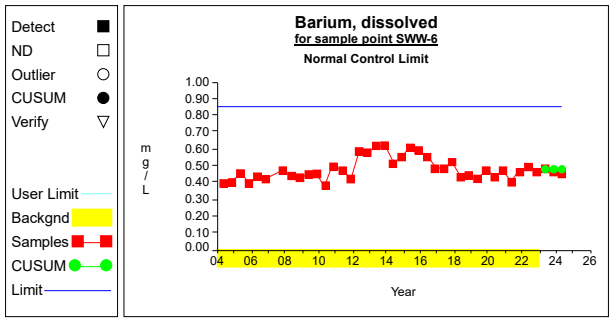
Graph 13



Graph 14

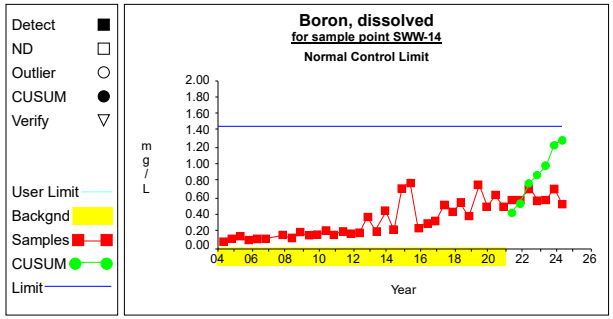


Graph 15

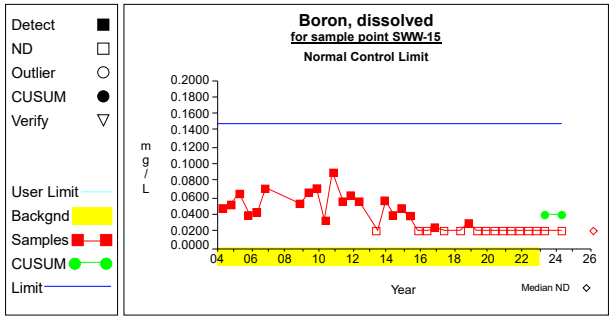


Graph 16

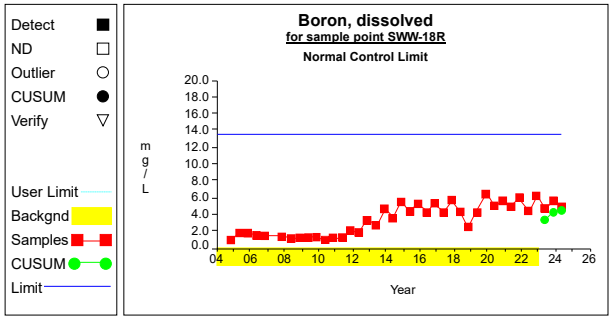
Intra-Well Control Charts / Prediction Limits



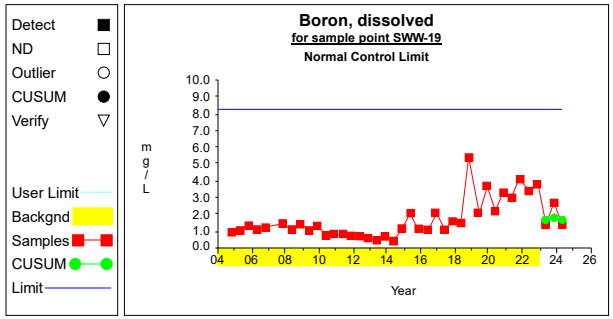
Graph 17



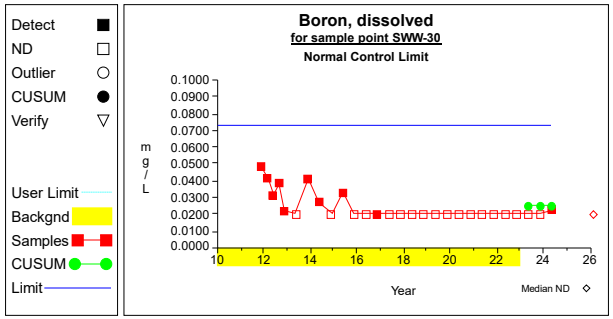
Graph 18



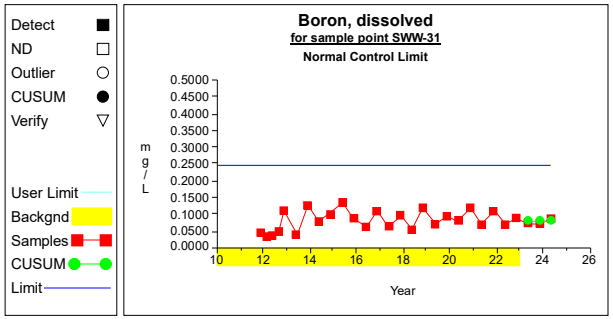
Graph 19



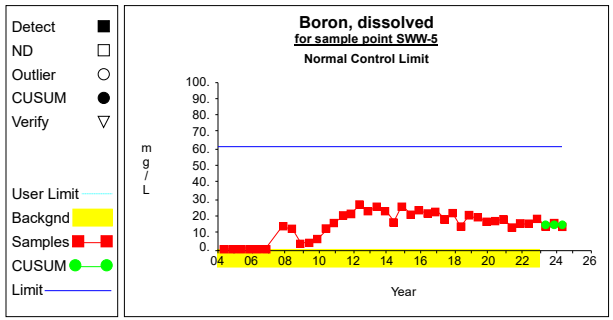
Graph 20



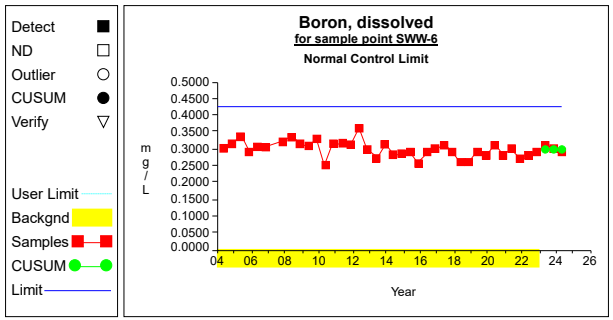
Graph 21



Graph 22

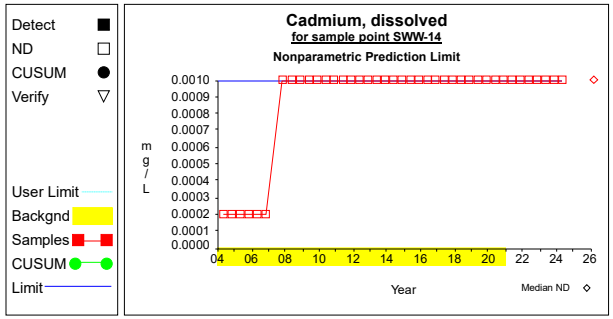


Graph 23

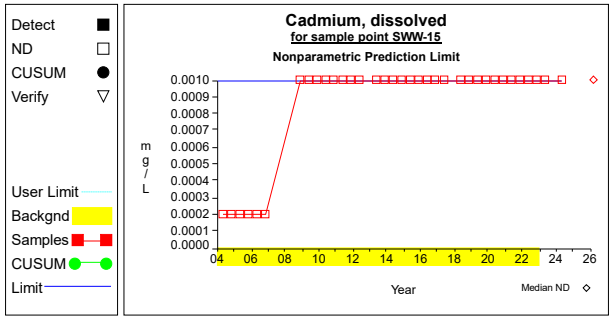


Graph 24

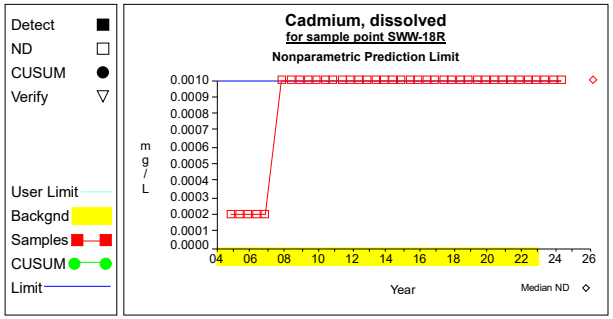
Intra-Well Control Charts / Prediction Limits



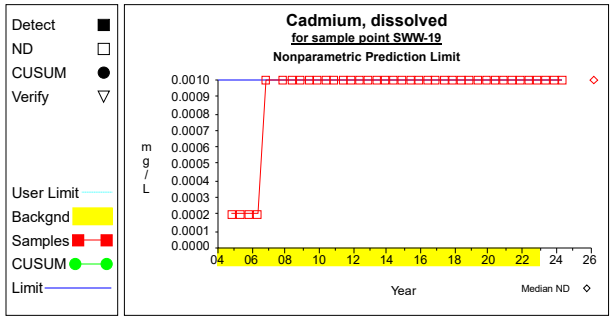
Graph 25



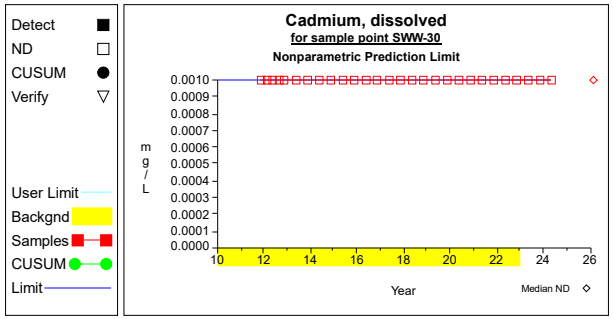
Graph 26



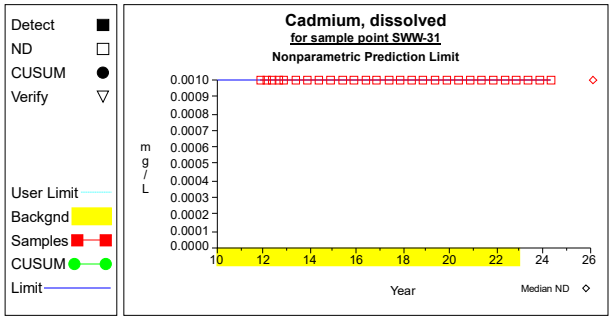
Graph 27



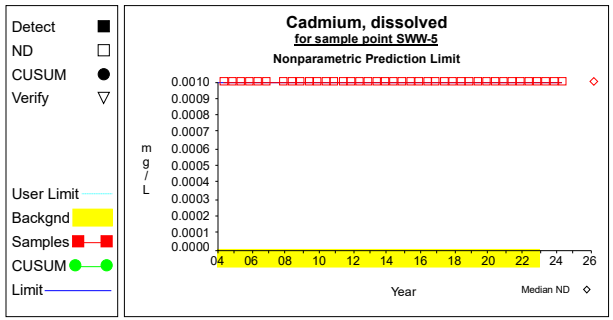
Graph 28



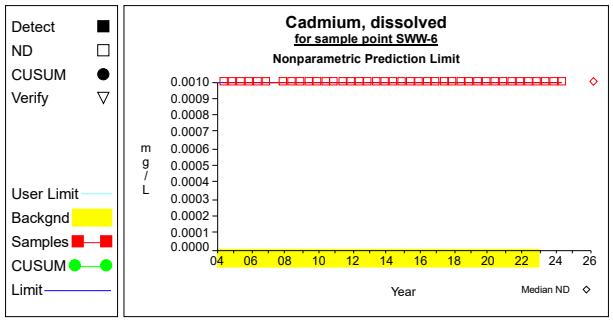
Graph 29



Graph 30

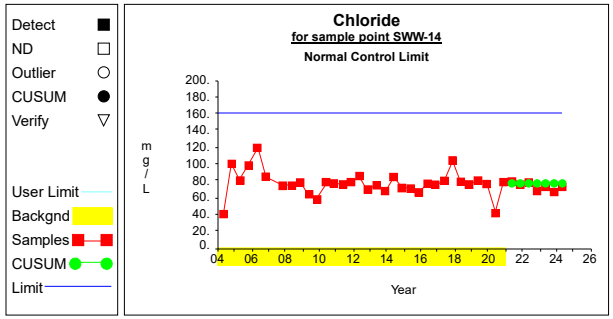


Graph 31

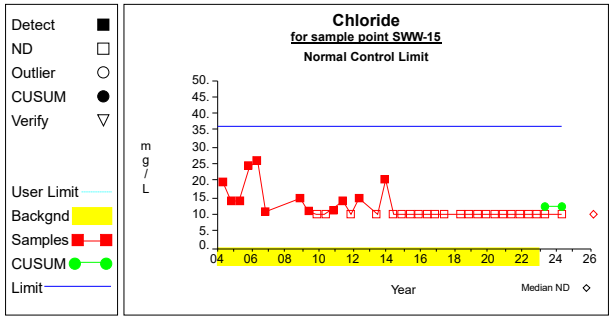


Graph 32

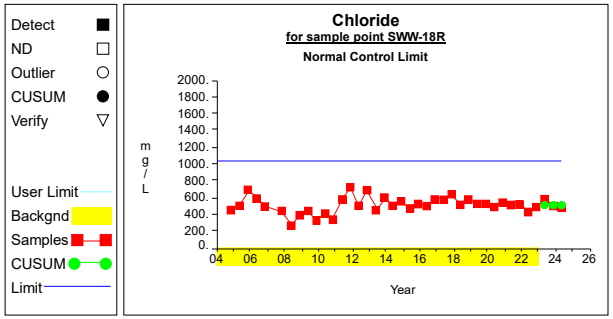
Intra-Well Control Charts / Prediction Limits



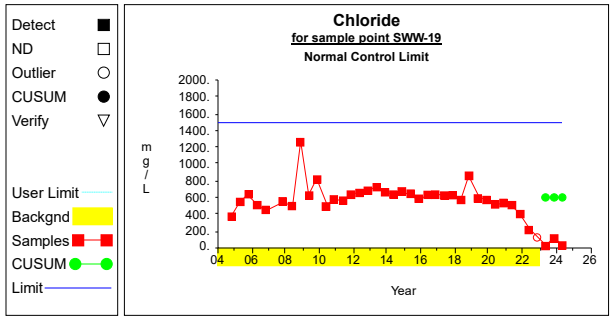
Graph 33



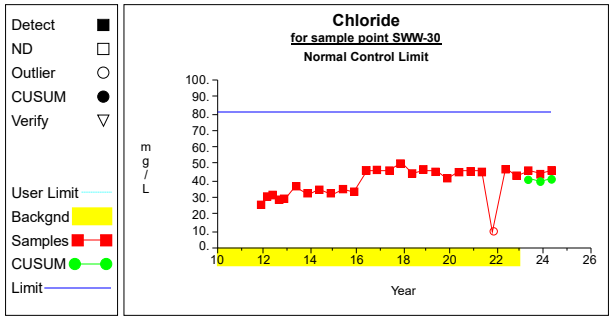
Graph 34



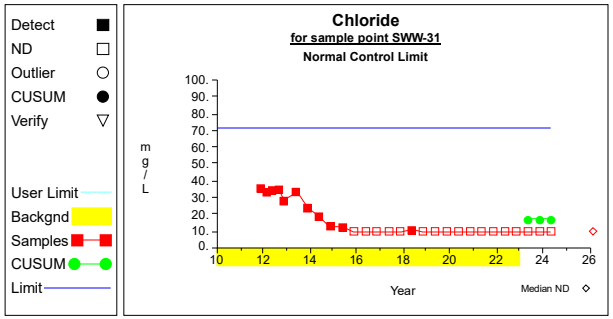
Graph 35



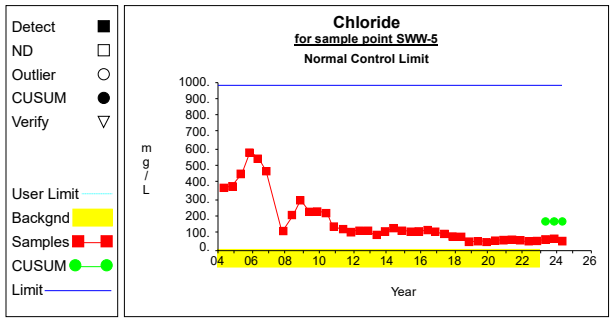
Graph 36



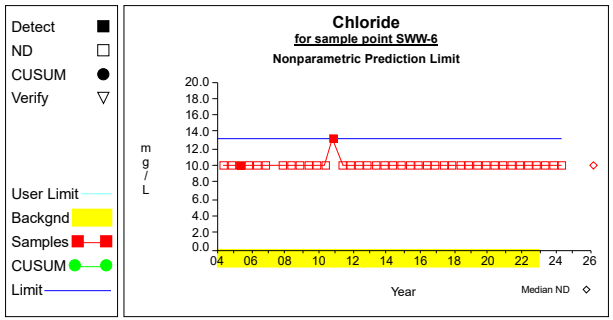
Graph 37



Graph 38

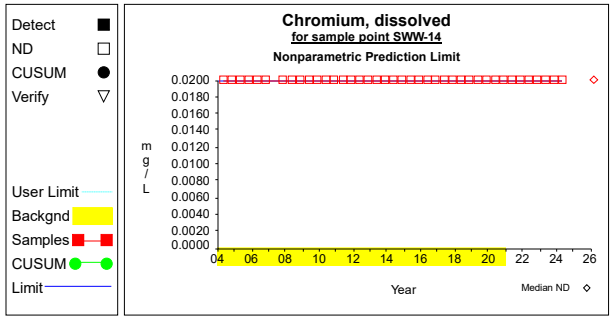


Graph 39

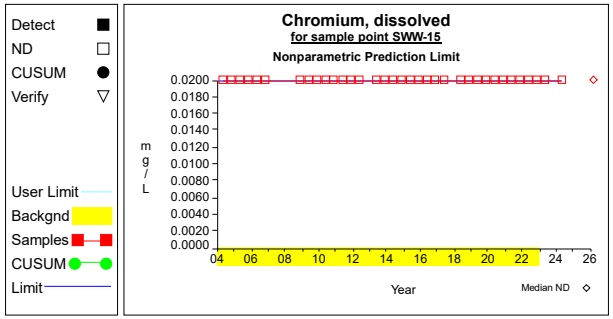


Graph 40

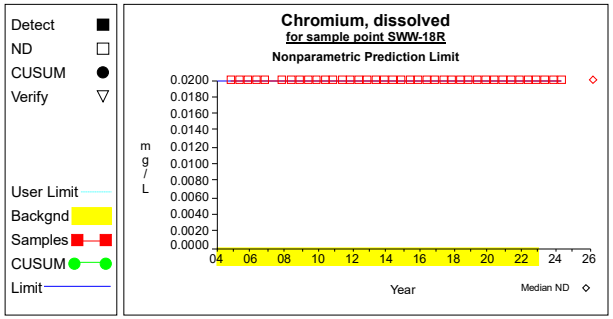
Intra-Well Control Charts / Prediction Limits



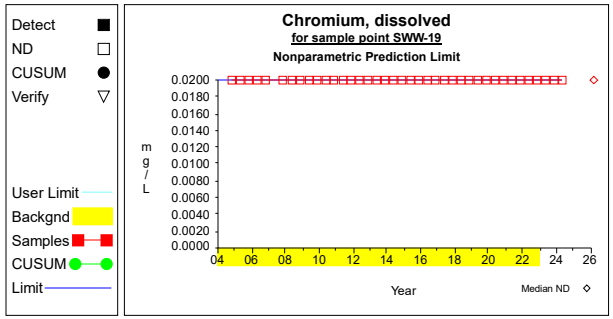
Graph 41



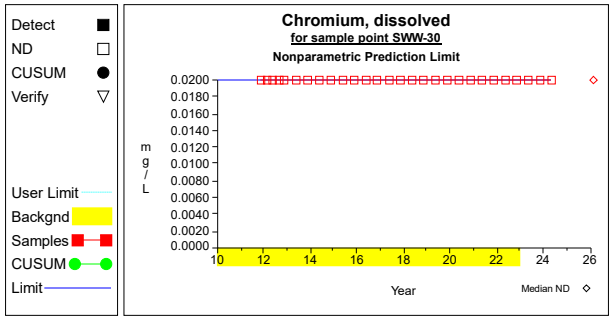
Graph 42



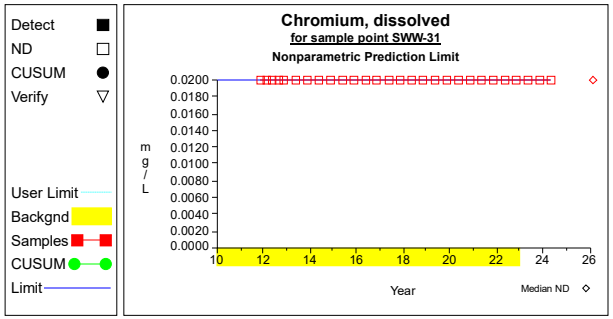
Graph 43



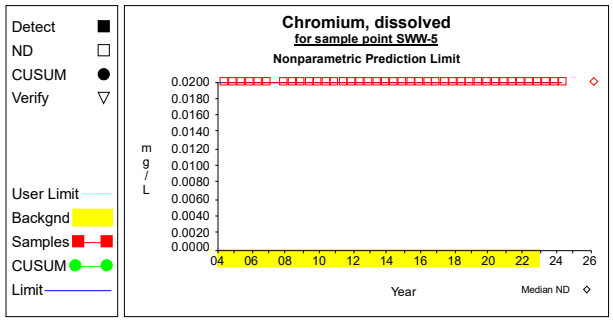
Graph 44



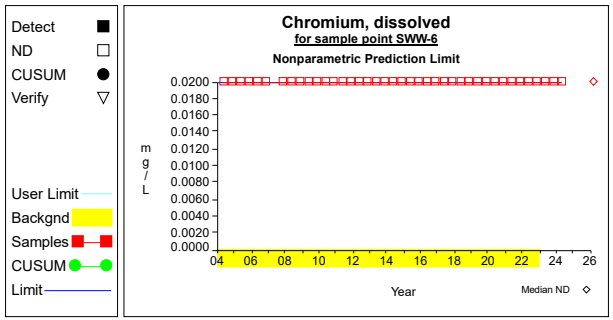
Graph 45



Graph 46

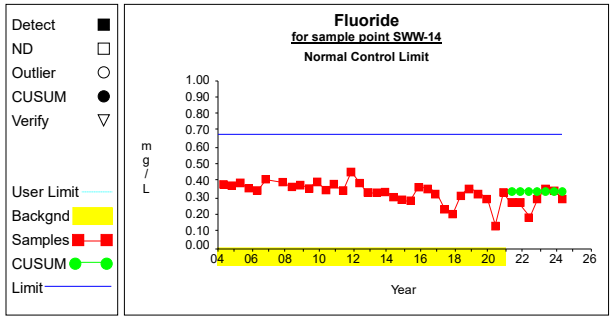


Graph 47

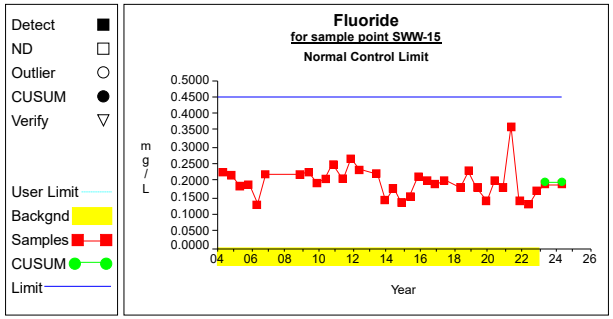


Graph 48

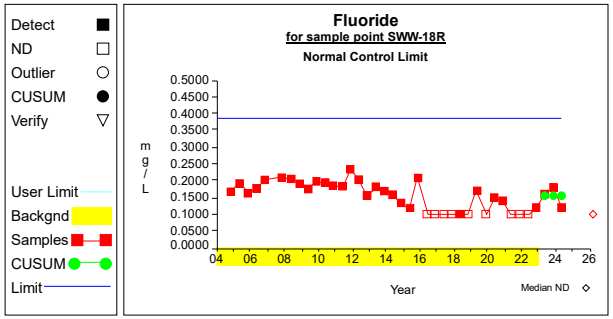
Intra-Well Control Charts / Prediction Limits



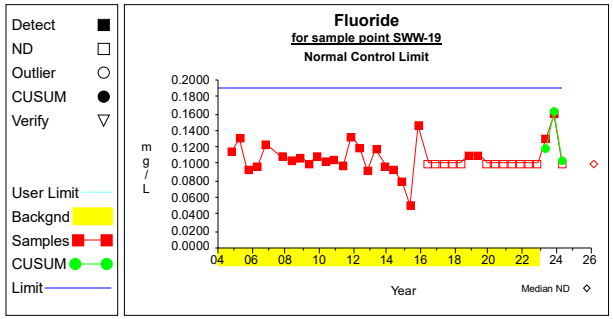
Graph 49



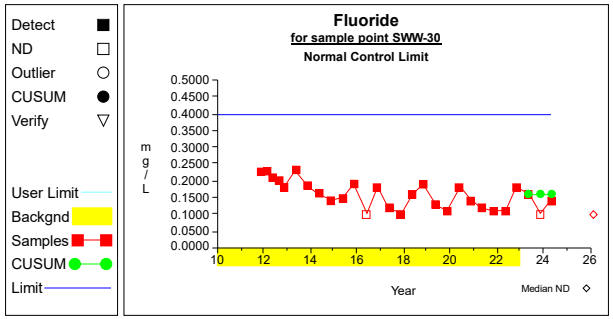
Graph 50



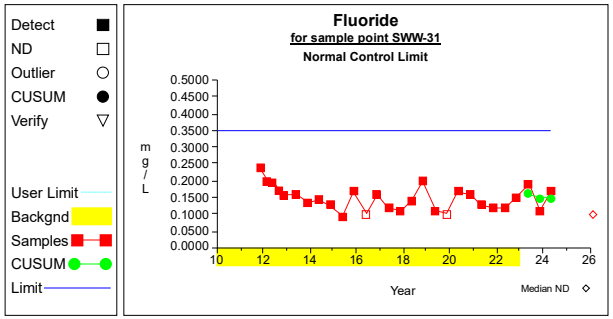
Graph 51



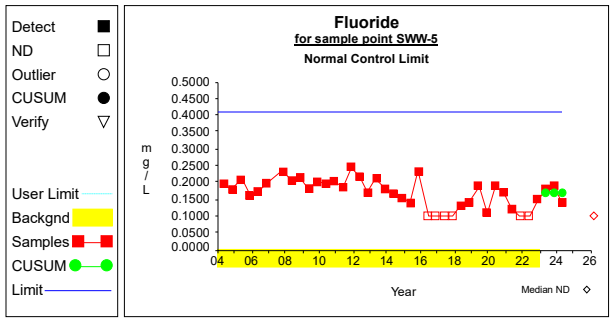
Graph 52



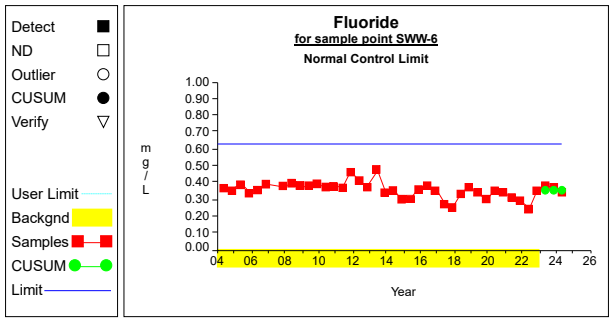
Graph 53



Graph 54

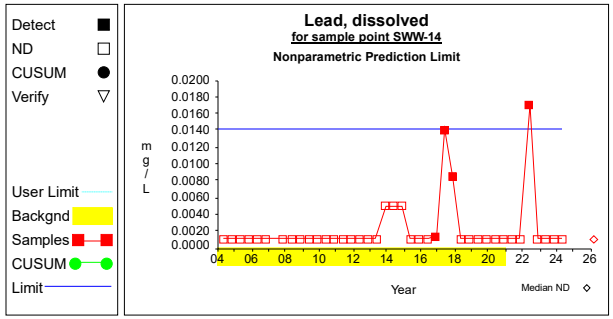


Graph 55

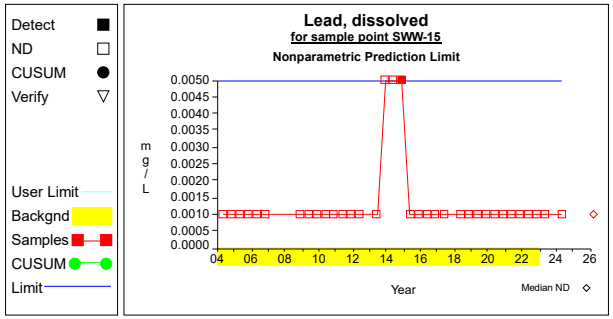


Graph 56

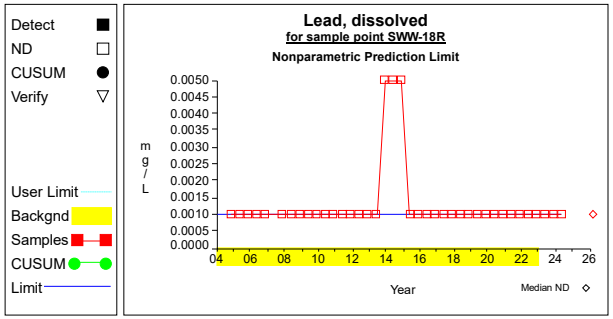
Intra-Well Control Charts / Prediction Limits



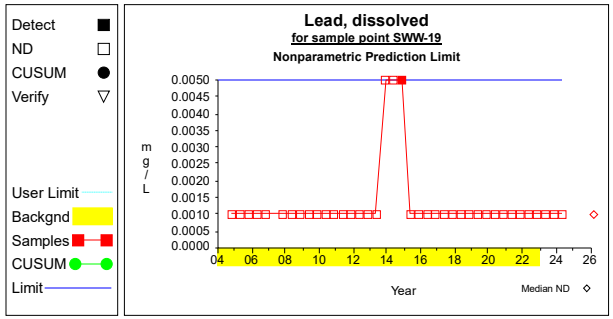
Graph 57



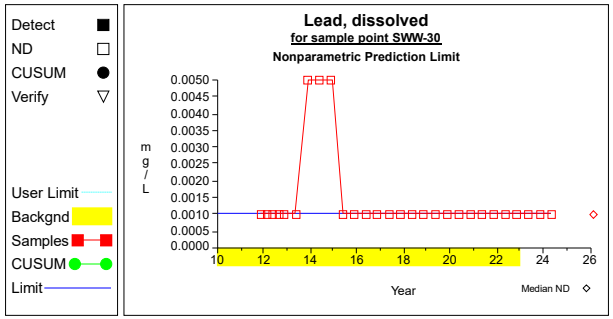
Graph 58



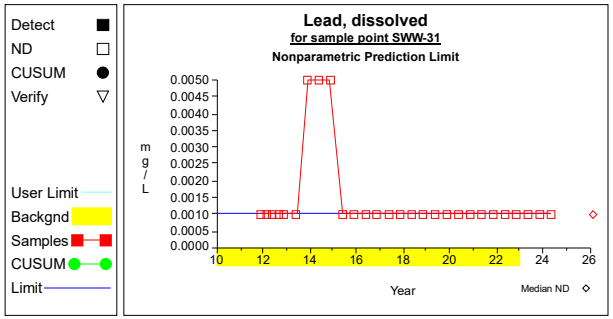
Graph 59



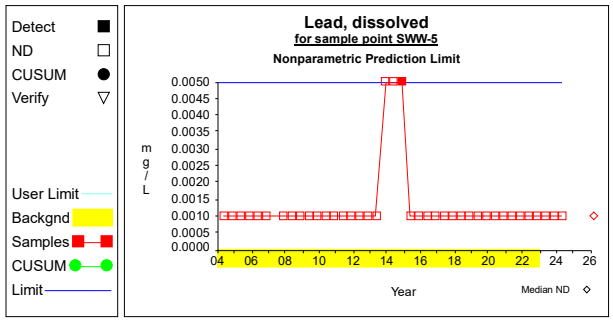
Graph 60



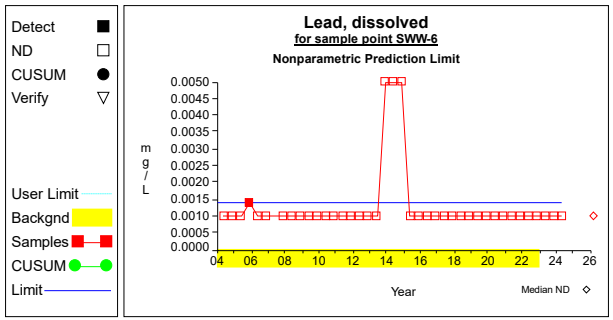
Graph 61



Graph 62

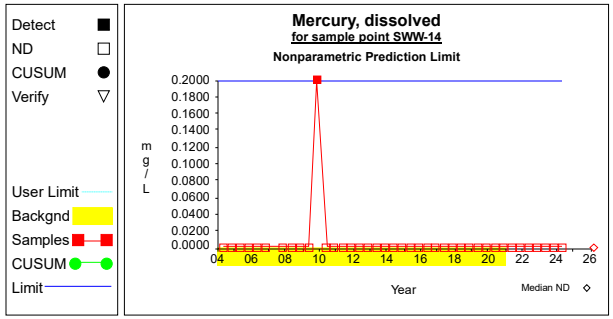


Graph 63

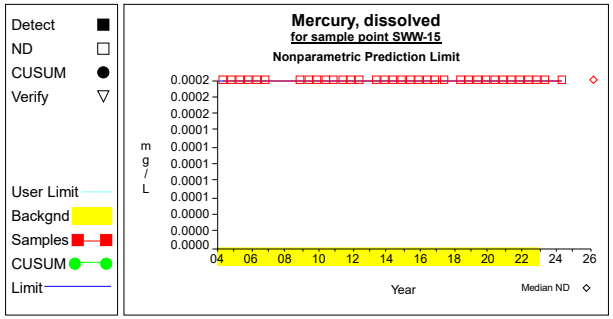


Graph 64

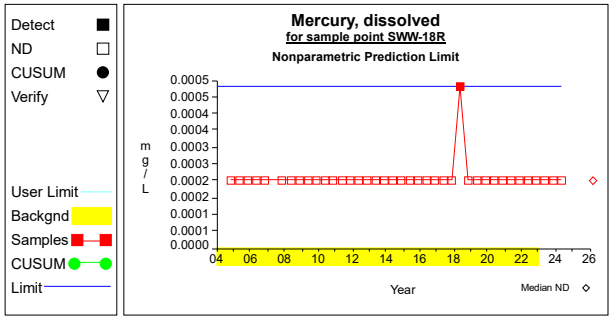
Intra-Well Control Charts / Prediction Limits



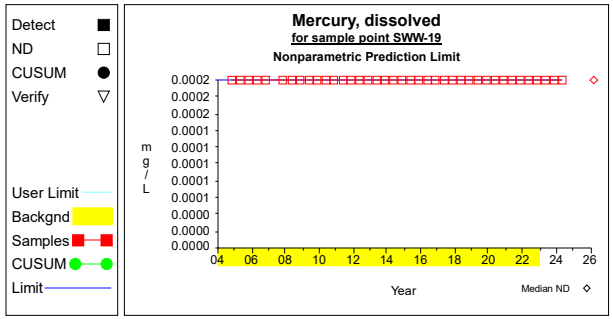
Graph 65



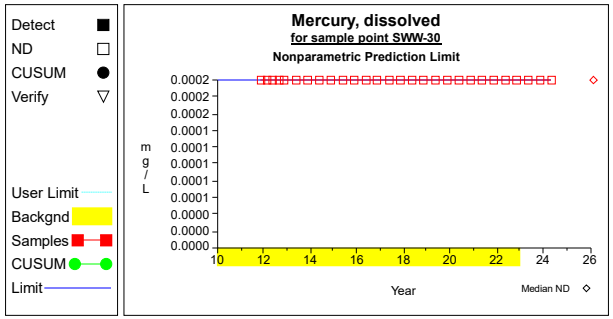
Graph 66



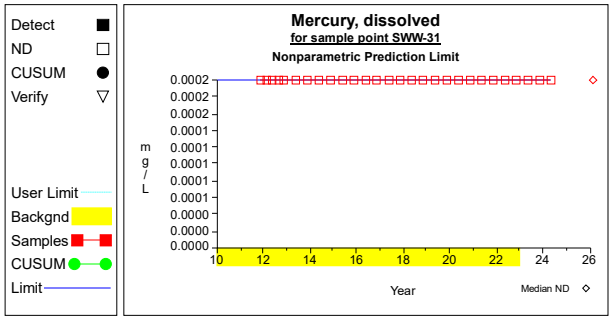
Graph 67



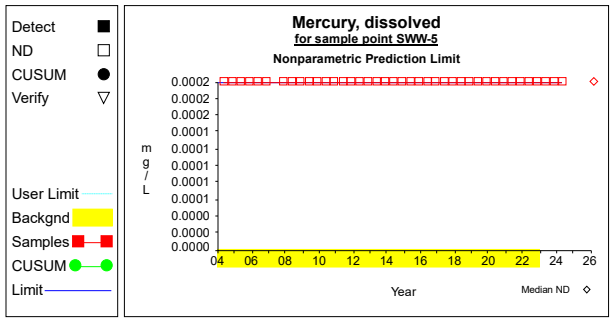
Graph 68



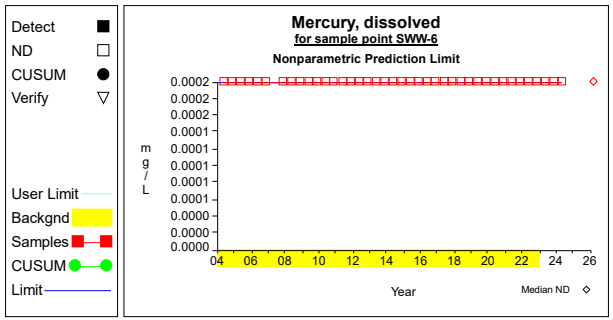
Graph 69



Graph 70

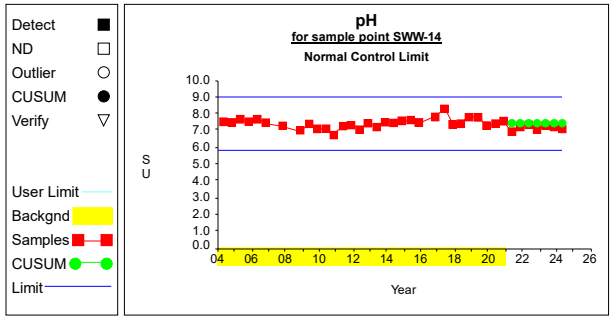


Graph 71

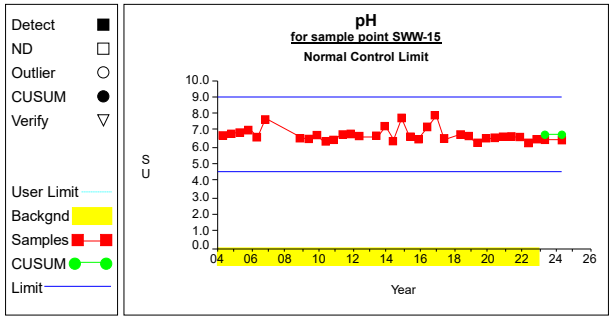


Graph 72

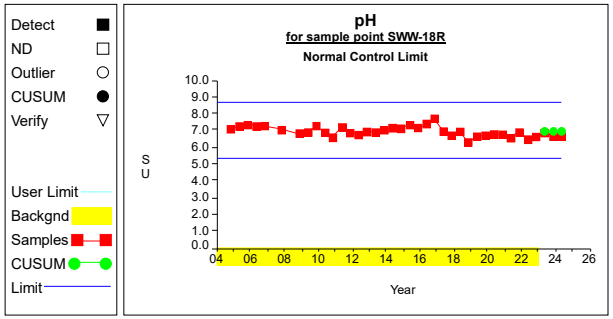
Intra-Well Control Charts / Prediction Limits



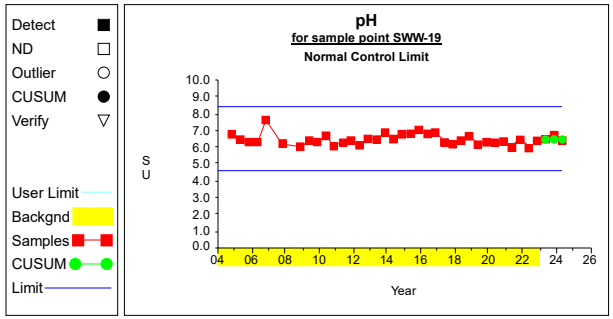
Graph 73



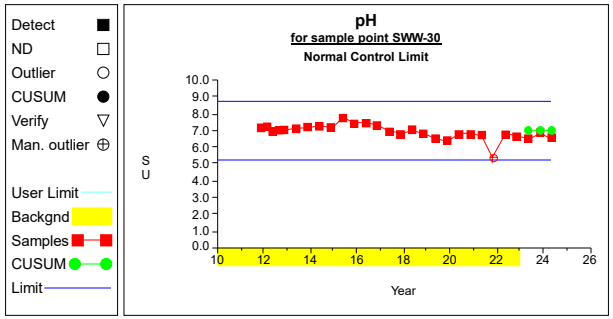
Graph 74



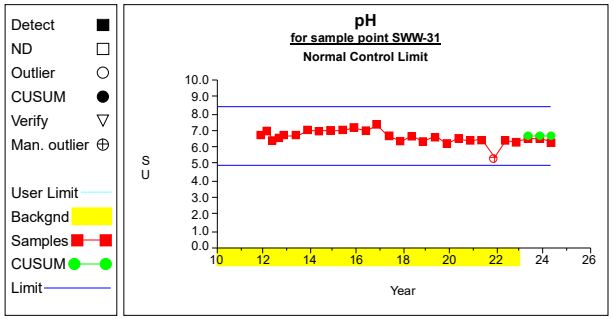
Graph 75



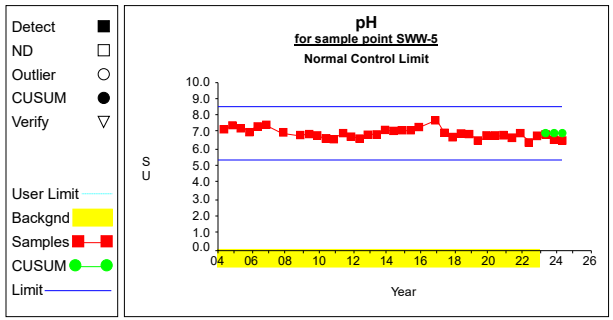
Graph 76



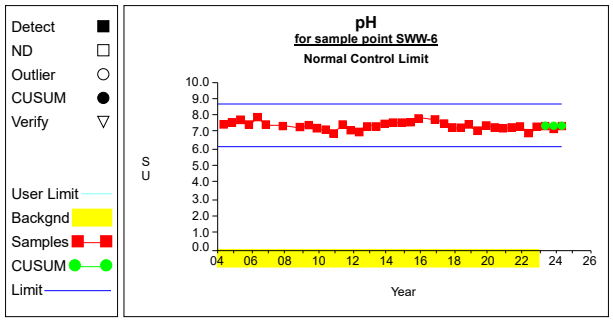
Graph 77



Graph 78

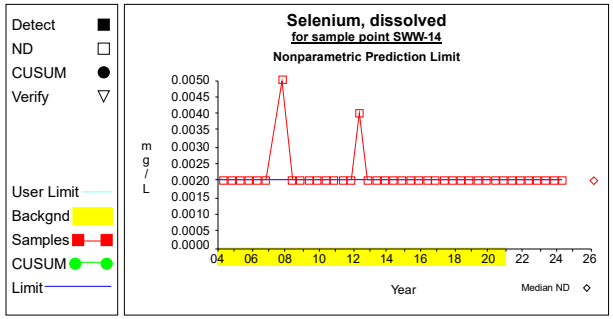


Graph 79

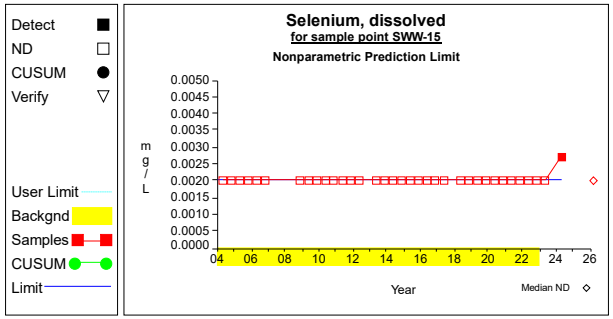


Graph 80

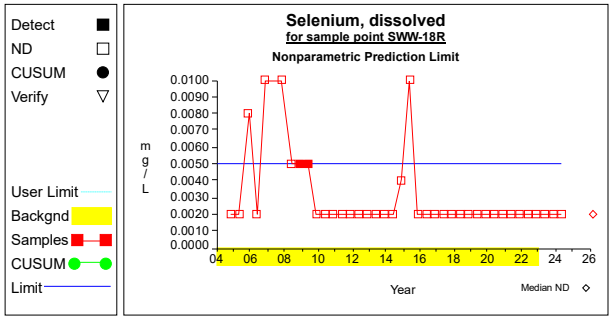
Intra-Well Control Charts / Prediction Limits



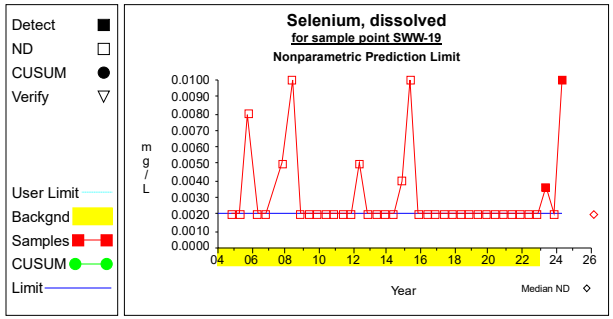
Graph 81



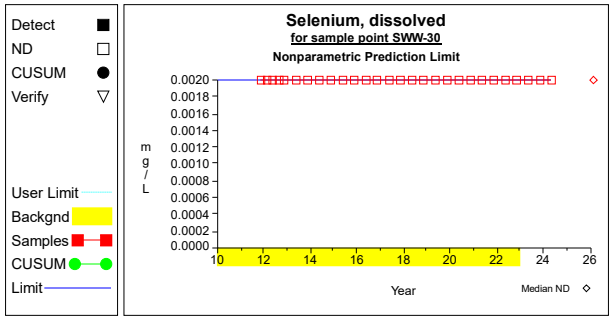
Graph 82



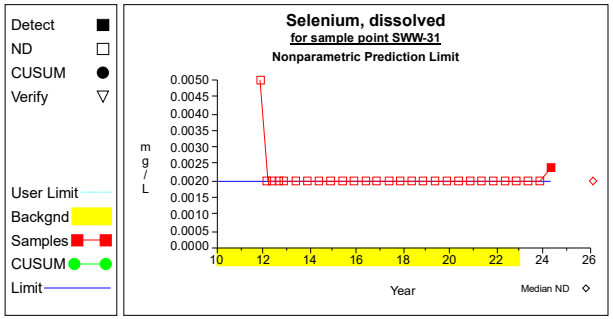
Graph 83



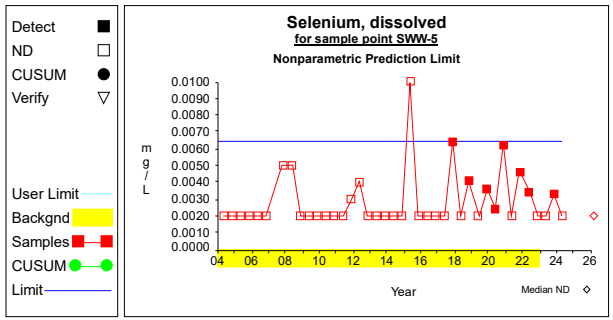
Graph 84



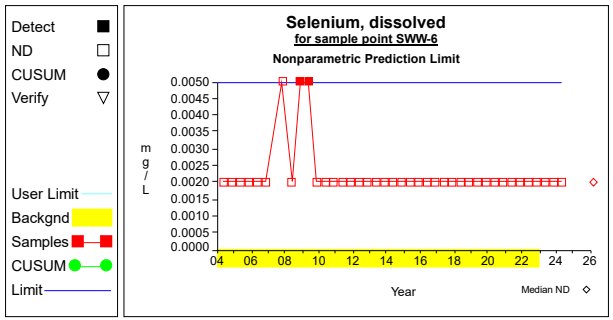
Graph 85



Graph 86

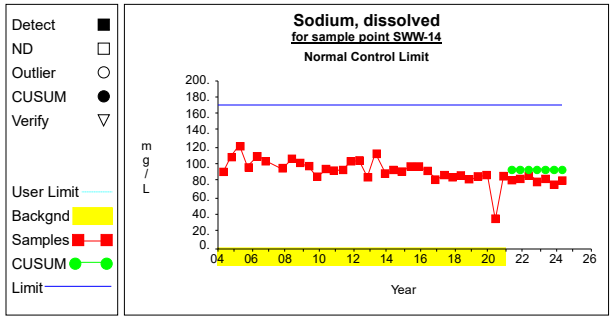


Graph 87

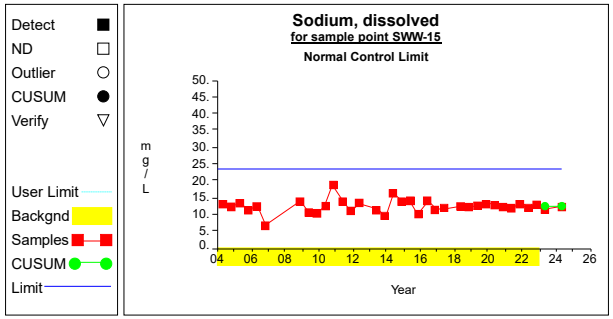


Graph 88

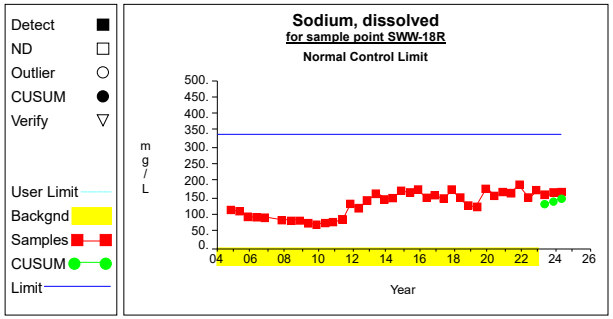
Intra-Well Control Charts / Prediction Limits



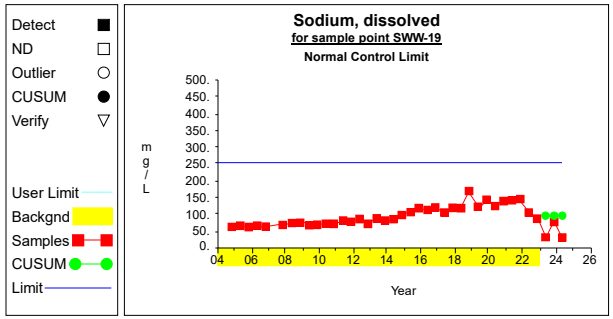
Graph 89



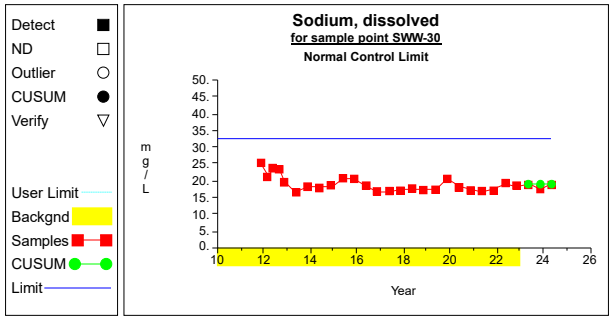
Graph 90



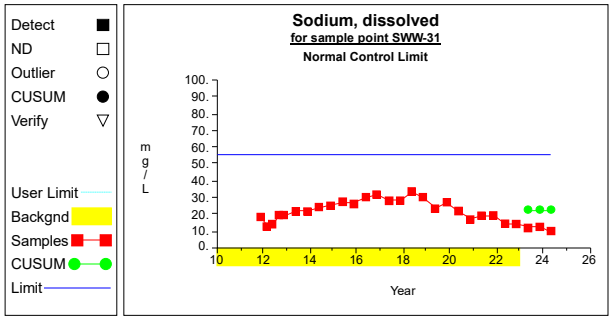
Graph 91



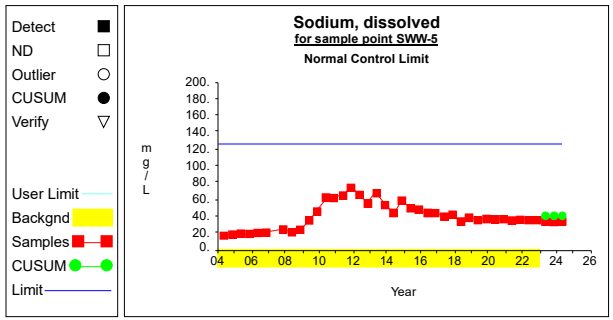
Graph 92



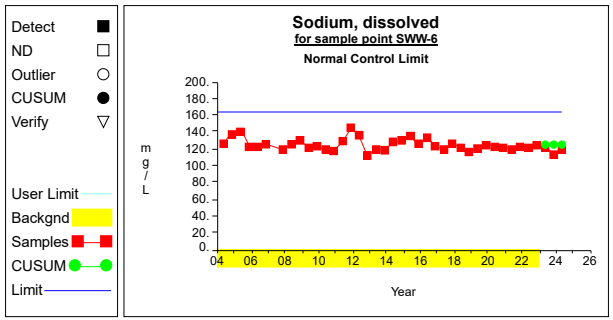
Graph 93



Graph 94

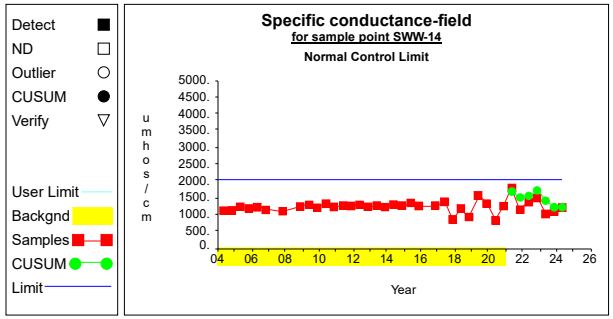


Graph 95

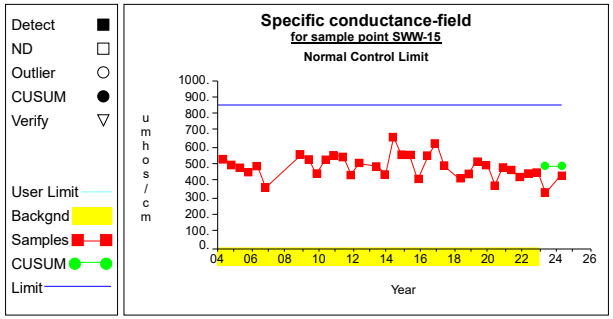


Graph 96

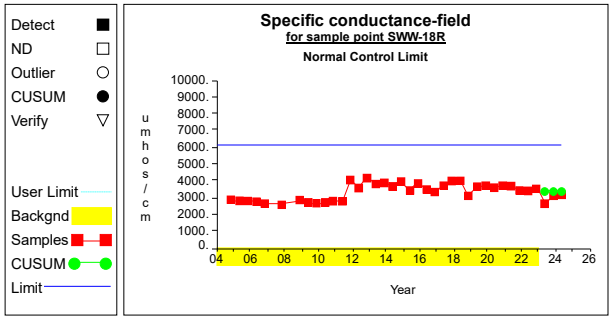
Intra-Well Control Charts / Prediction Limits



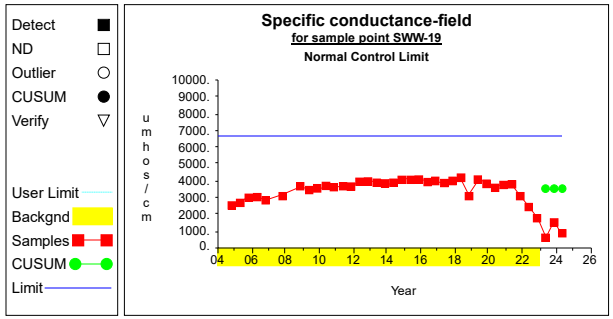
Graph 97



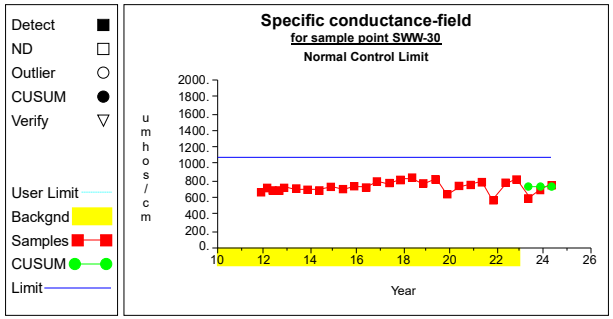
Graph 98



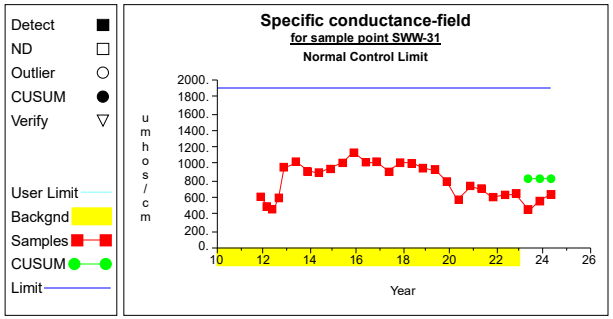
Graph 99



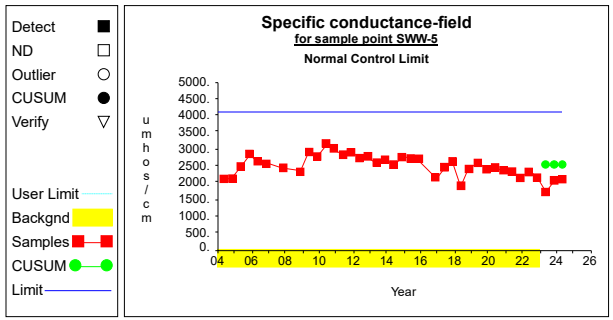
Graph 100



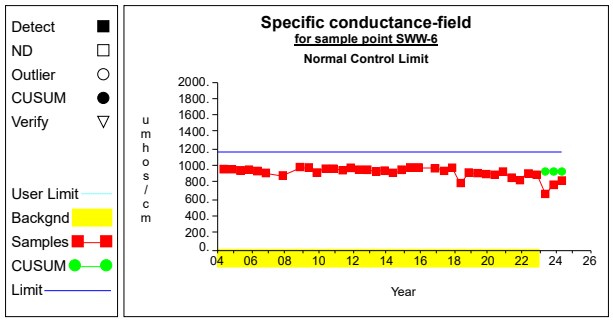
Graph 101



Graph 102

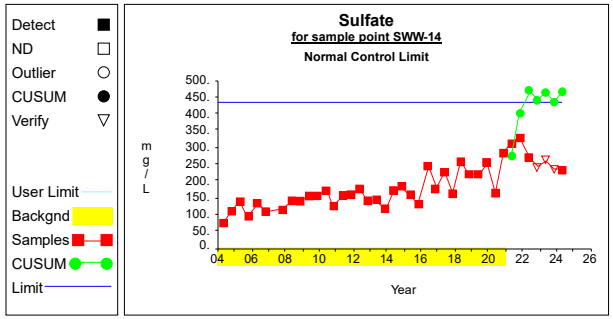


Graph 103

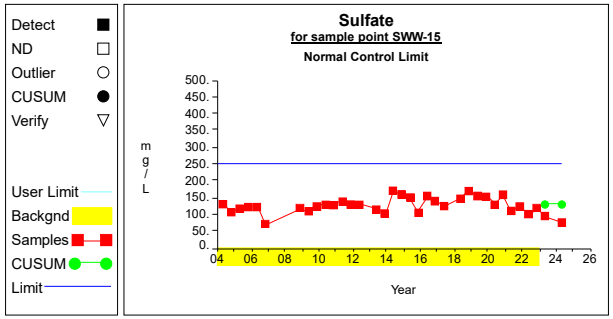


Graph 104

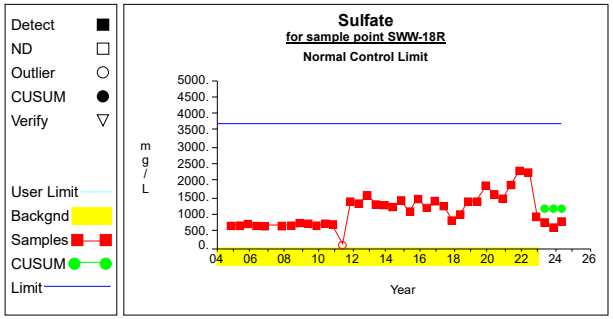
Intra-Well Control Charts / Prediction Limits



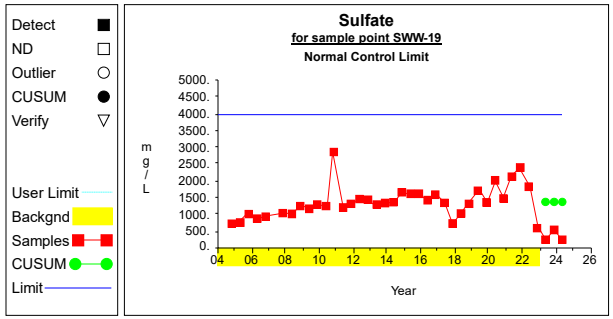
Graph 105



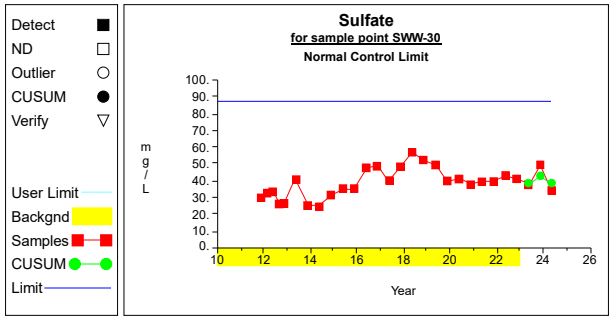
Graph 106



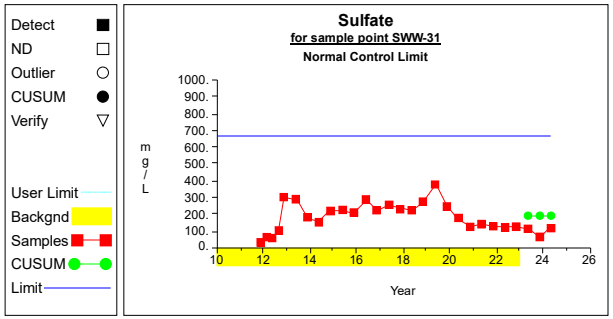
Graph 107



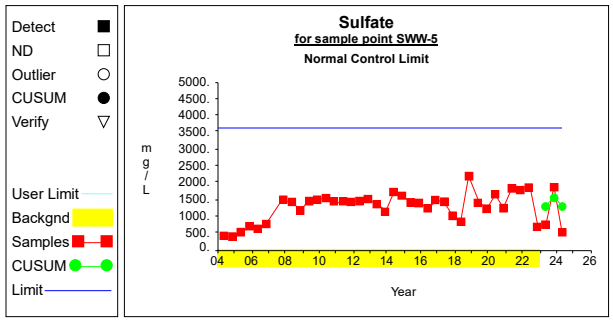
Graph 108



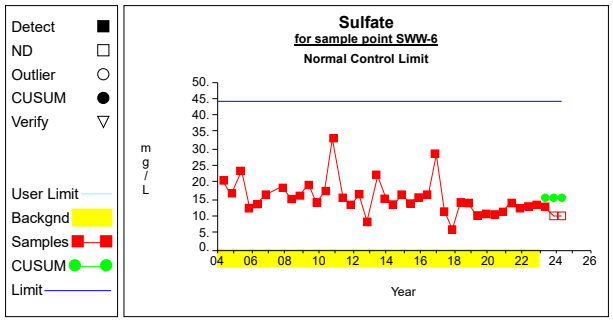
Graph 109



Graph 110

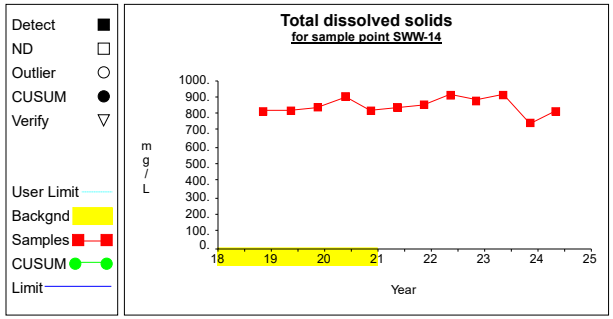


Graph 111

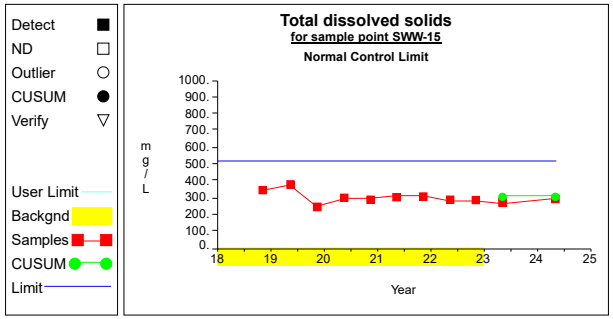


Graph 112

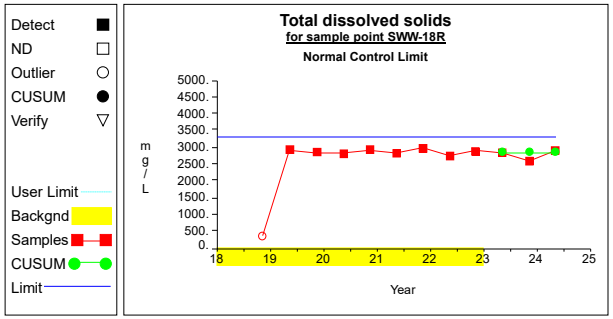
Intra-Well Control Charts / Prediction Limits



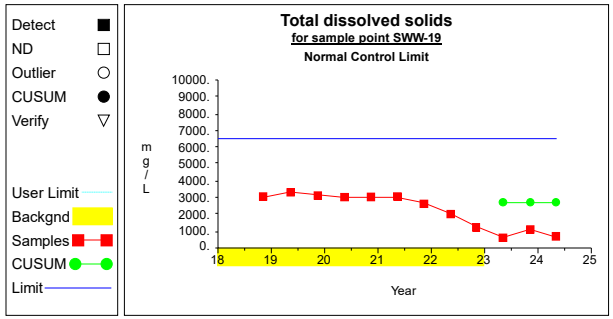
Graph 113



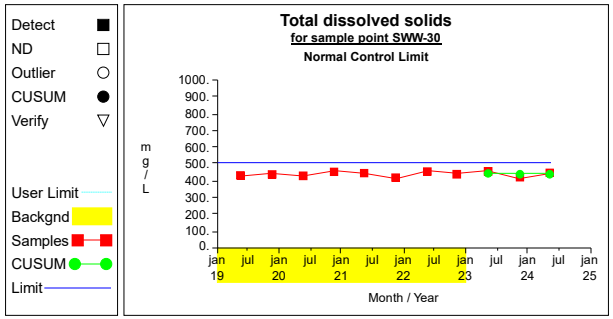
Graph 114



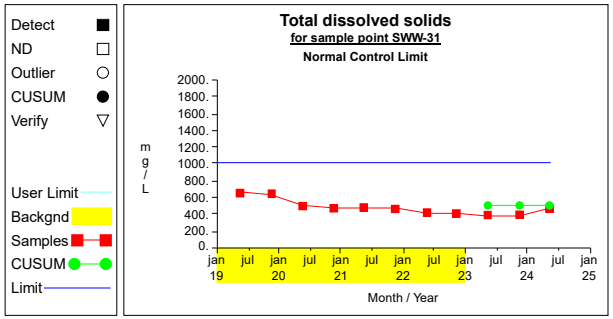
Graph 115



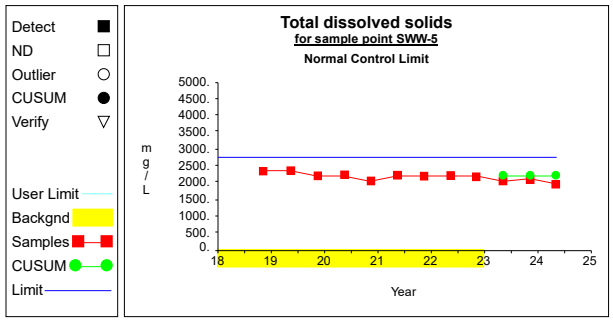
Graph 116



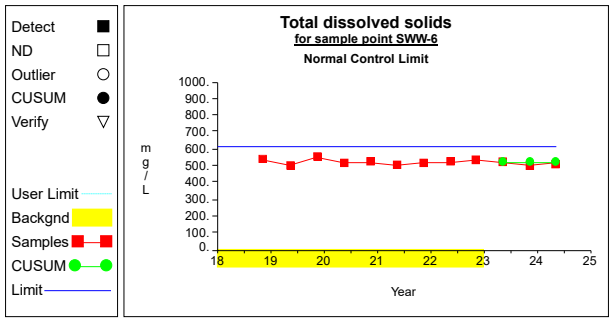
Graph 117



Graph 118

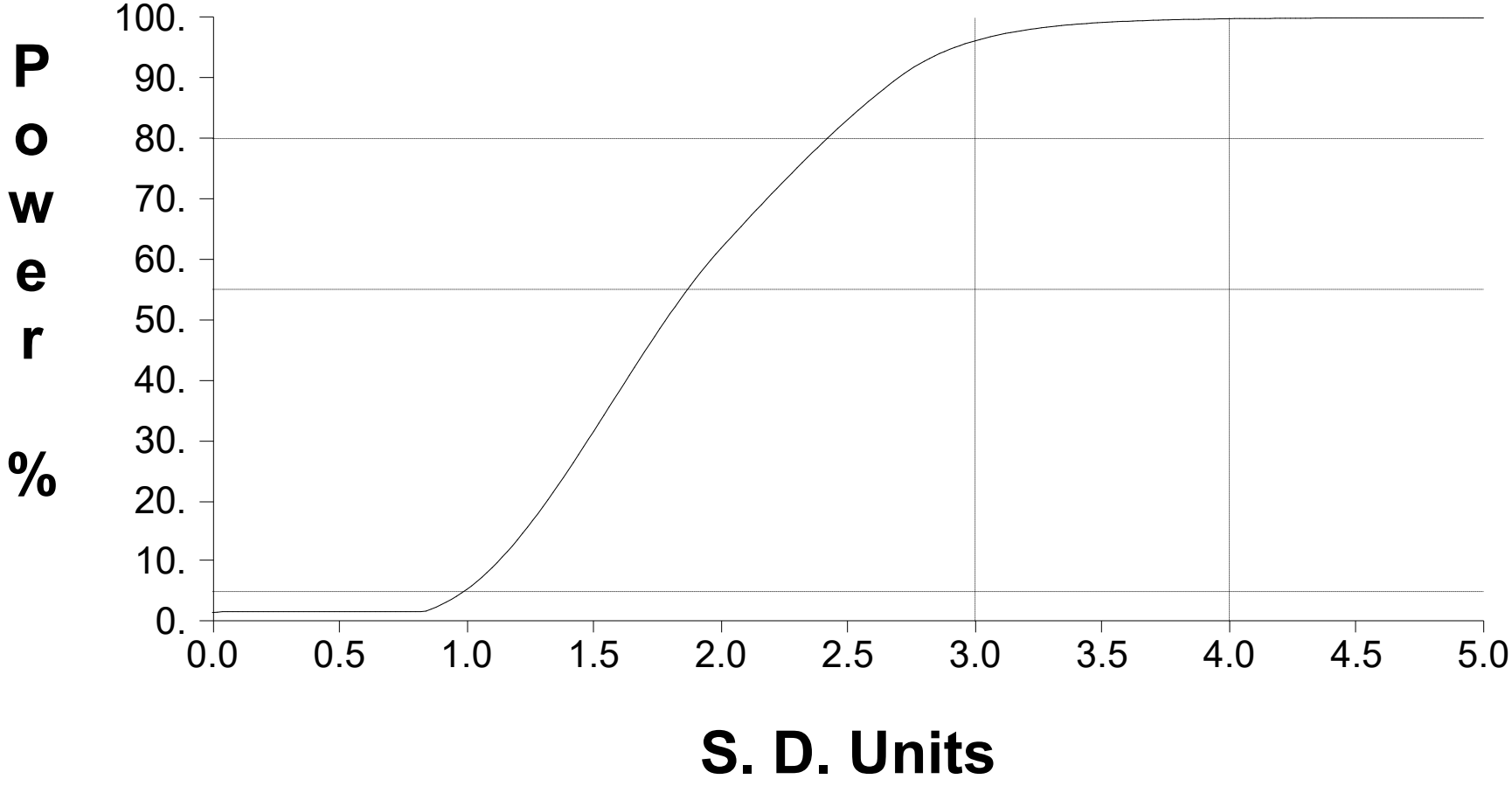


Graph 119



Graph 120

False Positive and False Negative Rates for Current Intra-Well Control Charts Monitoring Program



D2: DUMPStat Intrawell Statistical Analysis – Area 2A

Table 1

Analytical Data Summary for 5/6/2024 to 5/9/2024

Constituents	Units	SWW-20	SWW-21	SWW-22	SWW-23	SWW-24	SWW-25R	SWW-26	SWW-27	SWW-28
Arsenic, dissolved	mg/L	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.016
Barium, dissolved	mg/L	.069	<.050	<.050	<.050	.067	<.050	.080	.150	.230
Boron, dissolved	mg/L	1.10	13.20	10.30	15.60	.53	4.90	.34	<.02	.42
Cadmium, dissolved	mg/L	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Chloride	mg/L	225.0	426.0	359.0	221.0	88.1	250.0	49.7	12.7	<10.0
Chromium, dissolved	mg/L	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02
Fluoride	mg/L	.13	.15	.10	.14	.20	<.10	.14	.21	.77
Lead, dissolved	mg/L	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Mercury, dissolved	mg/L	<.0002	.0004	<.0002	<.0002	<.0002	<.0002	<.0002	<.0002	<.0002
pH	SU	6.11	6.60	6.48	6.59	6.63	6.51	6.36	6.58	7.13
Selenium, dissolved	mg/L	<.0020	<.0020	<.0020	<.0020	.0029	<.0020	<.0020	<.0020	<.0020
Sodium, dissolved	mg/L	42.2	146.0	71.9	91.0	21.2	127.0	21.3	9.1	127.0
Specific conductance-field	umhos/cm	1450	2860	2600	1970	1100	2070	1100	750	830
Sulfate	mg/L	260	531	415	279	166	451	360	118	<10
Total dissolved solids	mg/L	1070	2320	2260	1720	755	1650	880	529	506

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Arsenic, dissolved	mg/L	SWW-20	32	7	60			0.0010	0.0010			0.0043	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-21	31	7	59			0.0010	0.0010			0.0030	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-22	35	3	59			0.0010	0.0010			0.0056	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-23	35	3	51			0.0010	0.0010			0.0021	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-24	35	3	51			0.0010	0.0010			0.0019	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-25R	28	7	35			0.0010	0.0010			0.0014	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-26	28	3	31			0.0010	0.0010			0.0197	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-27	28	3	31			0.0010	0.0010			0.0022	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-28	28	3	31	0.0128	0.0065	0.0180	0.0160	0.0132	0.0128	0.0483	normal		
Barium, dissolved	mg/L	SWW-20	32	7	60	0.0717	0.0179	0.0710	0.0690	0.0717	0.0717	0.1699	normal		
Barium, dissolved	mg/L	SWW-21	31	7	59			0.0500	0.0500			0.0649	nonpar	.99	**
Barium, dissolved	mg/L	SWW-22	35	3	59			0.0500	0.0500			0.0995	nonpar	.99	**
Barium, dissolved	mg/L	SWW-23	35	3	51			0.0500	0.0500			0.0782	nonpar	.99	**
Barium, dissolved	mg/L	SWW-24	35	3	51	0.0670	0.0288	0.0500	0.0670	0.0670	0.0670	0.2251	normal		
Barium, dissolved	mg/L	SWW-25R	28	7	35	0.0756	0.0312	0.0500	0.0500	0.0756	0.0756	0.2475	normal		
Barium, dissolved	mg/L	SWW-26	28	3	31	0.1253	0.0631	0.0560	0.0800	0.1253	0.1253	0.4726	normal		
Barium, dissolved	mg/L	SWW-27	28	3	31	0.1345	0.0087	0.1400	0.1500	0.1345	0.1435	0.1823	normal		
Barium, dissolved	mg/L	SWW-28	28	3	31	0.2058	0.0437	0.1900	0.2300	0.2058	0.2058	0.4463	normal		
Boron, dissolved	mg/L	SWW-20	32	7	60	0.0741	0.0649	0.9000	1.1000	1.1586	1.3586	0.4310	normal		
Boron, dissolved	mg/L	SWW-21	31	7	59	8.2652	6.1173	12.7000	13.2000	15.9464	16.2933	41.9101	normal		
Boron, dissolved	mg/L	SWW-22	35	3	59	7.4646	4.0150	12.4000	10.3000	9.3888	9.2130	29.5468	normal		
Boron, dissolved	mg/L	SWW-23	35	3	51	21.7500	8.3198	23.4000	15.6000	21.7500	21.7500	67.5092	normal		
Boron, dissolved	mg/L	SWW-24	33	3	51	1.9141	1.2462	1.3000	0.5300	1.9141	1.9141	8.7680	normal		
Boron, dissolved	mg/L	SWW-25R	28	7	35	2.1095	2.1332	4.4000	4.9000	12.0530	13.2436	13.8423	normal		
Boron, dissolved	mg/L	SWW-26	28	3	31	0.3779	0.1734	0.5500	0.3400	0.4200	0.3779	1.3315	normal		
Boron, dissolved	mg/L	SWW-27	28	3	31	0.0468	0.0451	0.0200	0.0200	0.0468	0.0468	0.2949	normal		
Boron, dissolved	mg/L	SWW-28	28	3	31	0.3705	0.1624	0.4300	0.4200	0.3705	0.3705	1.2637	normal		
Cadmium, dissolved	mg/L	SWW-20	32	7	60			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-21	31	7	59			0.0010	0.0010			0.0013	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-22	35	3	59			0.0010	0.0010			0.0011	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-23	35	3	51			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-24	35	3	51			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-25R	28	7	35			0.0010	0.0010			0.0011	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-26	28	3	31			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-27	28	3	31			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-28	28	3	31			0.0010	0.0010			0.0010	nonpar	.99	**
Chloride	mg/L	SWW-20	32	7	60	116.1031	95.4894	255.0000	225.0000	617.7820	655.0618	641.2950	normal		
Chloride	mg/L	SWW-21	31	7	59	545.8710	179.9327	397.0000	426.0000	545.8710	545.8710	1535.5009	normal		
Chloride	mg/L	SWW-22	35	3	59	447.6286	112.2324	447.0000	359.0000	447.6286	447.6286	1064.9070	normal		
Chloride	mg/L	SWW-23	35	3	51	601.5429	262.3578	330.0000	221.0000	601.5429	601.5429	2044.5107	normal		
Chloride	mg/L	SWW-24	35	3	51	265.7000	155.5095	234.0000	88.1000	265.7000	265.7000	1121.0024	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Chloride	mg/L	SWW-25R	27	7	35	330.9852	207.9198	92.6000	250.0000	330.9852	330.9852	1474.5441	normal		
Chloride	mg/L	SWW-26	28	3	31	43.7714	33.9876	77.5000	49.7000	52.0093	43.7714	230.7030	normal		
Chloride	mg/L	SWW-27	28	3	31			10.7000	12.7000			12.4000	nonpar	.99	**
Chloride	mg/L	SWW-28	28	3	31	15.2786	10.6524	10.0000	10.0000	15.2786	15.2786	73.8668	normal		
Chromium, dissolved	mg/L	SWW-20	32	7	60			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-21	31	7	59			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-22	35	3	59			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-23	35	3	46			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-24	35	3	51			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-25R	28	7	35			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-26	28	3	31			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-27	28	3	31			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-28	28	3	31			0.0200	0.0200			0.0200	nonpar	.99	**
Fluoride	mg/L	SWW-20	32	7	60	0.1802	0.0463	0.1700	0.1300	0.1802	0.1802	0.4349	normal		
Fluoride	mg/L	SWW-21	31	7	59	0.1903	0.0545	0.2100	0.1500	0.1903	0.1903	0.4902	normal		
Fluoride	mg/L	SWW-22	35	3	59	0.1499	0.0382	0.1800	0.1000	0.1514	0.1499	0.3600	normal		
Fluoride	mg/L	SWW-23	35	3	51	0.1466	0.0335	0.2100	0.1400	0.1849	0.1531	0.3308	normal		
Fluoride	mg/L	SWW-24	35	3	51	0.1935	0.0486	0.2300	0.2000	0.1935	0.1935	0.4610	normal		
Fluoride	mg/L	SWW-25R	28	7	35	0.1221	0.0300	0.1500	0.1000	0.1275	0.1221	0.2871	normal		
Fluoride	mg/L	SWW-26	28	3	31	0.2650	0.2591	0.1500	0.1400	0.2650	0.2650	1.6898	normal		
Fluoride	mg/L	SWW-27	28	3	31	0.2296	0.0413	0.2800	0.2100	0.2490	0.2296	0.4569	normal		
Fluoride	mg/L	SWW-28	28	3	31	0.6378	0.2649	0.7700	0.7700	0.6378	0.6378	2.0949	normal		
Lead, dissolved	mg/L	SWW-20	32	7	60			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-21	31	7	59			0.0010	0.0010			0.0100	nonpar	.99	**
Lead, dissolved	mg/L	SWW-22	35	3	59			0.0010	0.0010			0.0078	nonpar	.99	**
Lead, dissolved	mg/L	SWW-23	35	3	51			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-24	35	3	51			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-25R	28	7	35			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-26	28	3	31			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-27	28	3	31			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-28	28	3	31			0.0010	0.0010			0.0010	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-20	32	7	60			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-21	31	7	59	0.0003	0.0002	0.0006	0.0004	0.0012	0.0011	0.0016	normal		
Mercury, dissolved	mg/L	SWW-22	35	3	59			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-23	35	3	51			0.0002	0.0002			0.0003	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-24	35	3	51			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-25R	28	7	35			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-26	28	3	31			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-27	28	3	31			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-28	28	3	31			0.0002	0.0002			0.0002	nonpar	.99	**
pH	SU	SWW-20	31	7	59	6.6794	0.3016	6.3400	6.1100	6.6794	6.6794	5.02 - 8.34	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
pH	SU	SWW-21	30	7	58	6.8997	0.2165	6.7200	6.6000	6.8997	6.8997	5.71 - 8.09	normal		
pH	SU	SWW-22	34	3	58	6.8797	0.2964	6.6000	6.4800	6.8797	6.8797	5.25 - 8.51	normal		
pH	SU	SWW-23	34	3	50	6.8094	0.2280	6.7200	6.5900	6.8094	6.8094	5.56 - 8.06	normal		
pH	SU	SWW-24	34	3	50	6.9088	0.2695	6.8100	6.6300	6.9088	6.9088	5.43 - 8.39	normal		
pH	SU	SWW-25R	27	7	34	7.0556	0.2740	6.5700	6.5100	7.0556	7.0556	5.55 - 8.56	normal		
pH	SU	SWW-26	28	3	31	6.9739	0.4050	6.6000	6.3600	6.9739	6.9739	4.75 - 9.20	normal		
pH	SU	SWW-27	28	3	31	7.0543	0.3744	7.0200	6.5800	7.0543	7.0543	5.00 - 9.11	normal		
pH	SU	SWW-28	28	3	31	7.2204	0.4912	7.2700	7.1300	7.2204	7.2204	4.52 - 9.92	normal		
Selenium, dissolved	mg/L	SWW-20	32	7	60			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-21	31	7	59			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-22	35	3	59			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-23	35	3	51			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-24	35	3	51			0.0020	0.0029			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-25R	28	7	35			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-26	28	3	31			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-27	28	3	31			0.0020	0.0020			0.0200	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-28	28	3	31			0.0020	0.0020			0.0020	nonpar	.99	**
Sodium, dissolved	mg/L	SWW-20	32	7	60	28.3688	7.9653	42.1000	42.2000	69.1126	76.9699	72.1777	normal		
Sodium, dissolved	mg/L	SWW-21	31	7	59	117.0323	35.3207	132.0000	146.0000	154.8955	157.3727	311.2961	normal		
Sodium, dissolved	mg/L	SWW-22	35	3	59	65.5829	12.1410	70.9000	71.9000	65.5829	65.5829	132.3586	normal		
Sodium, dissolved	mg/L	SWW-23	35	3	51	138.2343	59.0454	117.0000	91.0000	138.2343	138.2343	462.9839	normal		
Sodium, dissolved	mg/L	SWW-24	35	3	51	39.0171	18.2199	34.3000	21.2000	39.0171	39.0171	139.2268	normal		
Sodium, dissolved	mg/L	SWW-25R	28	7	35	59.4000	48.2750	93.1000	127.0000	223.8624	255.2561	324.9126	normal		
Sodium, dissolved	mg/L	SWW-26	28	3	31	34.8668	39.9795	27.8000	21.3000	34.8668	34.8668	254.7541	normal		
Sodium, dissolved	mg/L	SWW-27	28	3	31	8.2061	0.5241	8.8000	9.1000	8.4069	8.9078	11.0886	normal		
Sodium, dissolved	mg/L	SWW-28	28	3	31	104.3429	40.5214	112.0000	127.0000	104.3429	104.3429	327.2104	normal		
Specific conductance-field	umhos/cm	SWW-20	31	7	59	980.5645	294.5463	1410.0000	1450.0000	2425.1190	2673.6448	2600.5692	normal		
Specific conductance-field	umhos/cm	SWW-21	30	7	58	3524.0857	904.0728	2520.0000	2860.0000	3524.0857	3524.0857	8496.4862	normal		
Specific conductance-field	umhos/cm	SWW-22	34	3	58	2925.1735	426.9025	2770.0000	2600.0000	2925.1735	2925.1735	5273.1371	normal		
Specific conductance-field	umhos/cm	SWW-23	34	3	50	3540.3244	807.3269	2590.0000	1970.0000	3540.3244	3540.3244	7980.6224	normal		
Specific conductance-field	umhos/cm	SWW-24	34	3	50	1903.2041	613.8521	1500.0000	1100.0000	1903.2041	1903.2041	5279.3908	normal		
Specific conductance-field	umhos/cm	SWW-25R	27	7	34	2237.7185	898.7991	1150.0000	2070.0000	2237.7185	2237.7185	7181.1134	normal		
Specific conductance-field	umhos/cm	SWW-26	28	3	31	904.6429	250.7915	1200.0000	1100.0000	1011.9064	1019.1699	2283.9960	normal		
Specific conductance-field	umhos/cm	SWW-27	28	3	31	671.5625	46.7633	640.0000	750.0000	671.5625	714.9276	928.7604	normal		
Specific conductance-field	umhos/cm	SWW-28	28	3	31	836.2368	116.2757	760.0000	830.0000	836.2368	836.2368	1475.7534	normal		
Sulfate	mg/L	SWW-20	32	7	60	160.8406	80.7813	297.0000	260.0000	441.7075	480.2808	605.1380	normal		
Sulfate	mg/L	SWW-21	31	7	59	1168.6452	521.7154	542.0000	531.0000	1168.6452	1168.6452	4038.0799	normal		
Sulfate	mg/L	SWW-22	35	3	59	1118.5143	431.2095	785.0000	415.0000	1118.5143	1118.5143	3490.1664	normal		
Sulfate	mg/L	SWW-23	35	3	51	1212.5143	535.7892	639.0000	279.0000	1212.5143	1212.5143	4159.3547	normal		
Sulfate	mg/L	SWW-24	35	3	51	436.3143	180.0357	438.0000	166.0000	436.3143	436.3143	1426.5109	normal		
Sulfate	mg/L	SWW-25R	28	7	35	599.3929	390.1314	455.0000	451.0000	599.3929	599.3929	2745.1158	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Sulfate	mg/L	SWW-26	28	3	31	232.6964	204.8552	519.0000	360.0000	365.3586	339.0208	1359.4000	normal		
Sulfate	mg/L	SWW-27	28	3	31	109.5643	19.6855	150.0000	118.0000	144.9075	138.5791	217.8345	normal		
Sulfate	mg/L	SWW-28	28	3	31	25.8893	38.5384	10.0000	10.0000	25.8893	25.8893	237.8506	normal		
Total dissolved solids	mg/L	SWW-20	5	7	16										*
Total dissolved solids	mg/L	SWW-21	5	7	16										*
Total dissolved solids	mg/L	SWW-22	9	3	16	2423.3333	129.0349	2440.0000	2260.0000	2423.3333	2423.3333	3133.0252	normal		
Total dissolved solids	mg/L	SWW-23	9	3	12	2613.3333	498.3222	2120.0000	1720.0000	2613.3333	2613.3333	5354.1054	normal		
Total dissolved solids	mg/L	SWW-24	9	3	12	1056.5556	311.9444	1110.0000	755.0000	1056.5556	1056.5556	2772.2495	normal		
Total dissolved solids	mg/L	SWW-25R	5	7	12										*
Total dissolved solids	mg/L	SWW-26	9	3	12	984.7778	829.8634	1050.0000	880.0000	984.7778	984.7778	5549.0263	normal		
Total dissolved solids	mg/L	SWW-27	9	3	12	428.1111	64.5028	483.0000	529.0000	428.1111	464.4972	782.8765	normal		
Total dissolved solids	mg/L	SWW-28	9	3	12	502.8889	28.9199	522.0000	506.0000	502.8889	502.8889	661.9484	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 3

Dixon's Test Outliers
1% Significance Level

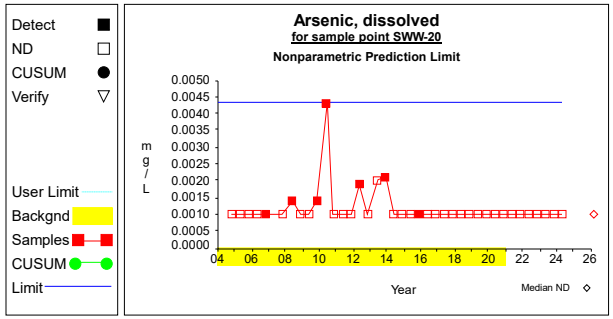
Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Boron, dissolved	mg/L	SWW-24	05/01/2005	0.0100		05/01/2005-11/09/2022	35	0.4359
Boron, dissolved	mg/L	SWW-24	05/30/2013	0.0312		05/01/2005-11/09/2022	35	0.4359

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

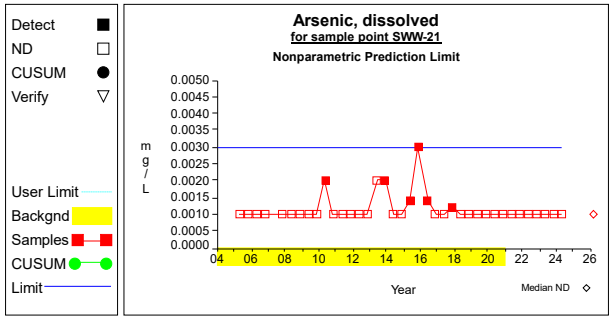
Merom Station [AREA2A]

Analysis prepared on: 6/17/2024

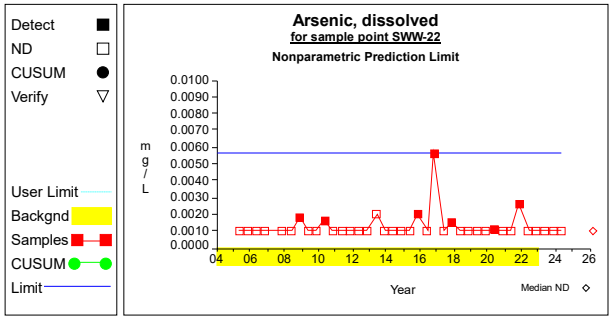
Intra-Well Control Charts / Prediction Limits



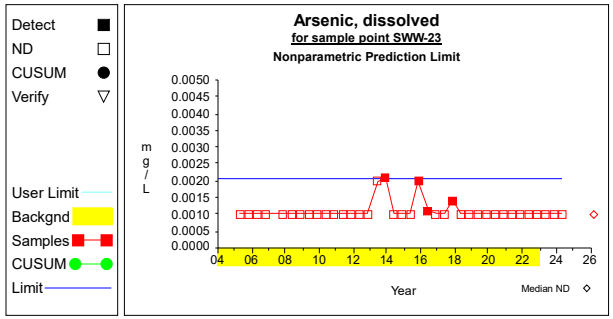
Graph 1



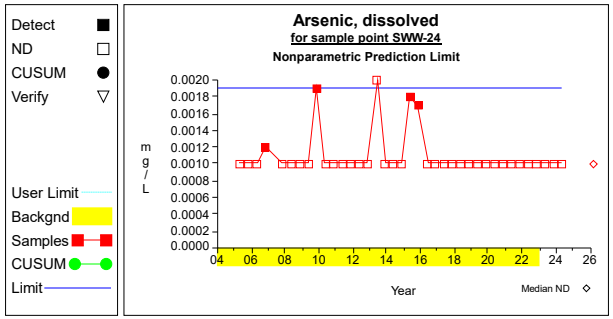
Graph 2



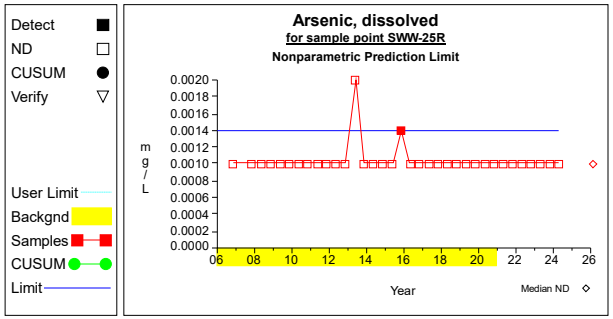
Graph 3



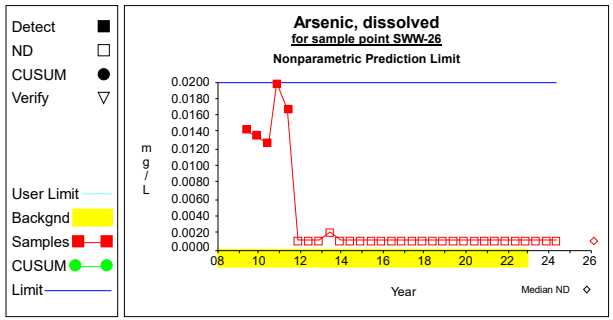
Graph 4



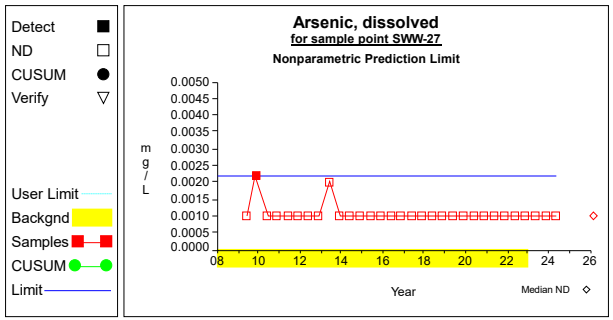
Graph 5



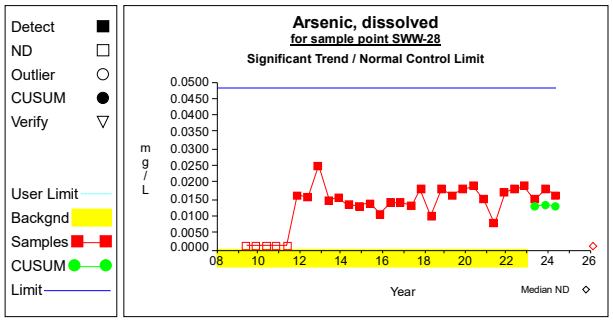
Graph 6



Graph 7



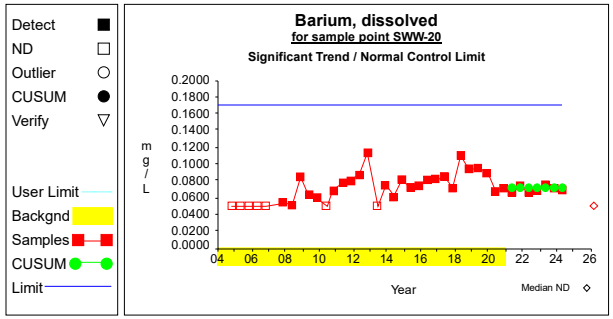
Graph 8



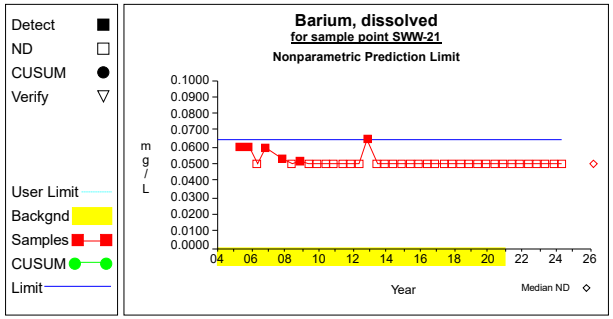
Graph 9

Prepared by: ATC Group Services LLC

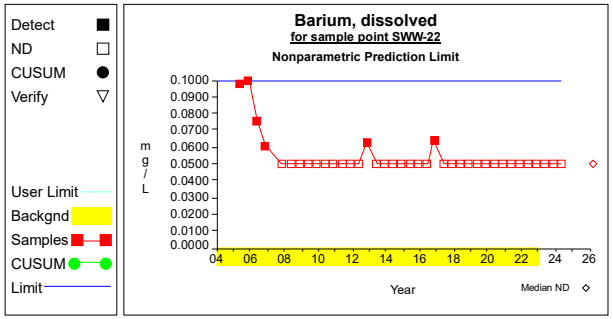
Intra-Well Control Charts / Prediction Limits



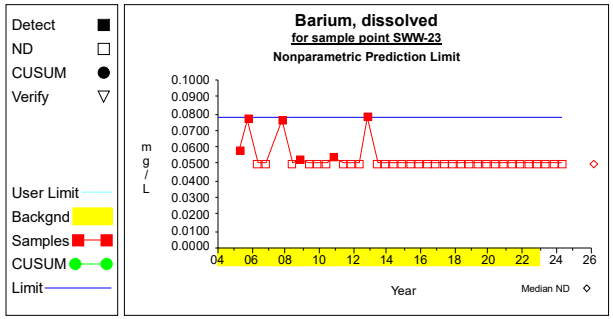
Graph 10



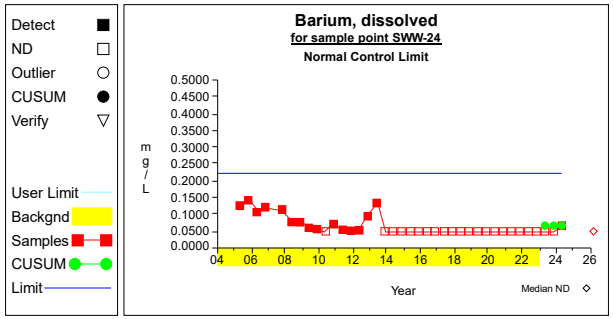
Graph 11



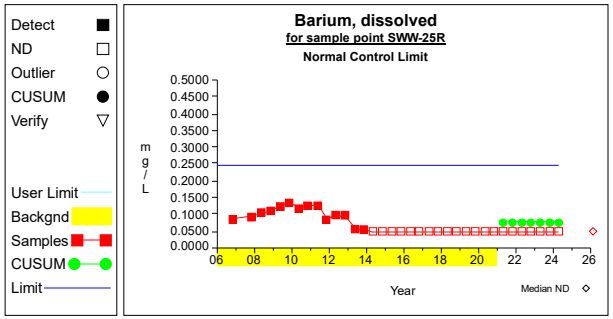
Graph 12



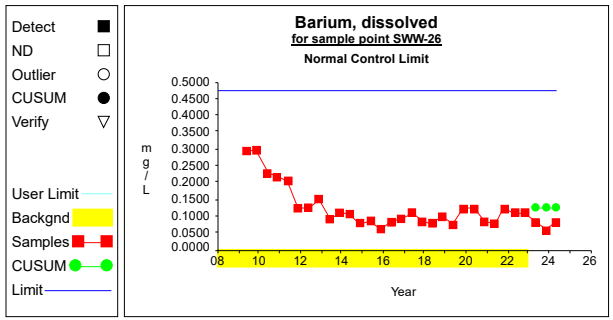
Graph 13



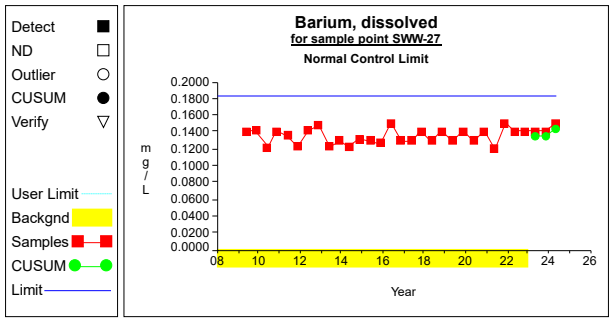
Graph 14



Graph 15



Graph 16



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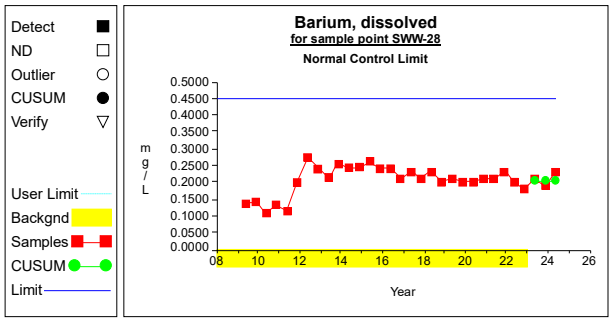
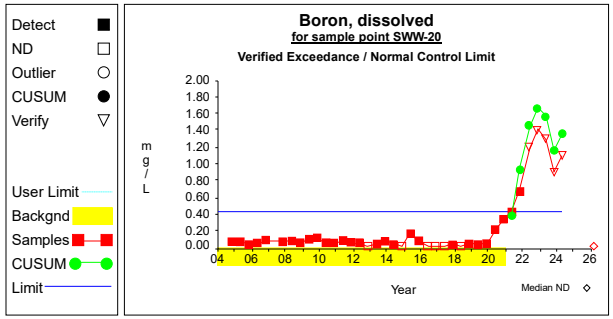
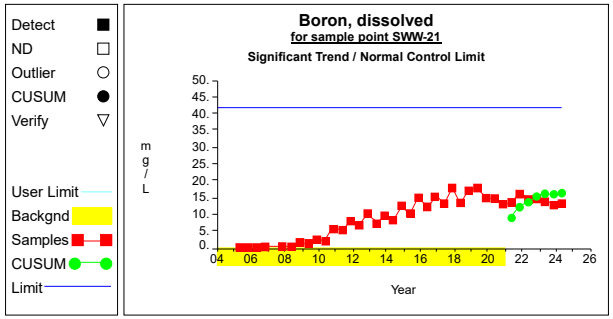


Graph 18

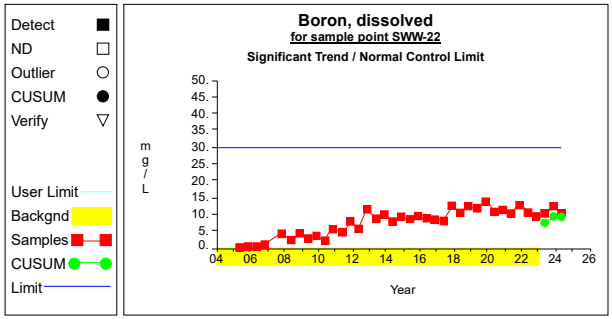
Intra-Well Control Charts / Prediction Limits



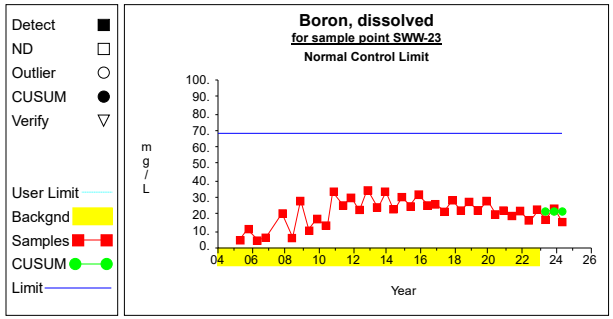
Graph 19



Graph 20



Graph 21



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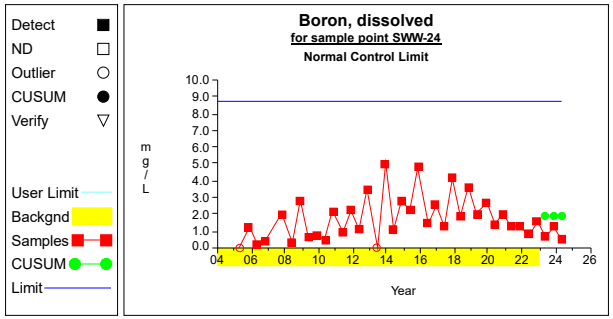
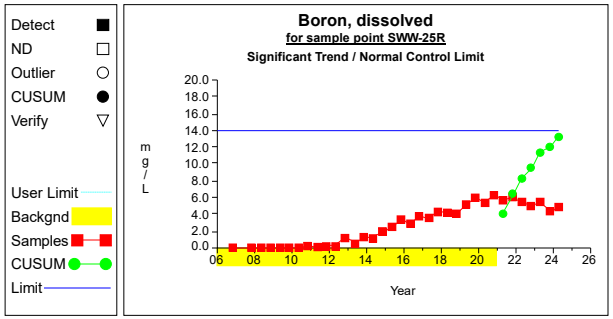
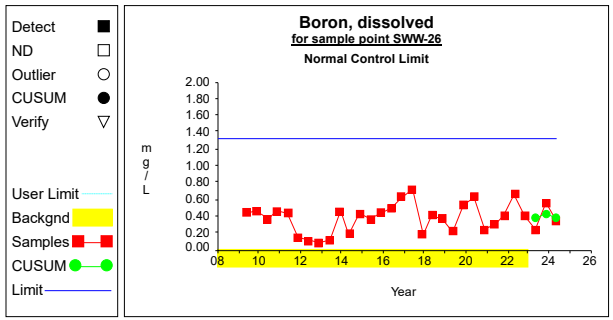


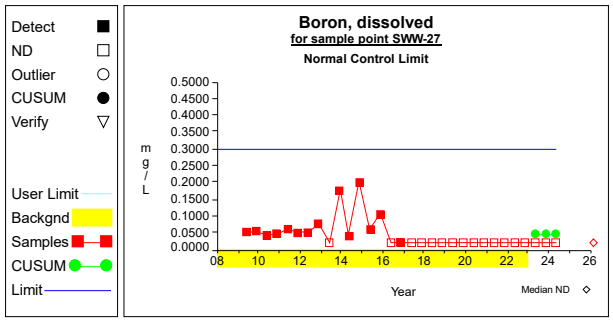
Graph 23



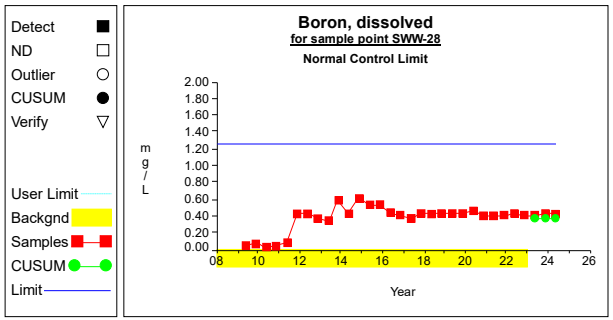
Graph 24



Graph 25



Graph 26

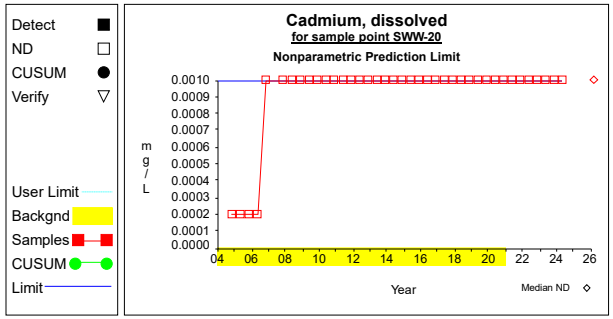


Graph 27

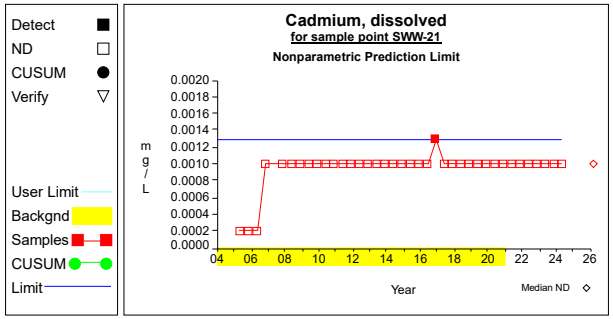
Merom Station [AREA2A]

Analysis prepared on: 6/17/2024

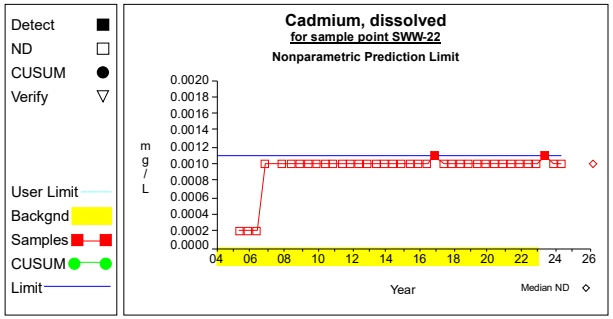
Intra-Well Control Charts / Prediction Limits



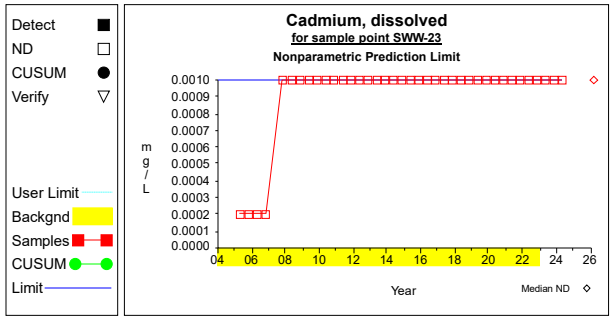
Graph 28



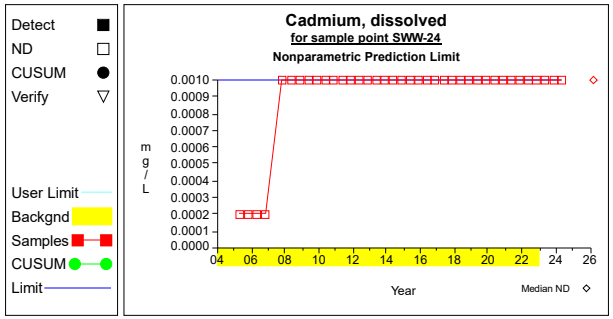
Graph 29



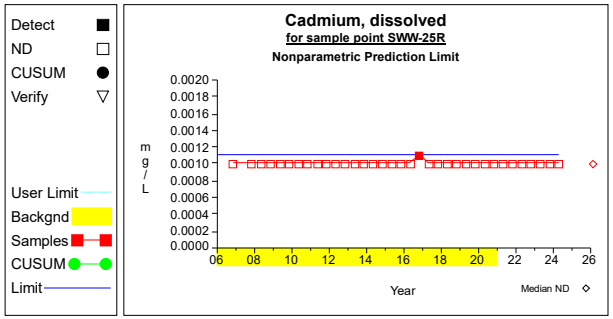
Graph 30



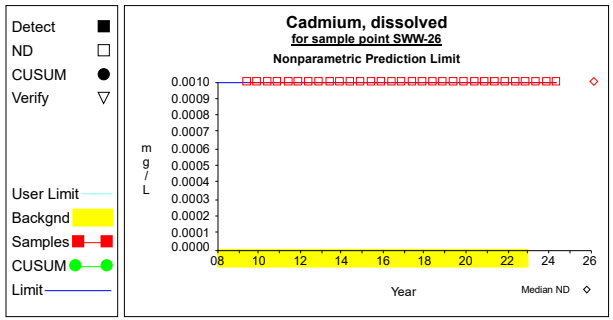
Graph 31



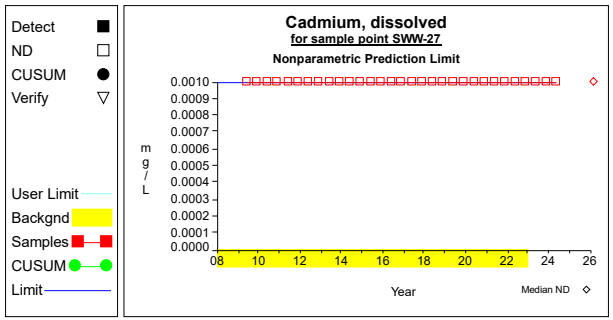
Graph 32



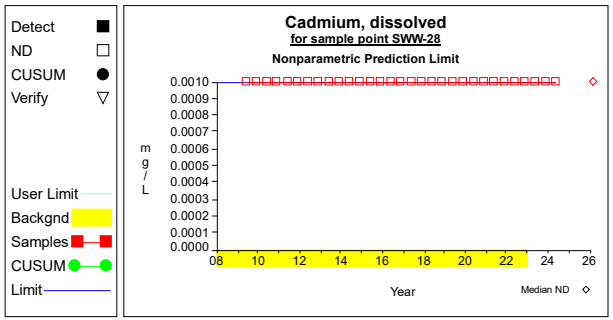
Graph 33



Graph 34



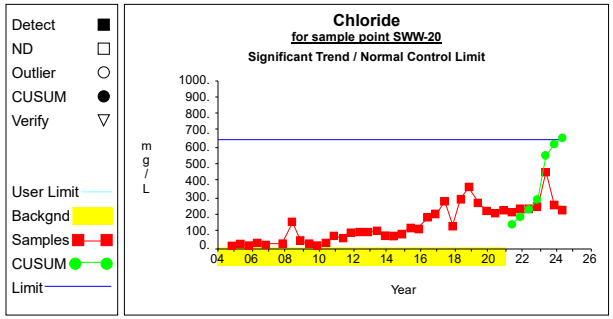
Graph 35



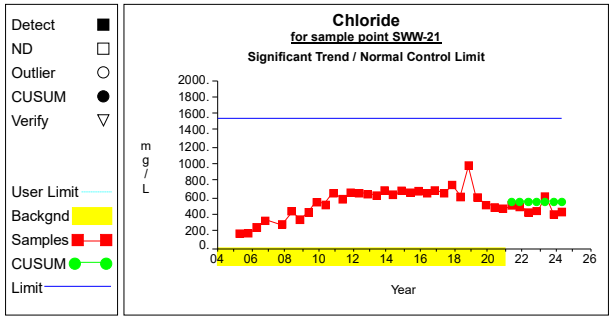
Graph 36

Prepared by: ATC Group Services LLC

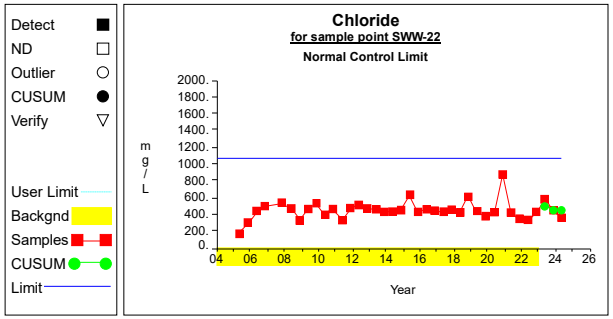
Intra-Well Control Charts / Prediction Limits



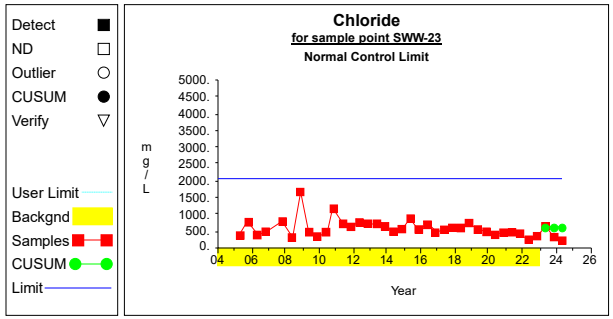
Graph 37



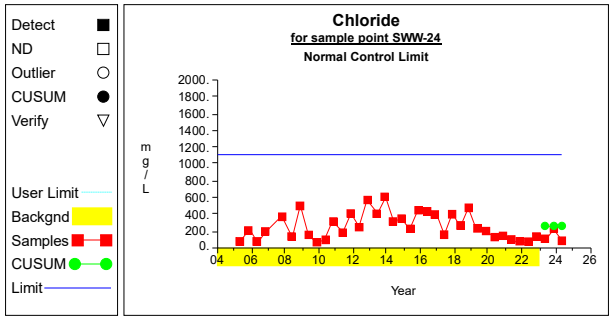
Graph 38



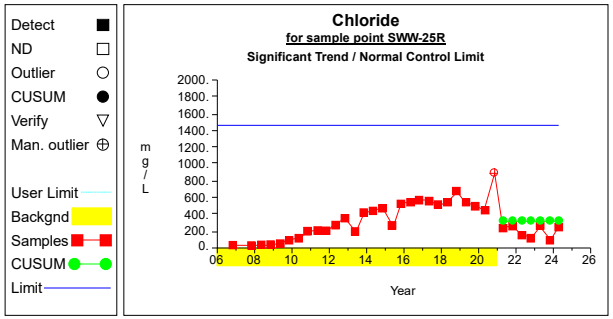
Graph 39



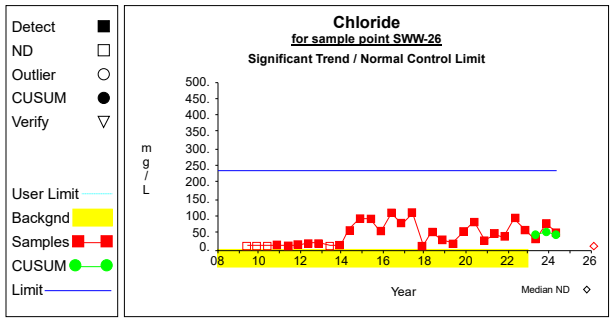
Graph 40



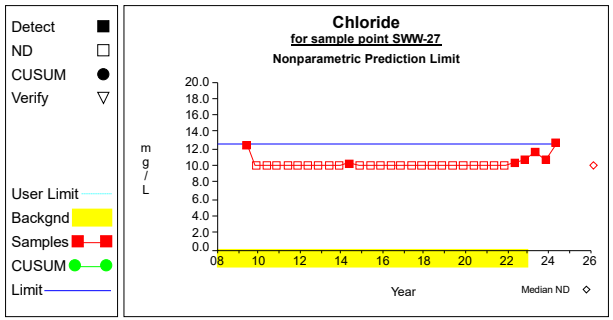
Graph 41



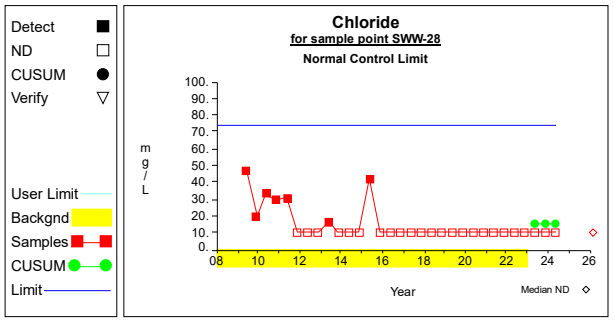
Graph 42



Graph 43

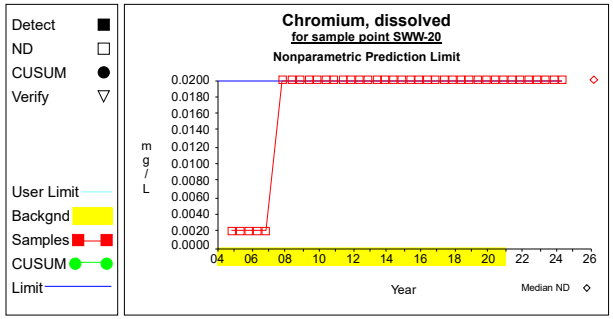


Graph 44

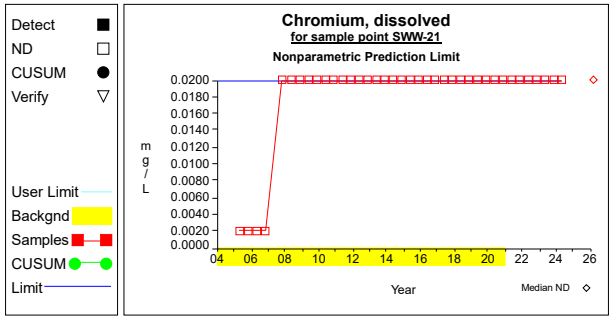


Graph 45

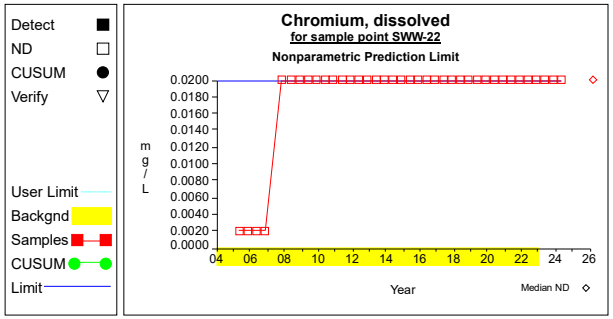
Intra-Well Control Charts / Prediction Limits



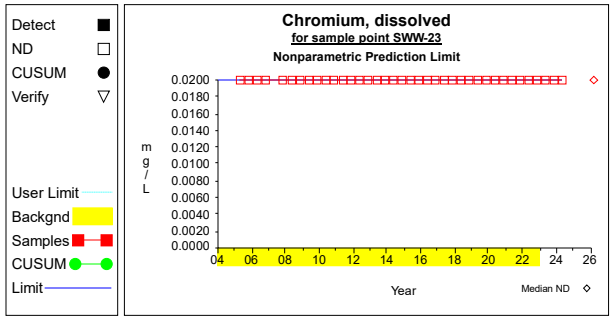
Graph 46



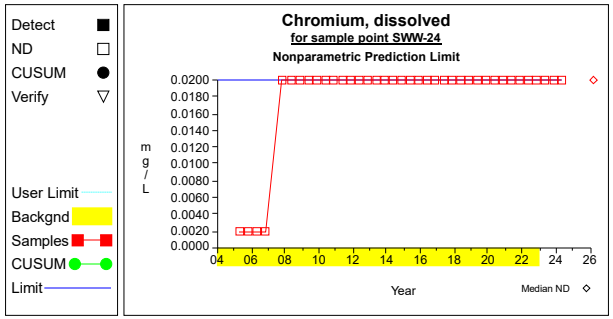
Graph 47



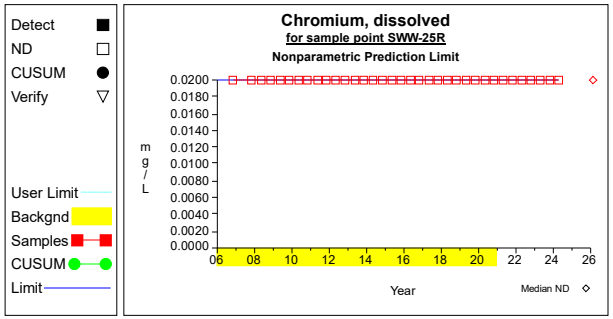
Graph 48



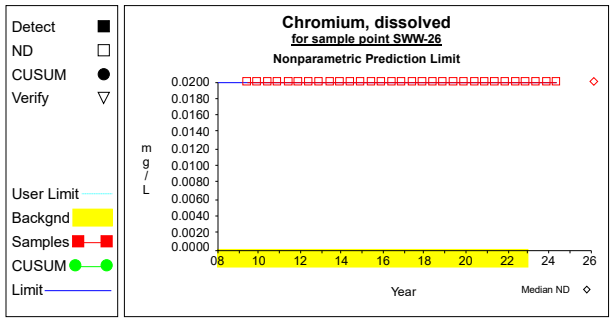
Graph 49



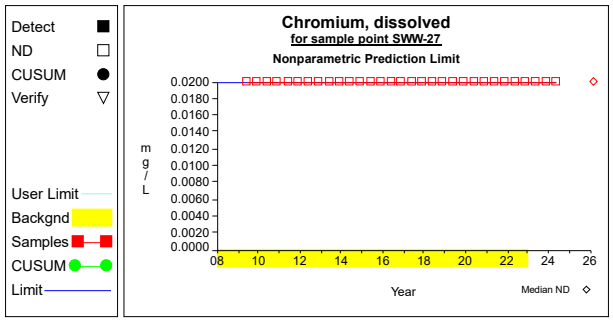
Graph 50



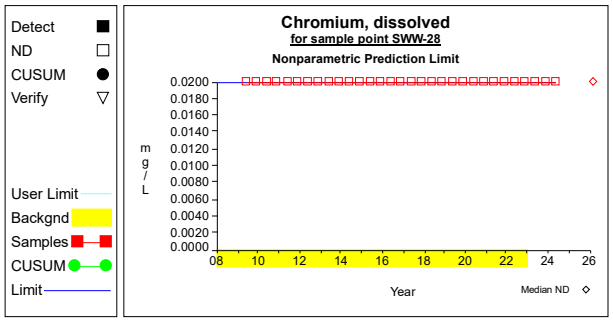
Graph 51



Graph 52



Graph 53

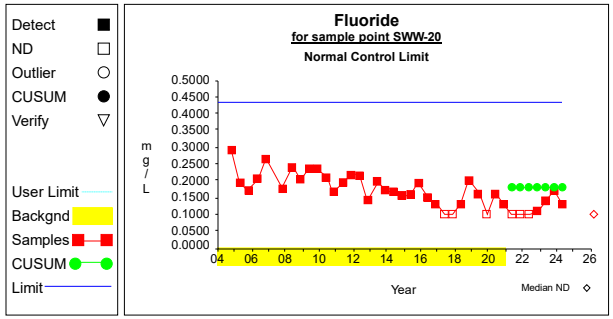


Graph 54

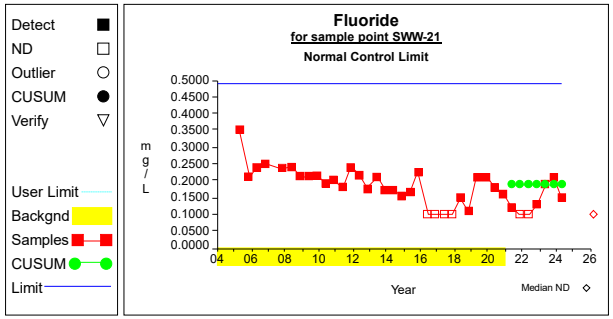
Merom Station [AREA2A]

Analysis prepared on: 6/17/2024

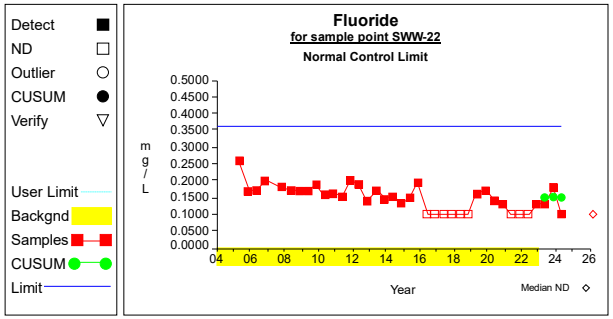
Intra-Well Control Charts / Prediction Limits



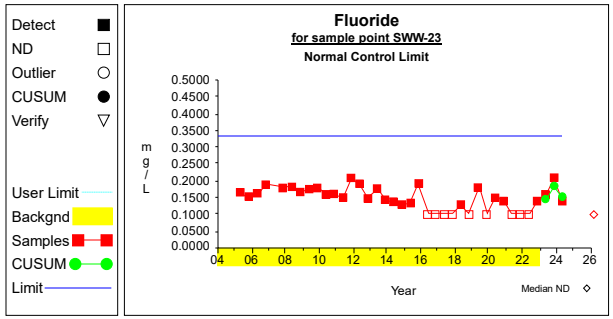
Graph 55



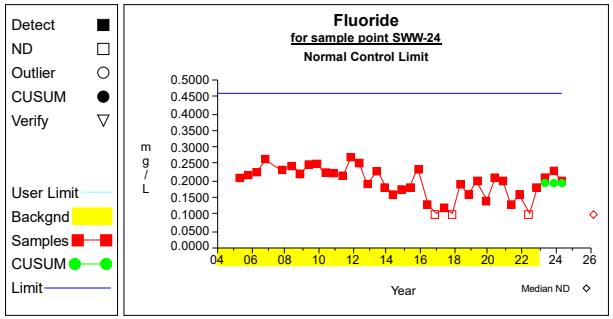
Graph 56



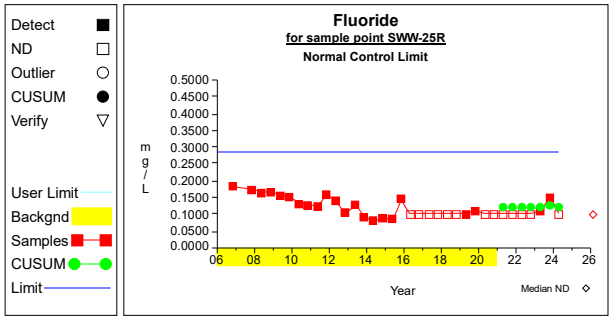
Graph 57



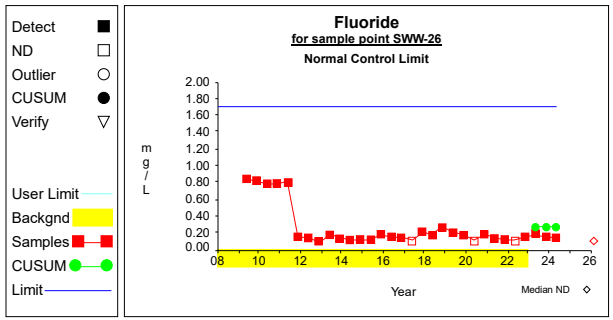
Graph 58



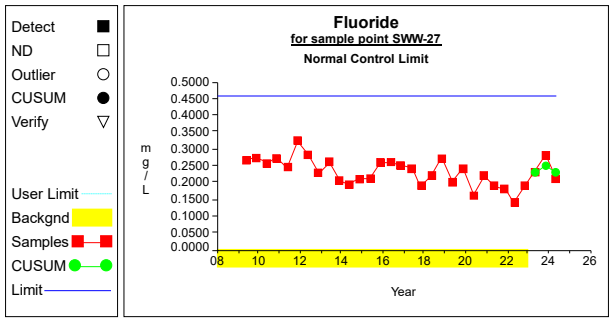
Graph 59



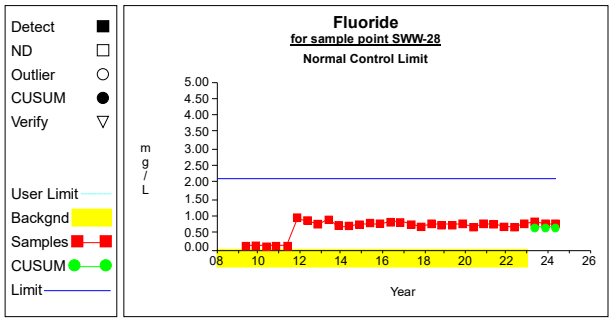
Graph 60



Graph 61



Graph 62



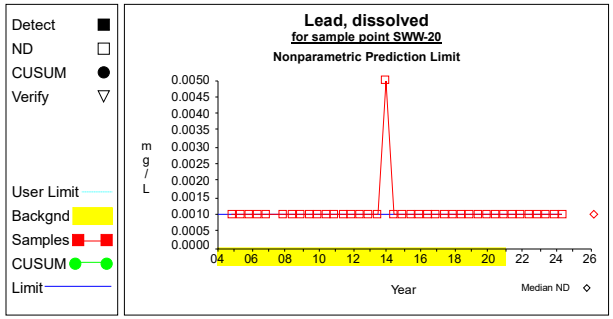
Graph 63

Prepared by: ATC Group Services LLC

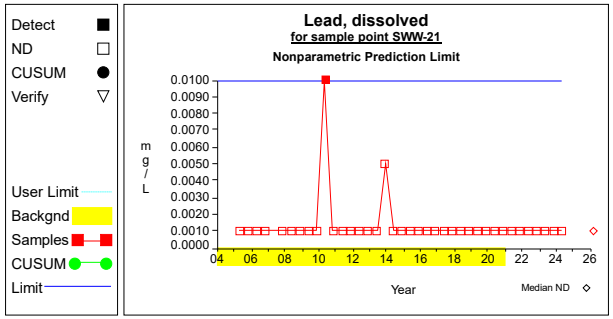
Merom Station [AREA2A]

Analysis prepared on: 6/17/2024

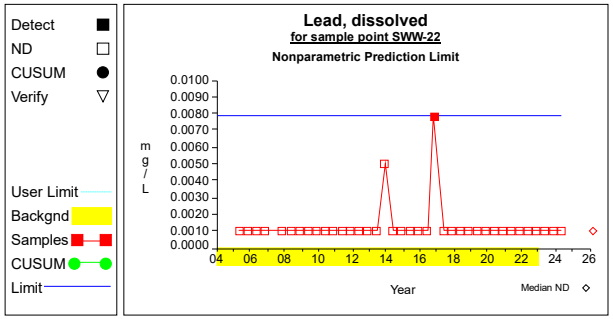
Intra-Well Control Charts / Prediction Limits



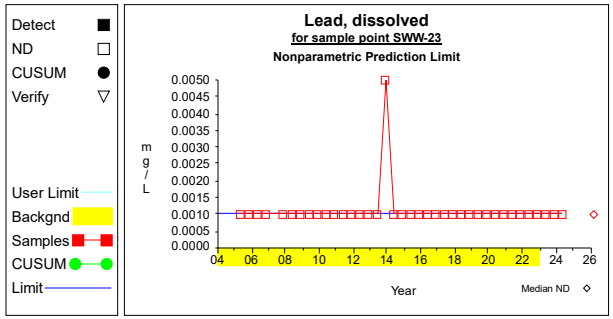
Graph 64



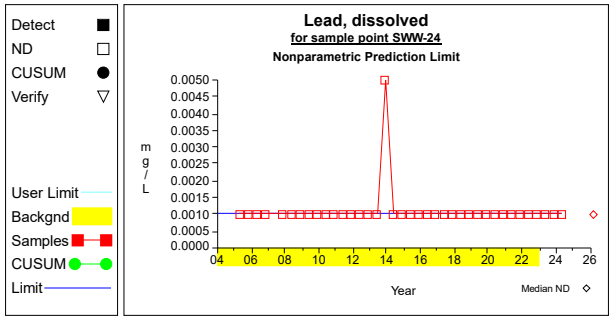
Graph 65



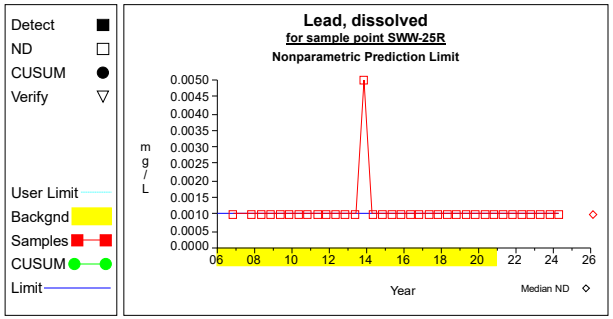
Graph 66



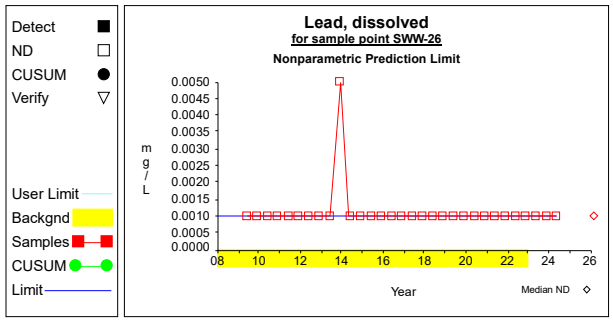
Graph 67



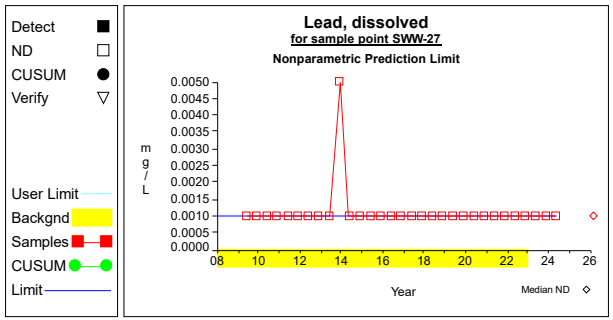
Graph 68



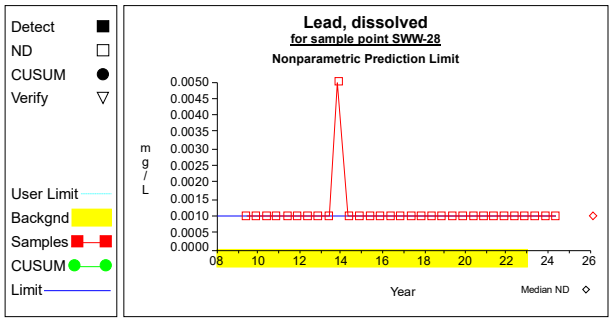
Graph 69



Graph 70



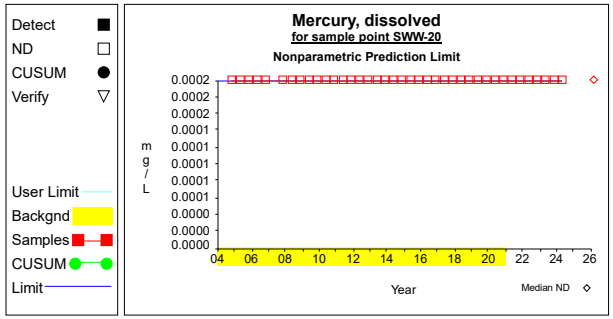
Graph 71



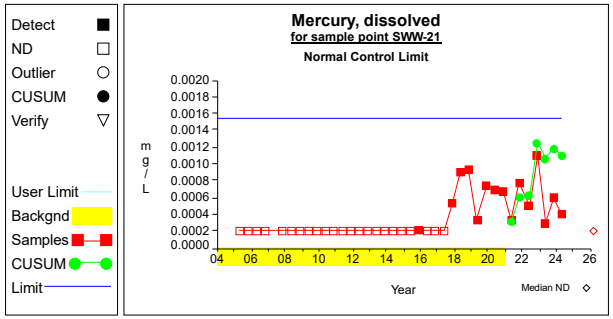
Graph 72

Prepared by: ATC Group Services LLC

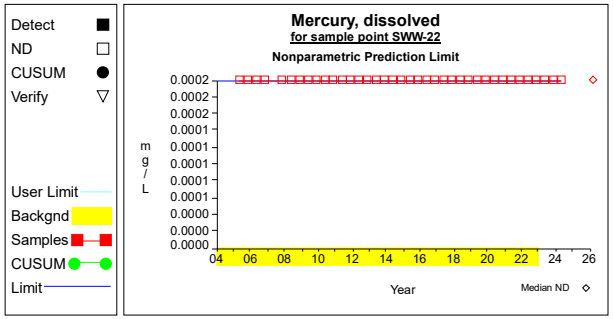
Intra-Well Control Charts / Prediction Limits



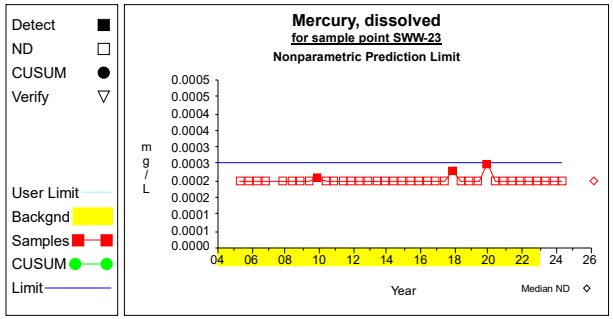
Graph 73



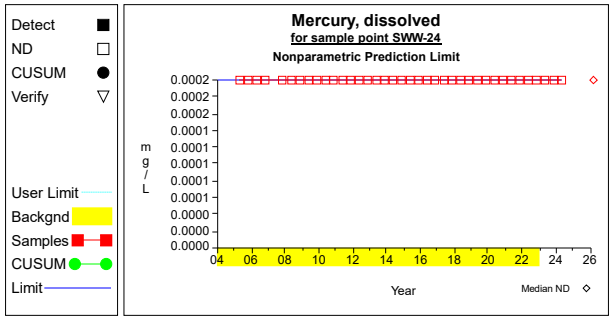
Graph 74



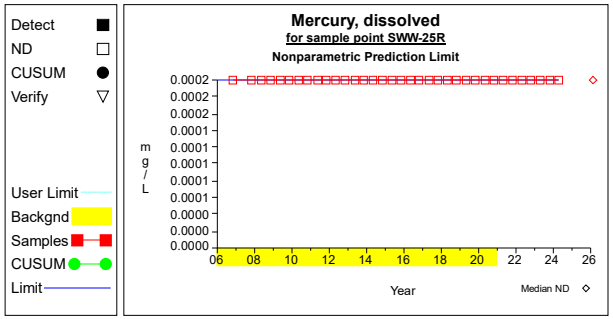
Graph 75



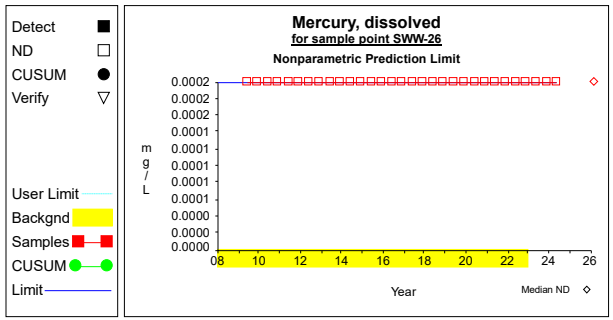
Graph 76



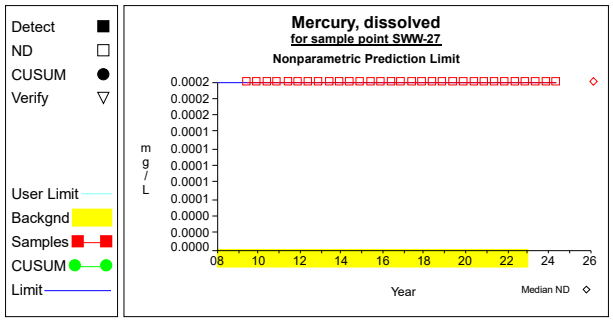
Graph 77



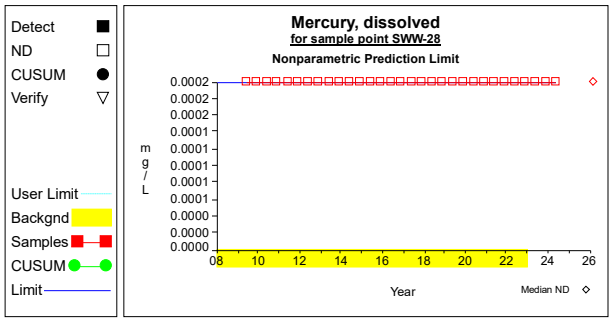
Graph 78



Graph 79

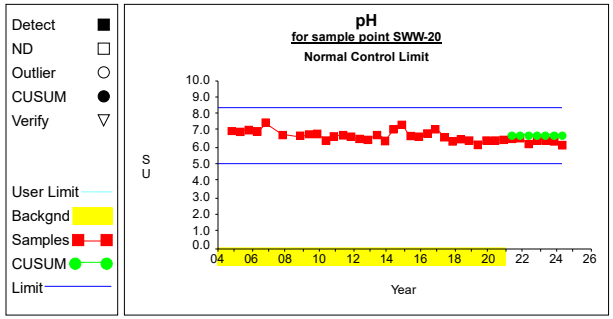


Graph 80

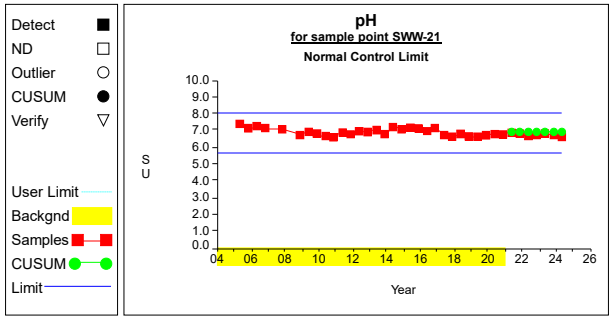


Graph 81

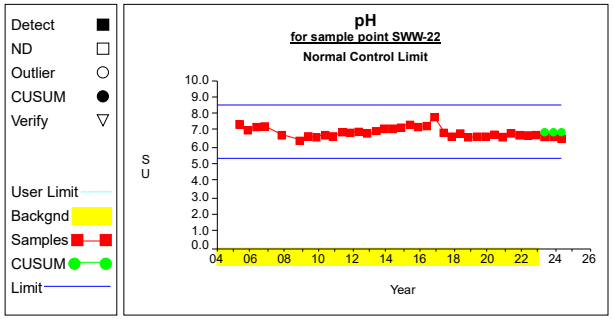
Intra-Well Control Charts / Prediction Limits



Graph 82



Graph 83



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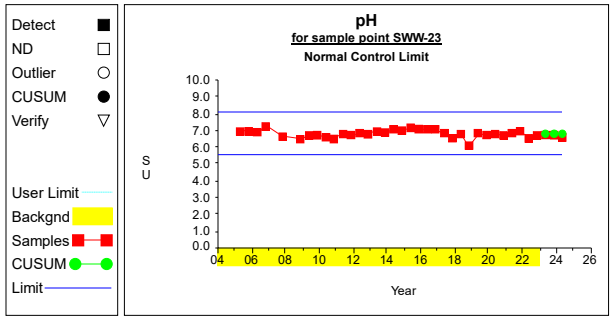

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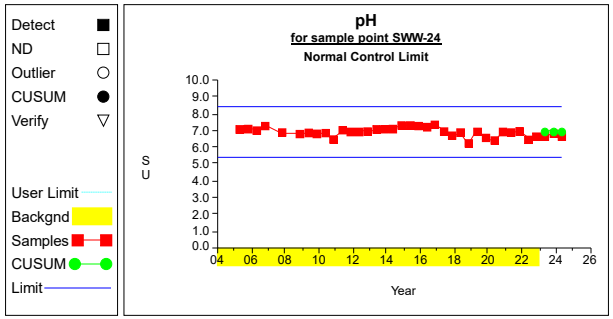

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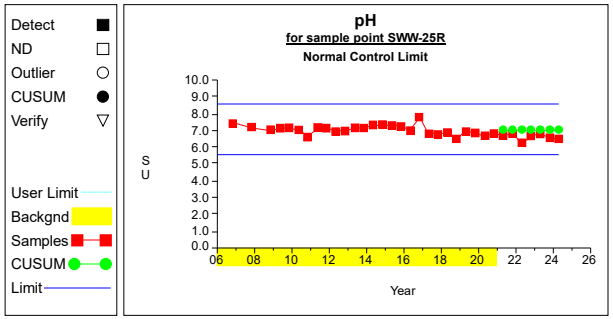

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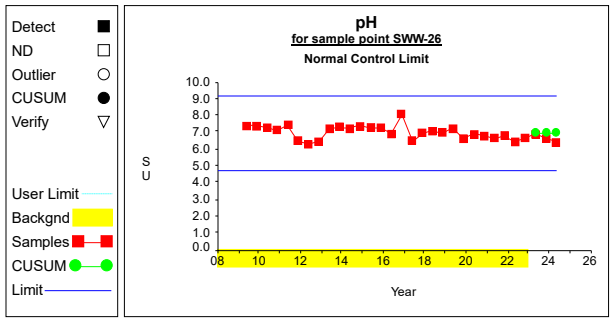

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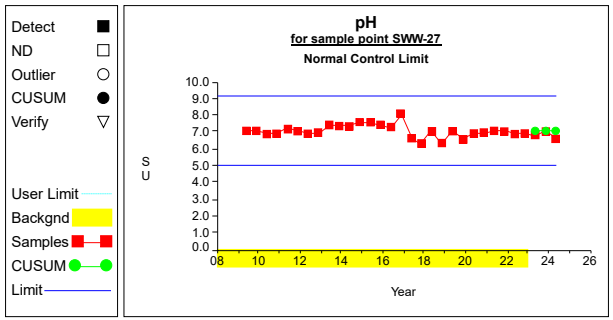

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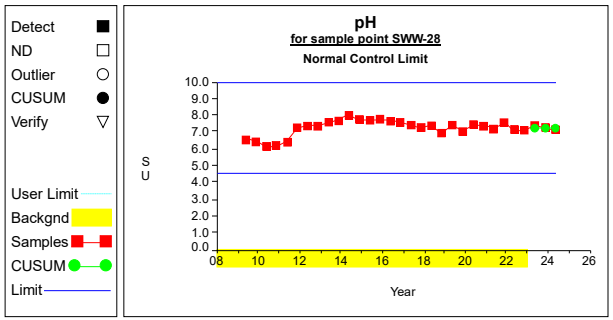
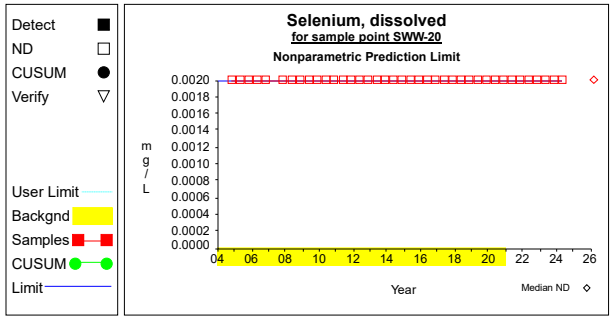


Graph 90

Merom Station [AREA2A]

Analysis prepared on: 6/17/2024

Intra-Well Control Charts / Prediction Limits



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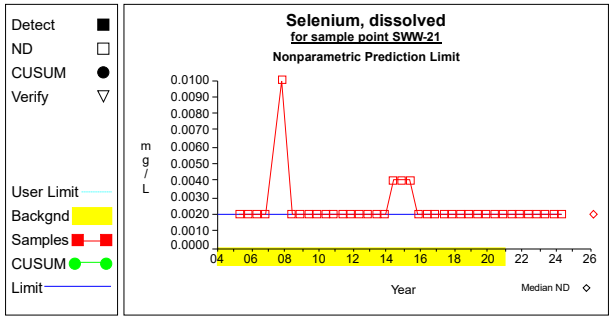

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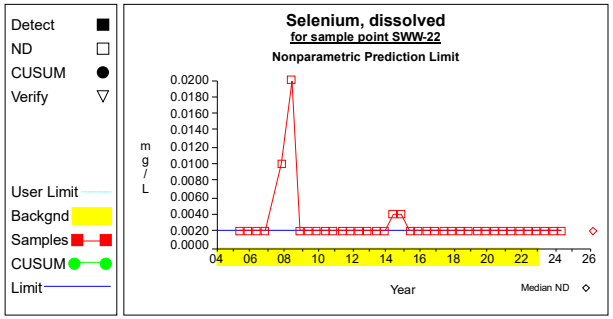

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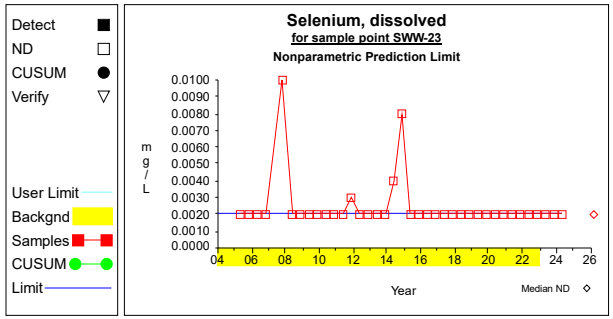

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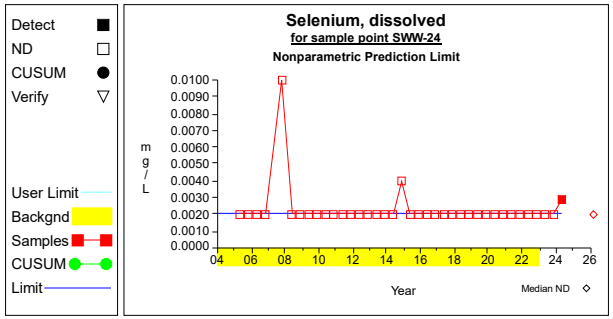

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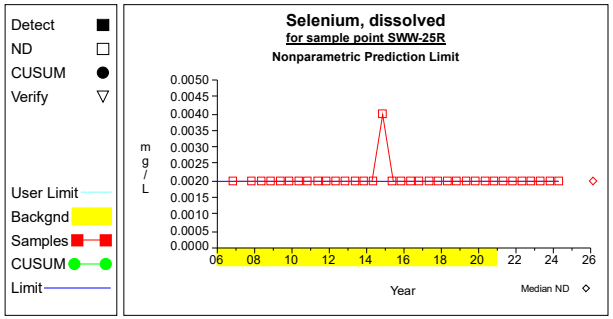

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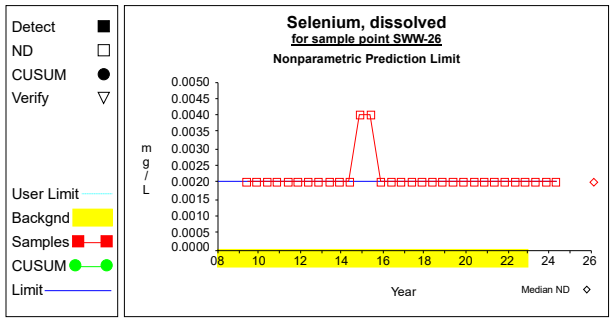

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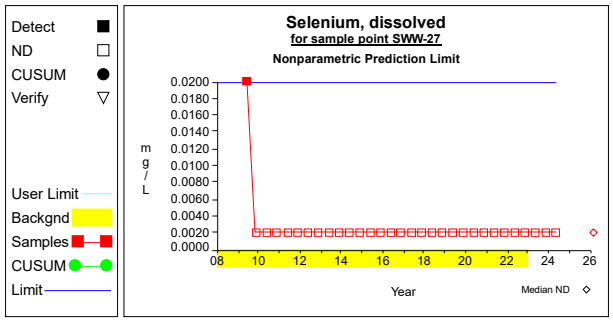

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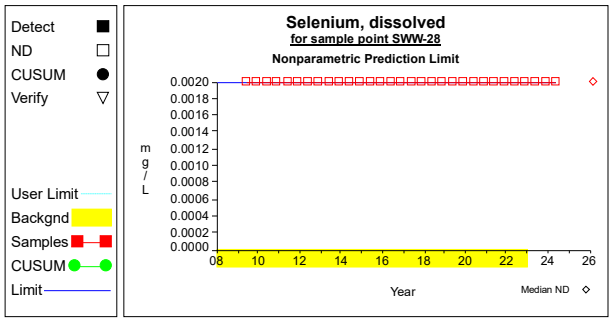
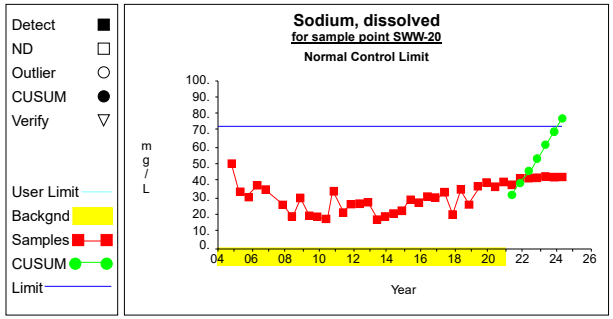


Graph 99

Prepared by: ATC Group Services LLC

Intra-Well Control Charts / Prediction Limits



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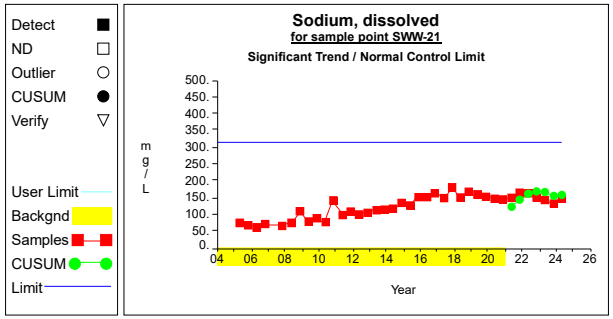

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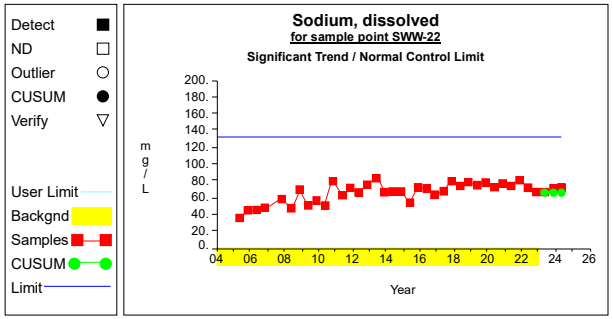

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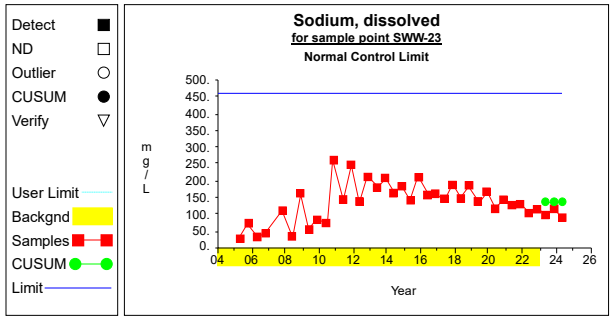

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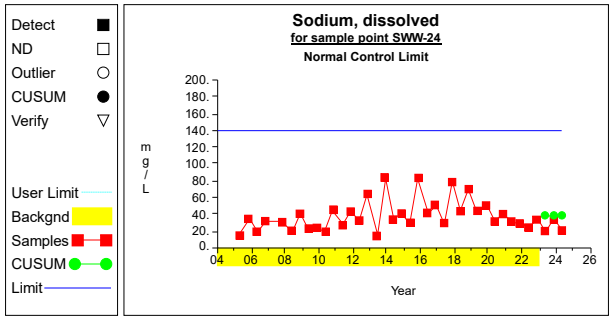

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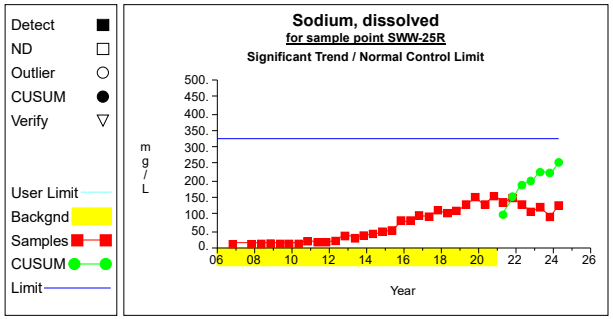

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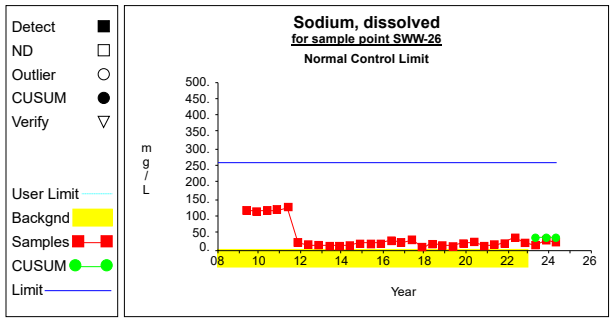

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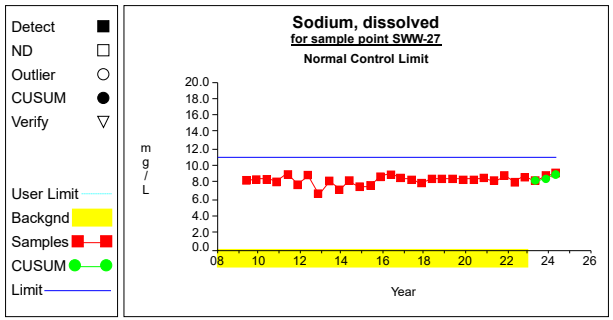

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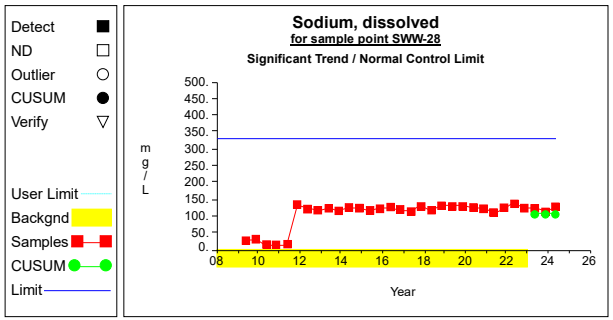
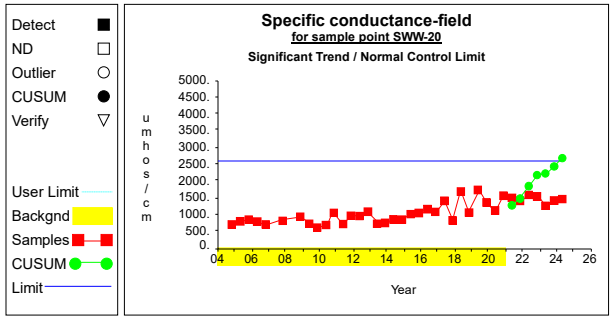


Graph 108

Prepared by: ATC Group Services LLC

Intra-Well Control Charts / Prediction Limits



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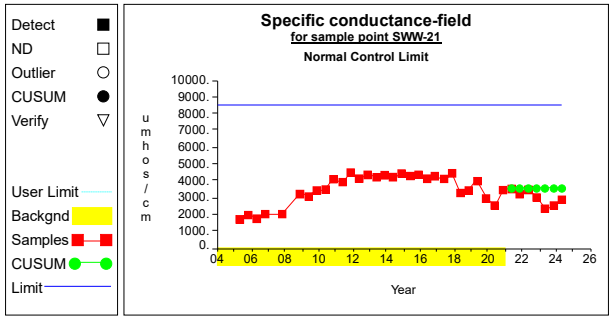

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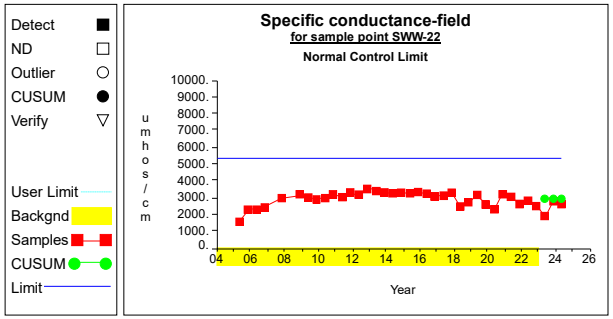

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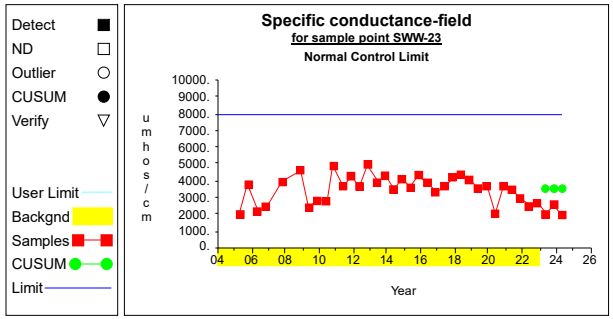

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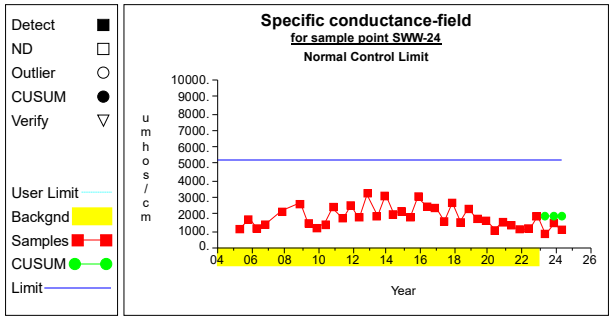

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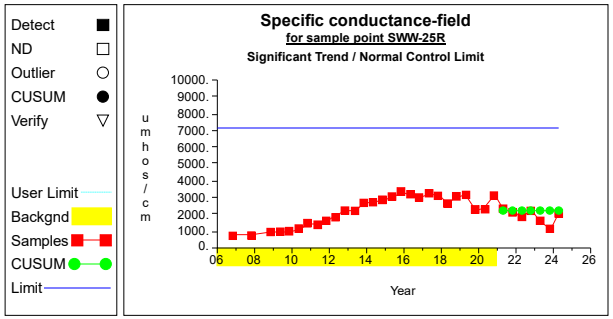

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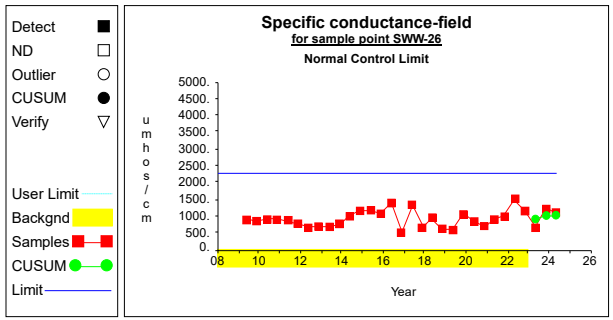

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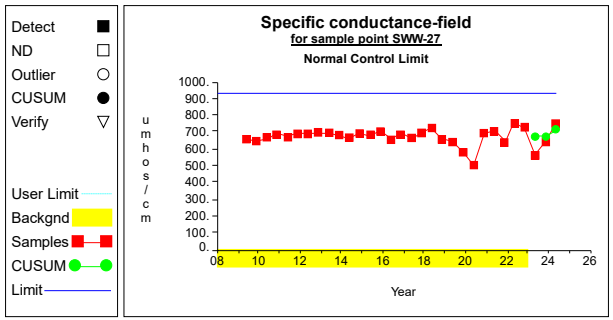

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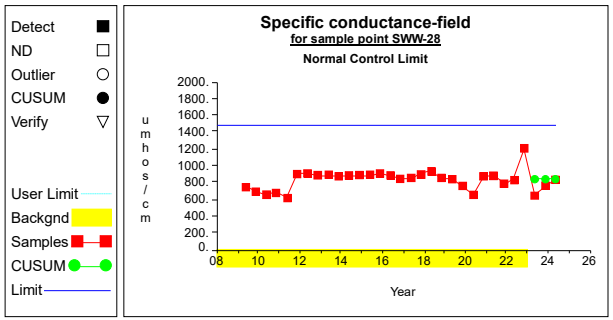
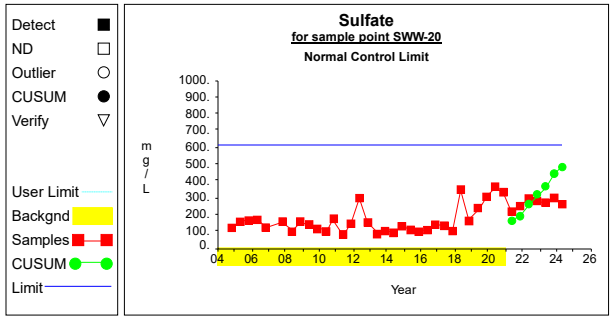


Graph 117

Merom Station [AREA2A]

Analysis prepared on: 6/17/2024

Intra-Well Control Charts / Prediction Limits



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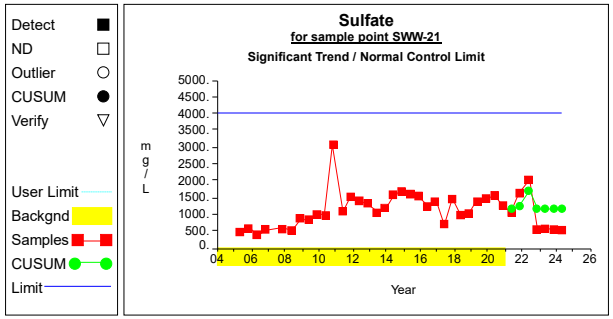

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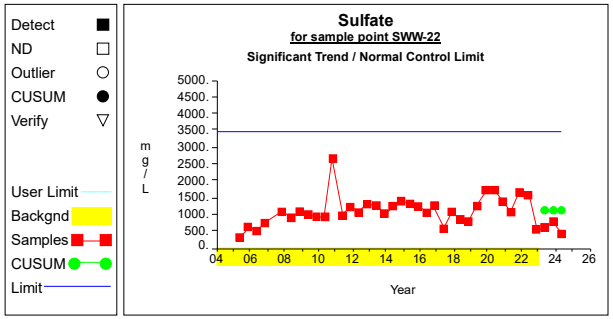

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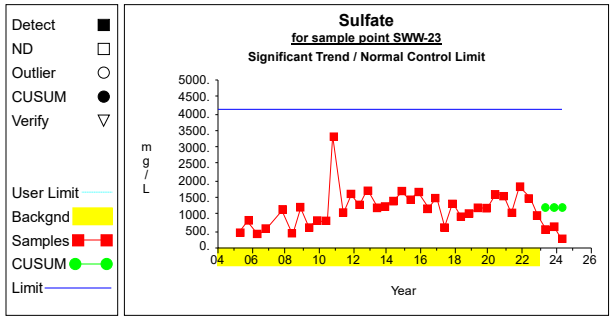

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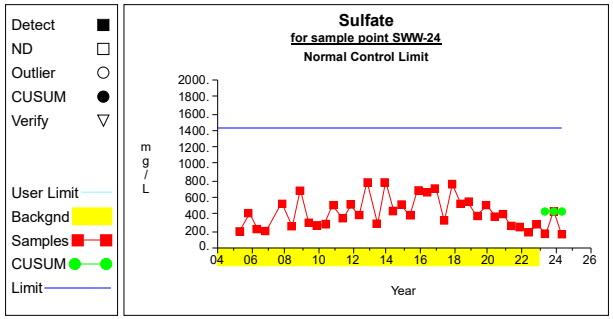

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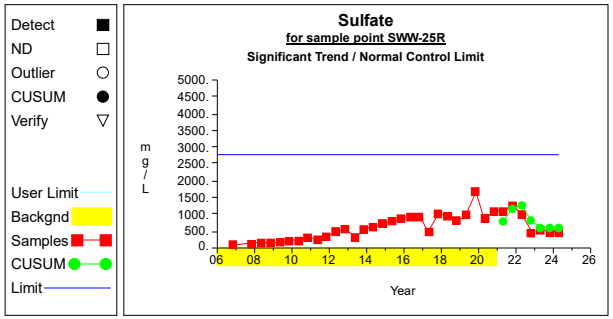

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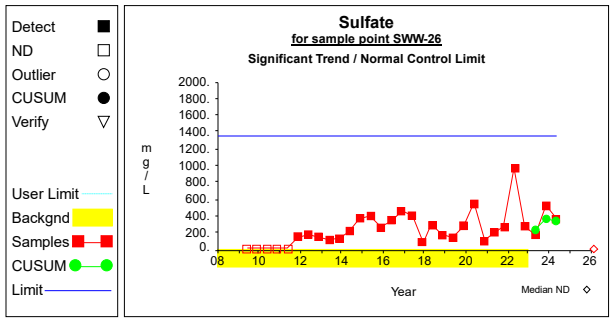
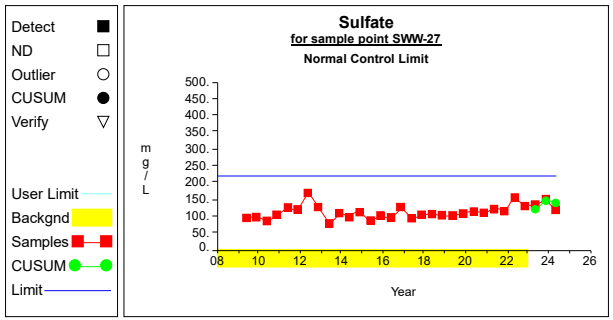


Graph 124



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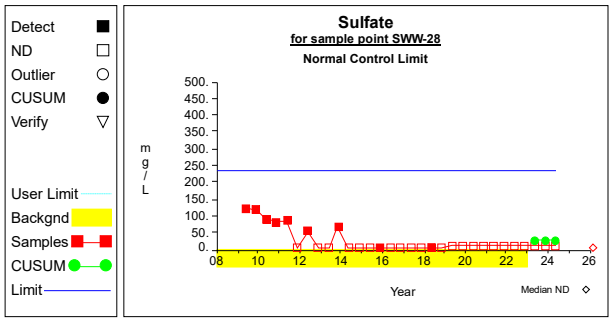
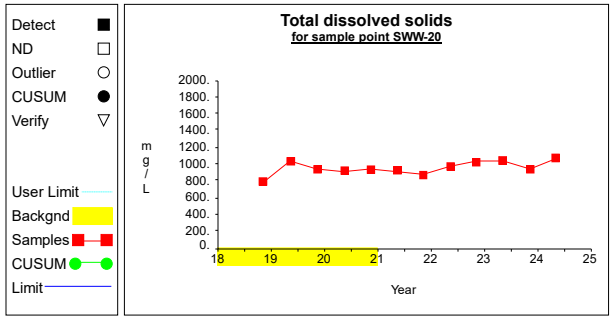


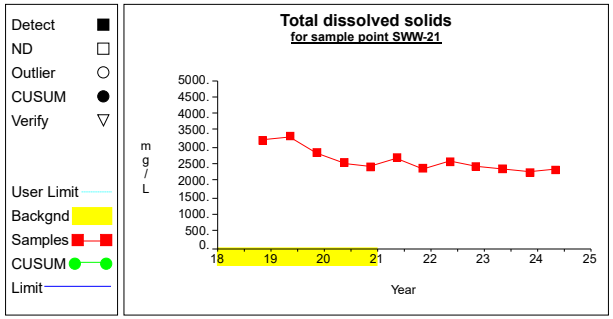
Graph 126

Prepared by: ATC Group Services LLC

Intra-Well Control Charts / Prediction Limits



Graph 127



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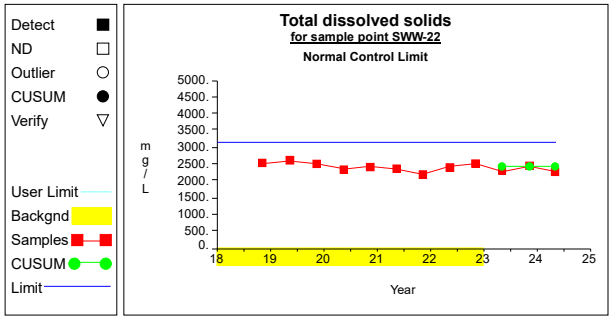

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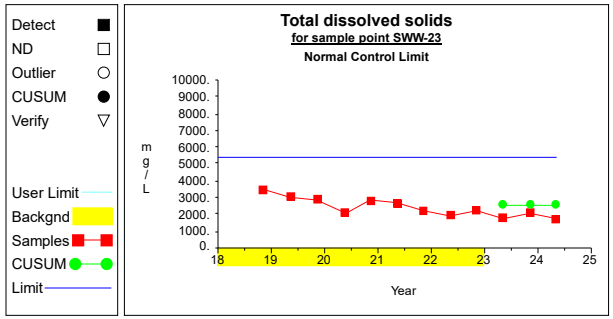

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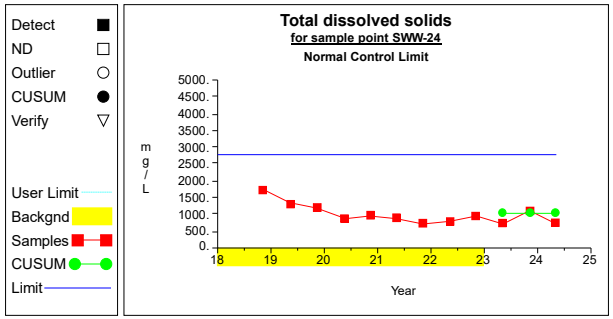

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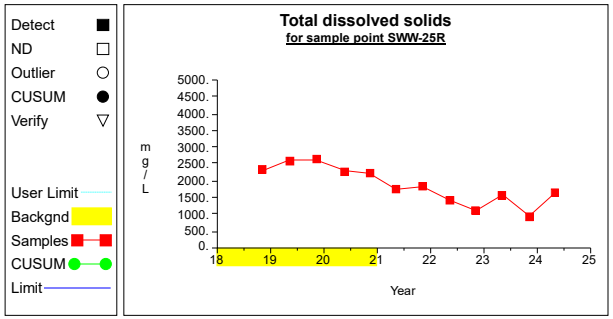
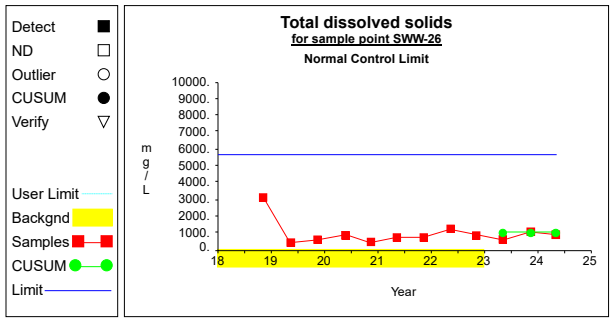
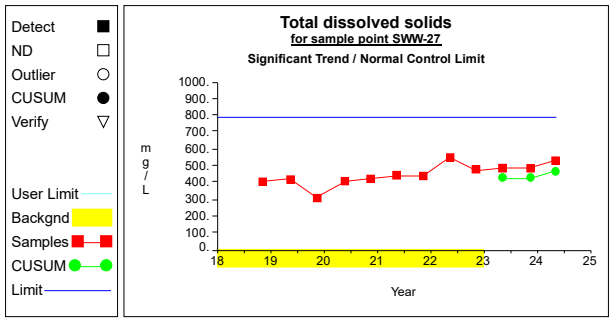


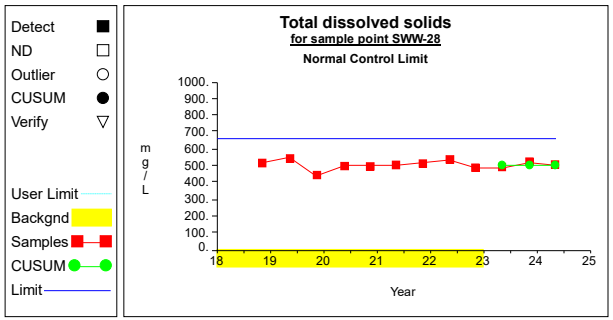
Graph 132



Graph 133

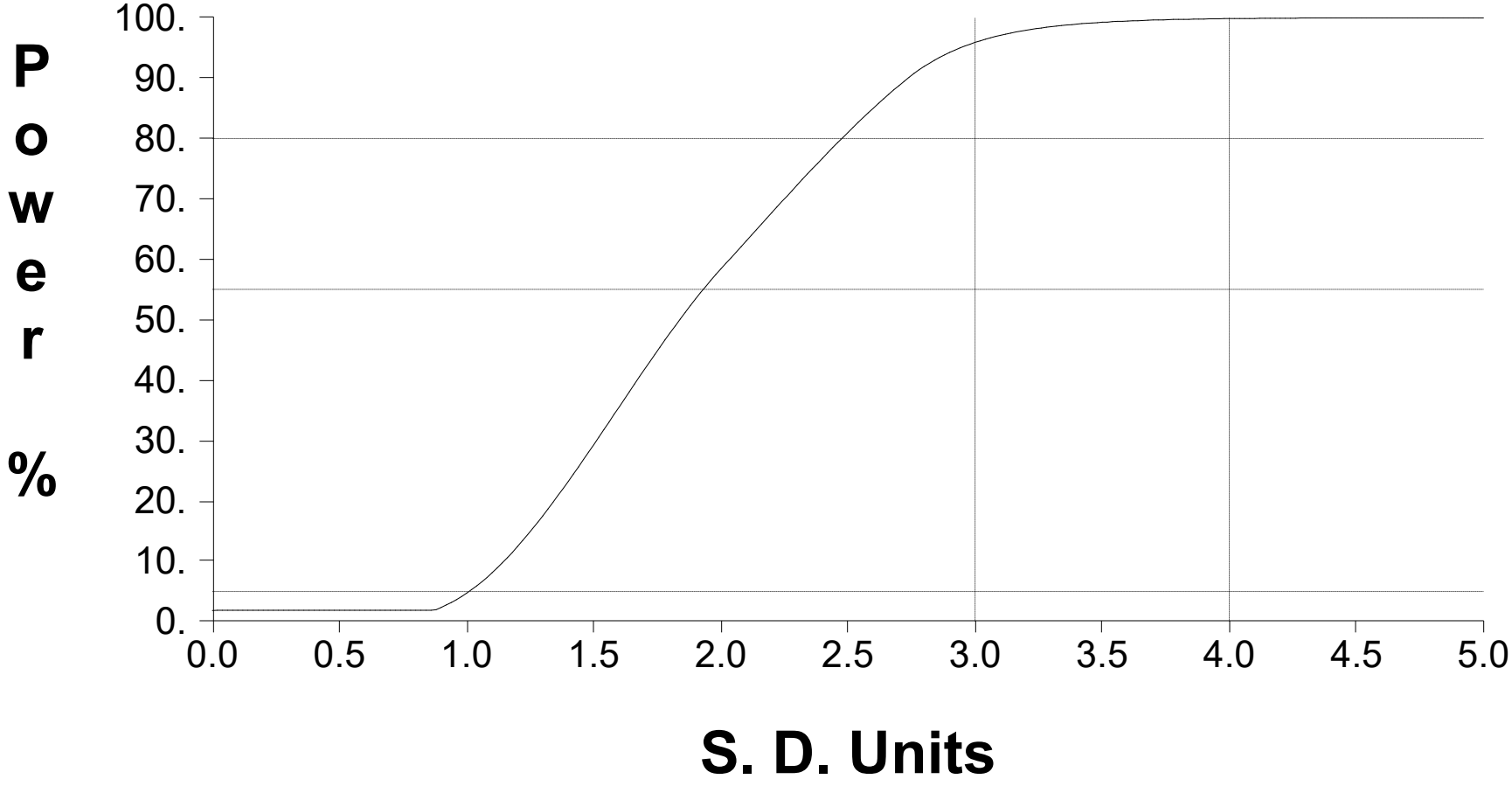


Graph 134



Graph 135

False Positive and False Negative Rates for Current Intra-Well Control Charts Monitoring Program



D3: DUMPStat Intrawell Statistical Analysis – Area 2B

Table 1: Analytical Data Summary for 5/6/2024 to 5/9/2024

Table 2: Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Table 3: Dixon's Test Outliers

Combined Shewhart-CUSUM Control Charts

Statistical Power Curve

Table 1

Analytical Data Summary for 5/6/2024 to 5/9/2024

Constituents	Units	SWW-2B-1	SWW-2B-2	SWW-2B-3	SWW-2B-4
Arsenic, dissolved	mg/L	<.001	<.001	<.001	<.001
Barium, dissolved	mg/L	<.050	.110	.067	.087
Boron, dissolved	mg/L	.290	<.020	<.020	.045
Cadmium, dissolved	mg/L	<.001	<.001	<.001	<.001
Chloride	mg/L	66.1	<10.0	11.2	30.4
Chromium, dissolved	mg/L	<.02	<.02	<.02	<.02
Fluoride	mg/L	.21	.27	.25	.15
Lead, dissolved	mg/L	<.001	<.001	<.001	<.001
Mercury, dissolved	mg/L	<.0002	<.0002	<.0002	<.0002
pH	SU	6.51	6.44	7.00	6.52
Selenium, dissolved	mg/L	<.002	<.002	<.002	<.002
Sodium, dissolved	mg/L	23.7	16.6	41.1	13.0
Specific conductance-field	umhos/cm	1240	1030	800	680
Sulfate	mg/L	317.0	28.2	60.1	99.6
Total dissolved solids	mg/L	900	624	468	448

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Arsenic, dissolved	mg/L	SWW-2B-1	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-2B-2	25	3	28			0.0010	0.0010			0.0014	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-2B-3	25	3	28			0.0010	0.0010			0.0100	nonpar	.99	**
Arsenic, dissolved	mg/L	SWW-2B-4	25	3	28			0.0010	0.0010			0.0017	nonpar	.99	**
Barium, dissolved	mg/L	SWW-2B-1	25	3	28	0.0967	0.0590	0.0500	0.0500	0.0967	0.0967	0.4214	normal		
Barium, dissolved	mg/L	SWW-2B-2	25	3	28	0.1103	0.0176	0.1100	0.1100	0.1103	0.1103	0.2070	normal		
Barium, dissolved	mg/L	SWW-2B-3	25	3	28	0.0801	0.0125	0.0730	0.0670	0.0801	0.0801	0.1487	normal		
Barium, dissolved	mg/L	SWW-2B-4	25	3	28	0.1182	0.0399	0.0850	0.0870	0.1182	0.1182	0.3379	normal		
Boron, dissolved	mg/L	SWW-2B-1	25	3	28	0.2044	0.0730	0.2900	0.2900	0.2352	0.2660	0.6061	normal		
Boron, dissolved	mg/L	SWW-2B-2	25	3	28	0.0288	0.0181	0.0200	0.0200	0.0288	0.0288	0.1282	normal		
Boron, dissolved	mg/L	SWW-2B-3	25	3	28	0.0379	0.0271	0.0200	0.0200	0.0379	0.0379	0.1870	normal		
Boron, dissolved	mg/L	SWW-2B-4	24	3	28	0.0600	0.0152	0.0610	0.0450	0.0600	0.0600	0.1434	normal		
Cadmium, dissolved	mg/L	SWW-2B-1	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-2B-2	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-2B-3	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Cadmium, dissolved	mg/L	SWW-2B-4	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Chloride	mg/L	SWW-2B-1	25	3	28	56.1920	20.7864	64.2000	66.1000	56.1920	56.1920	170.5169	normal		
Chloride	mg/L	SWW-2B-2	25	3	28	13.3200	4.0673	10.0000	10.0000	13.3200	13.3200	35.6904	normal		
Chloride	mg/L	SWW-2B-3	24	3	28	47.0708	10.1567	29.3000	11.2000	47.0708	47.0708	102.9327	normal		
Chloride	mg/L	SWW-2B-4	25	3	28	33.3920	7.1326	28.8000	30.4000	33.3920	33.3920	72.6213	normal		
Chromium, dissolved	mg/L	SWW-2B-1	25	3	28			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-2B-2	25	3	28			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-2B-3	25	3	28			0.0200	0.0200			0.0200	nonpar	.99	**
Chromium, dissolved	mg/L	SWW-2B-4	25	3	28			0.0200	0.0200			0.0200	nonpar	.99	**
Fluoride	mg/L	SWW-2B-1	25	3	28	0.1679	0.0528	0.2200	0.2100	0.1930	0.1955	0.4580	normal		
Fluoride	mg/L	SWW-2B-2	25	3	28	0.2288	0.0668	0.2600	0.2700	0.2911	0.2822	0.5960	normal		
Fluoride	mg/L	SWW-2B-3	25	3	28	0.2468	0.0575	0.2900	0.2500	0.2469	0.2468	0.5631	normal		
Fluoride	mg/L	SWW-2B-4	25	3	28	0.1720	0.0481	0.2100	0.1500	0.1739	0.1720	0.4364	normal		
Lead, dissolved	mg/L	SWW-2B-1	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-2B-2	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-2B-3	25	3	28			0.0010	0.0010			0.0010	nonpar	.99	**
Lead, dissolved	mg/L	SWW-2B-4	25	3	28			0.0010	0.0010			0.0012	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-2B-1	25	3	28			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-2B-2	25	3	28	0.0004	0.0003	0.0004	0.0002	0.0004	0.0004	0.0020	normal		
Mercury, dissolved	mg/L	SWW-2B-3	25	3	28			0.0002	0.0002			0.0002	nonpar	.99	**
Mercury, dissolved	mg/L	SWW-2B-4	25	3	28			0.0002	0.0002			0.0002	nonpar	.99	**
pH	SU	SWW-2B-1	25	3	28	6.9948	0.2945	7.0100	6.5100	6.9948	6.9948	5.37 - 8.61	normal		
pH	SU	SWW-2B-2	25	3	28	6.8420	0.2519	6.6100	6.4400	6.8420	6.8420	5.46 - 8.23	normal		
pH	SU	SWW-2B-3	25	3	28	7.2372	0.2489	7.0400	7.0000	7.2372	7.2372	5.87 - 8.61	normal		
pH	SU	SWW-2B-4	25	3	28	6.8064	0.3464	6.6400	6.5200	6.8064	6.8064	4.90 - 8.71	normal		
Selenium, dissolved	mg/L	SWW-2B-1	25	3	28			0.0020	0.0020			0.0020	nonpar	.99	**

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Table 2

Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf	
Selenium, dissolved	mg/L	SWW-2B-2	25	3	28			0.0020	0.0020			0.0020	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-2B-3	25	3	28			0.0020	0.0020			0.0021	nonpar	.99	**
Selenium, dissolved	mg/L	SWW-2B-4	25	3	28			0.0020	0.0020			0.0020	nonpar	.99	**
Sodium, dissolved	mg/L	SWW-2B-1	25	3	28	19.4040	1.9152	20.3000	23.7000	20.3232	23.1829	29.9375	normal		
Sodium, dissolved	mg/L	SWW-2B-2	25	3	28	15.0992	4.6834	11.2000	16.6000	15.0992	15.0992	40.8580	normal		
Sodium, dissolved	mg/L	SWW-2B-3	24	3	28	36.8292	10.4201	31.9000	41.1000	36.8292	36.8292	94.1395	normal		
Sodium, dissolved	mg/L	SWW-2B-4	25	3	28	14.0960	4.0817	12.5000	13.0000	14.0960	14.0960	36.5454	normal		
Specific conductance-field	umhos/cm	SWW-2B-1	25	3	28	1112.9524	160.7472	1100.0000	1240.0000	1112.9524	1119.4396	1997.0618	normal		
Specific conductance-field	umhos/cm	SWW-2B-2	25	3	28	1026.2652	202.3382	940.0000	1030.0000	1026.2652	1026.2652	2139.1255	normal		
Specific conductance-field	umhos/cm	SWW-2B-3	25	3	28	966.5548	108.2439	800.0000	800.0000	966.5548	966.5548	1561.8964	normal		
Specific conductance-field	umhos/cm	SWW-2B-4	25	3	28	782.8816	110.6948	660.0000	680.0000	782.8816	782.8816	1391.7031	normal		
Sulfate	mg/L	SWW-2B-1	25	3	28	266.5600	123.6106	15.2000	317.0000	266.5600	266.5600	946.4185	normal		
Sulfate	mg/L	SWW-2B-2	25	3	28	31.6360	3.7552	39.4000	28.2000	36.5836	31.6360	52.2896	normal		
Sulfate	mg/L	SWW-2B-3	25	3	28	114.5640	24.7954	107.0000	60.1000	114.5640	114.5640	250.9388	normal		
Sulfate	mg/L	SWW-2B-4	25	3	28	140.0400	26.0344	135.0000	99.6000	140.0400	140.0400	283.2292	normal		
Total dissolved solids	mg/L	SWW-2B-1	9	3	12	888.8889	67.8923	898.0000	900.0000	888.8889	888.8889	1262.2964	normal		
Total dissolved solids	mg/L	SWW-2B-2	9	3	12	634.6667	31.6702	624.0000	624.0000	634.6667	634.6667	808.8526	normal		
Total dissolved solids	mg/L	SWW-2B-3	9	3	12	575.5556	37.7661	533.0000	468.0000	575.5556	575.5556	783.2691	normal		
Total dissolved solids	mg/L	SWW-2B-4	9	3	12	477.5556	28.6449	492.0000	448.0000	477.5556	477.5556	635.1023	normal		

N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

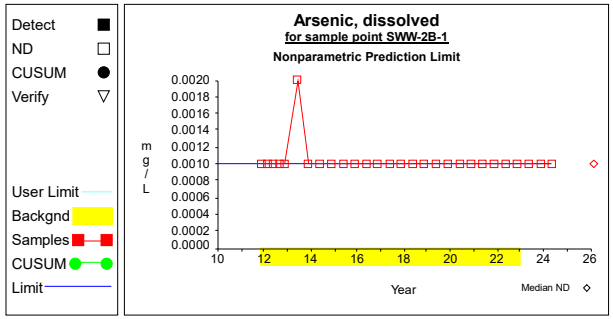
Table 3

Dixon's Test Outliers
1% Significance Level

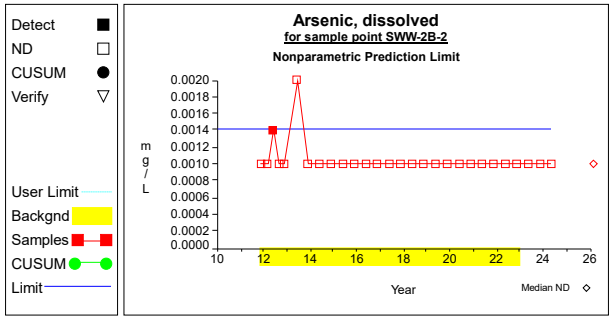
Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
Boron, dissolved	mg/L	SWW-2B-4	05/30/2013	0.8080		11/17/2011-11/09/2022	25	0.4893
Chloride	mg/L	SWW-2B-3	05/15/2019	10.0000	< 10.0000	11/17/2011-11/09/2022	25	0.4893
Sodium, dissolved	mg/L	SWW-2B-3	05/15/2019	126.0000		11/17/2011-11/09/2022	25	0.4893

N = Total number of independent measurements in background at each well.
Date Range = Dates of the first and last measurements included in background at each well.
Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

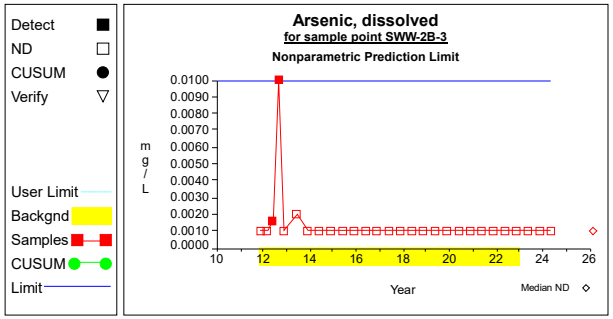
Intra-Well Control Charts / Prediction Limits



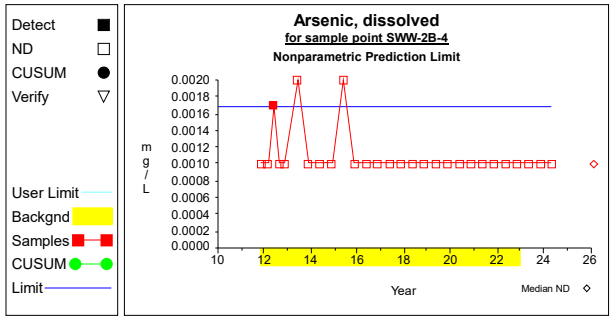
Graph 1



Graph 2

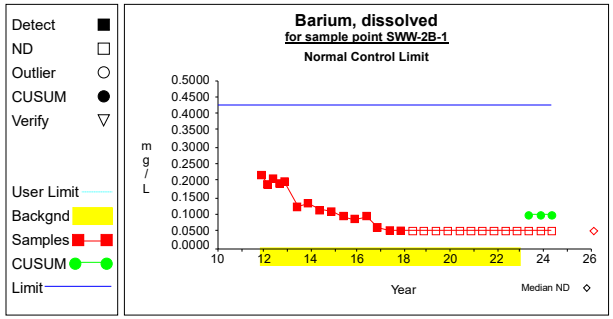


Graph 3

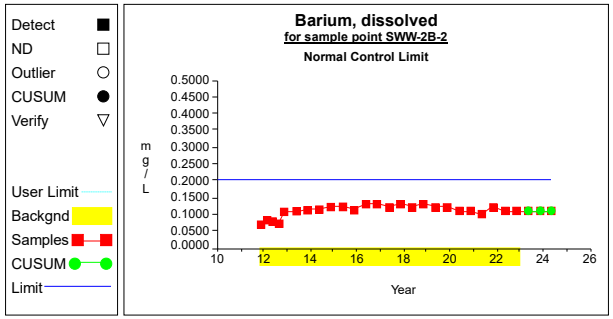


Graph 4

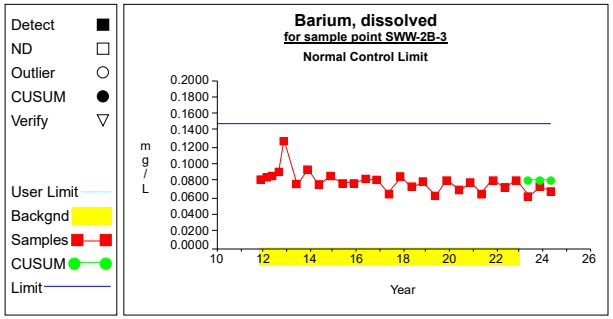
Intra-Well Control Charts / Prediction Limits



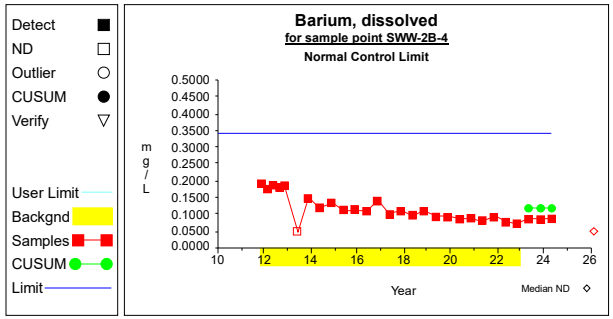
Graph 5



Graph 6

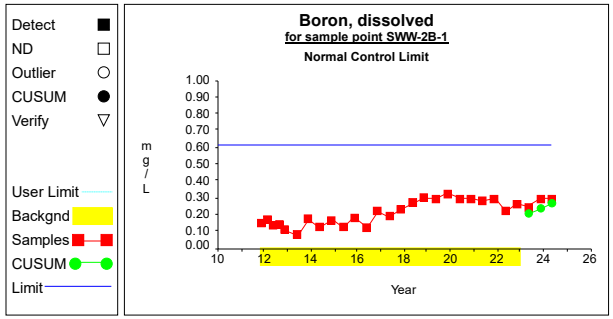


Graph 7

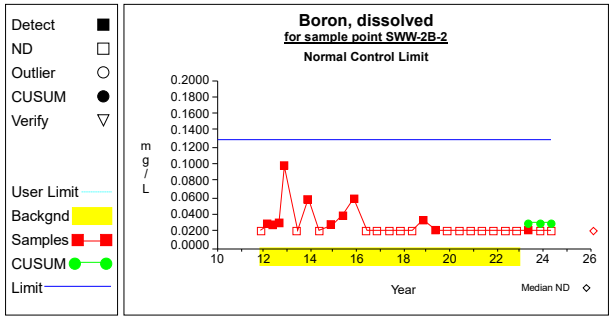


Graph 8

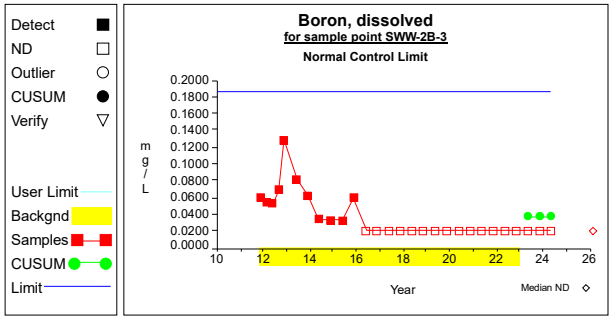
Intra-Well Control Charts / Prediction Limits



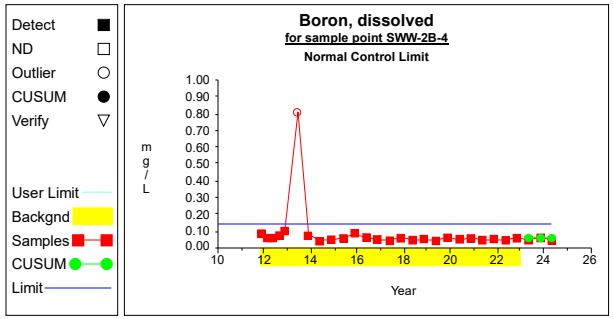
Graph 9



Graph 10

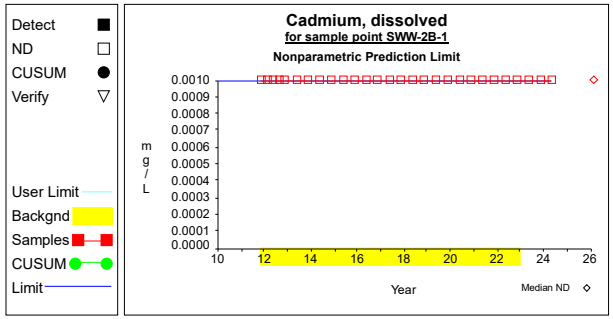


Graph 11

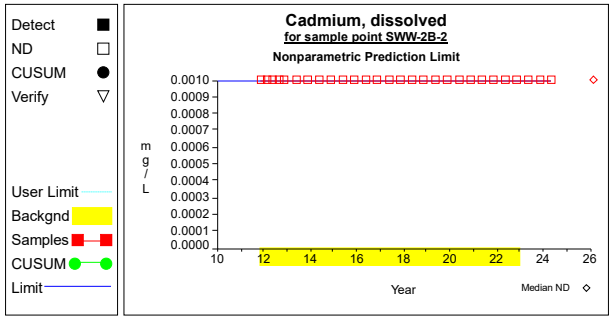


Graph 12

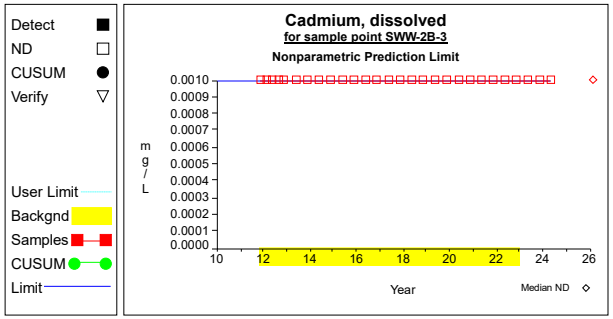
Intra-Well Control Charts / Prediction Limits



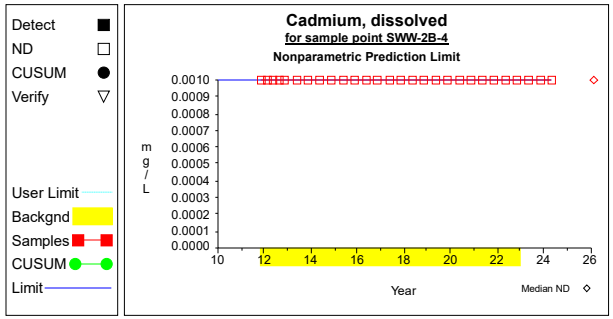
Graph 13



Graph 14

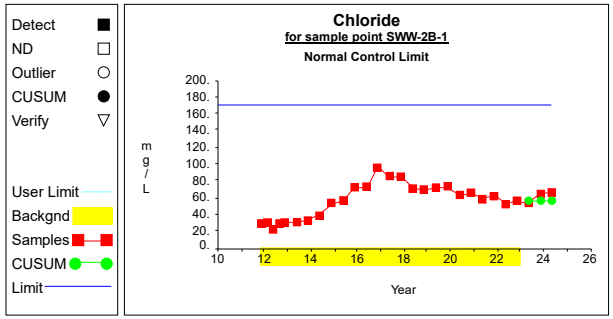


Graph 15

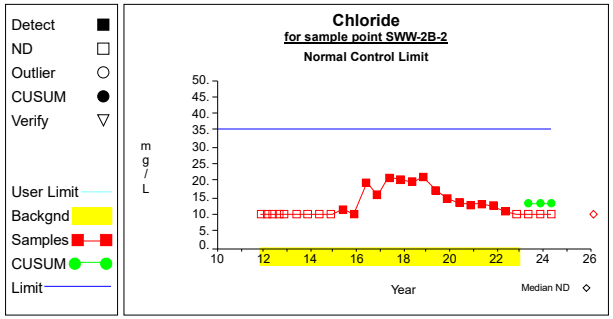


Graph 16

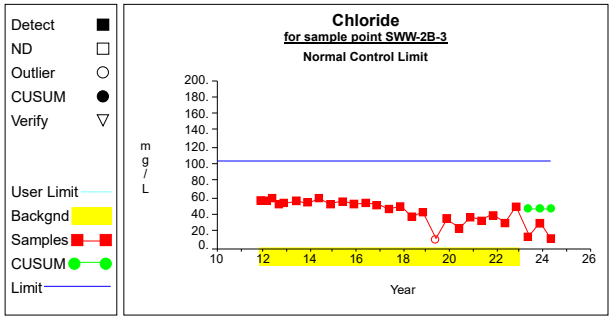
Intra-Well Control Charts / Prediction Limits



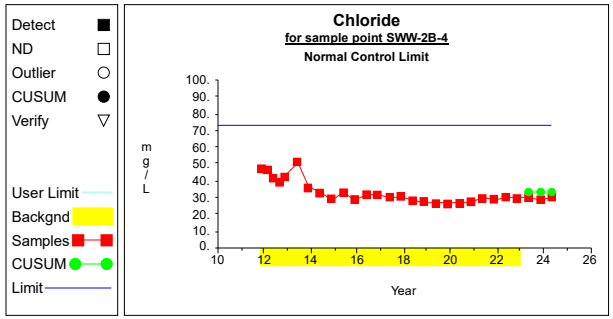
Graph 17



Graph 18

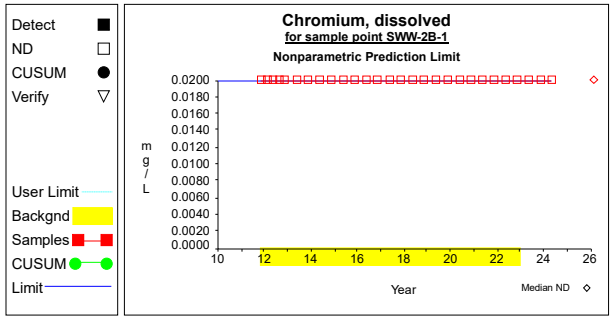


Graph 19

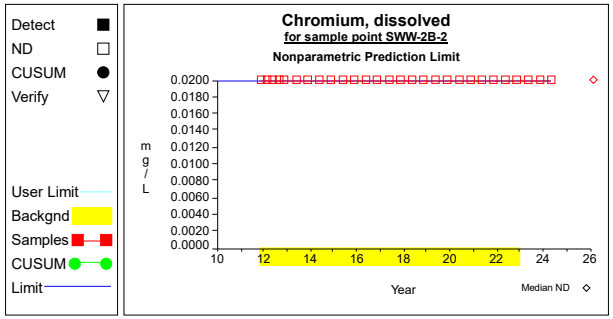


Graph 20

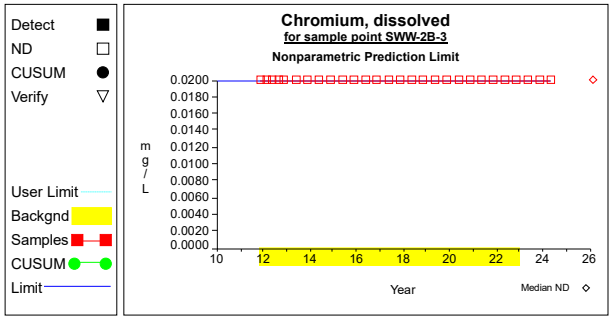
Intra-Well Control Charts / Prediction Limits



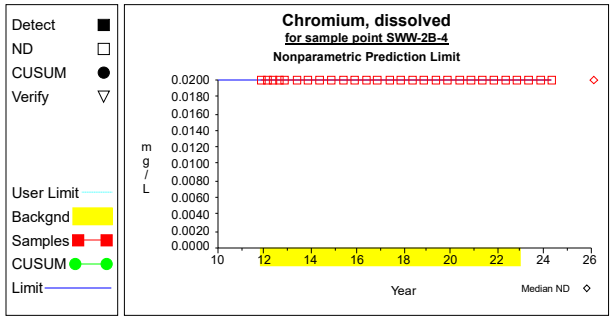
Graph 21



Graph 22

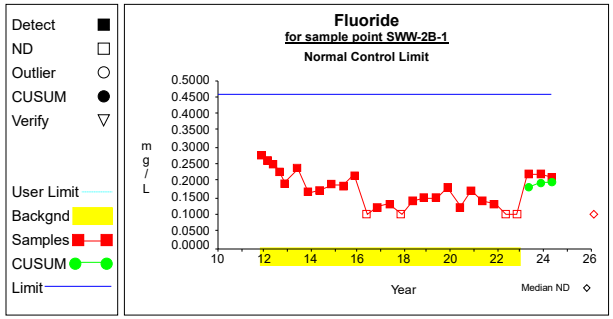


Graph 23

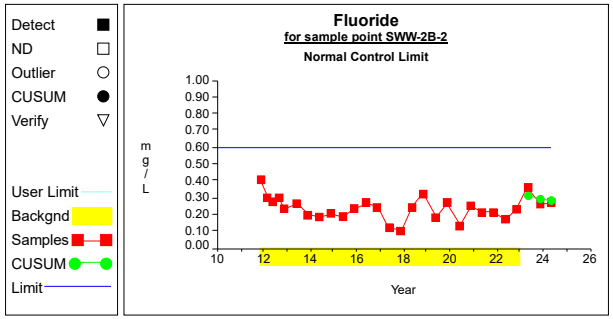


Graph 24

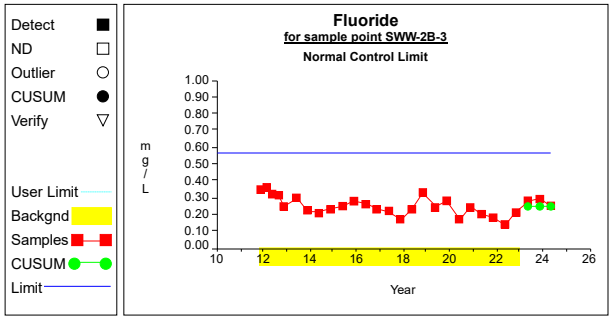
Intra-Well Control Charts / Prediction Limits



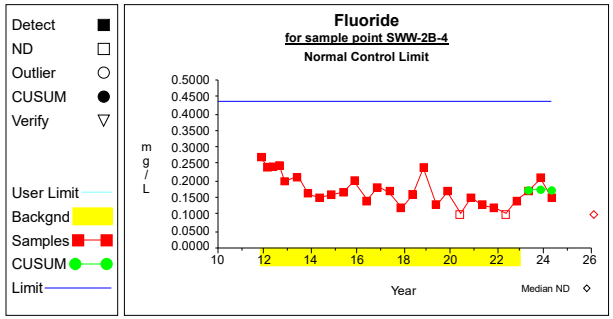
Graph 25



Graph 26

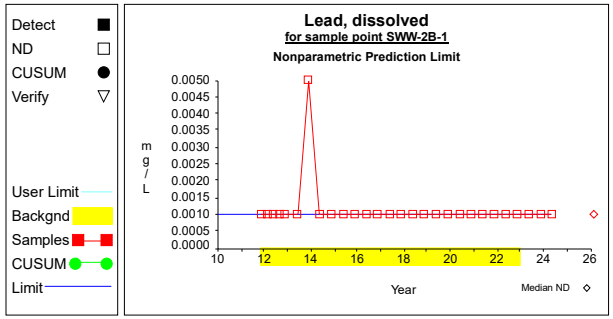


Graph 27



Graph 28

Intra-Well Control Charts / Prediction Limits



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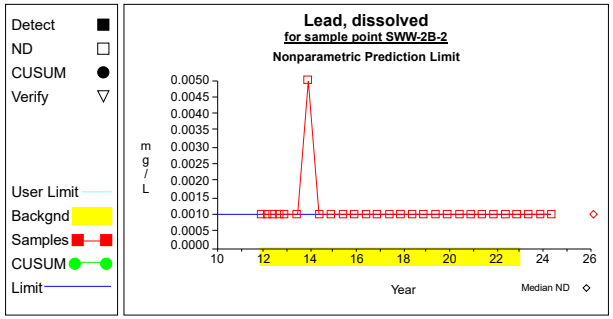
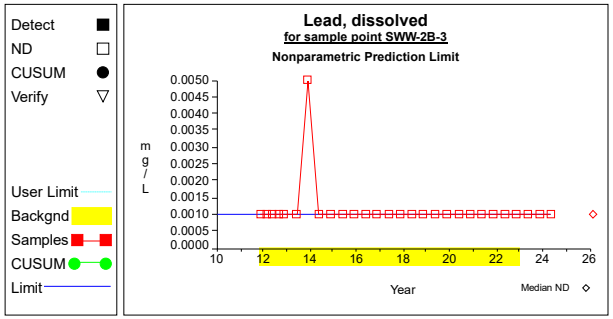


Graph 30



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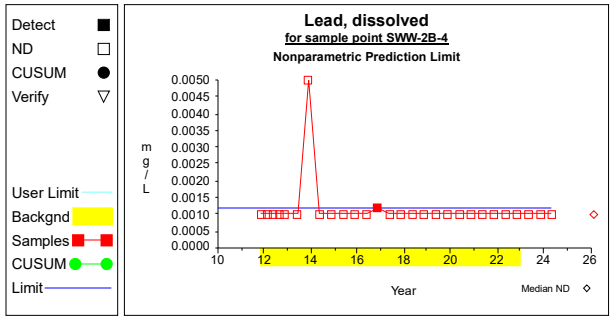
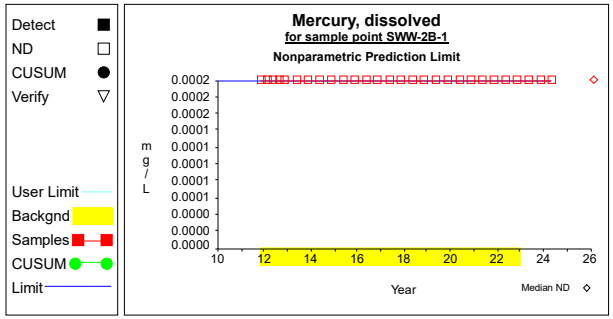


Graph 32

Intra-Well Control Charts / Prediction Limits



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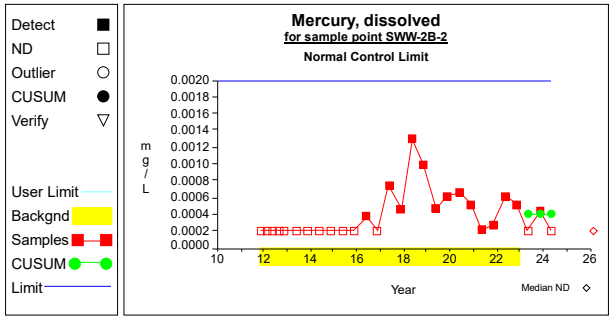

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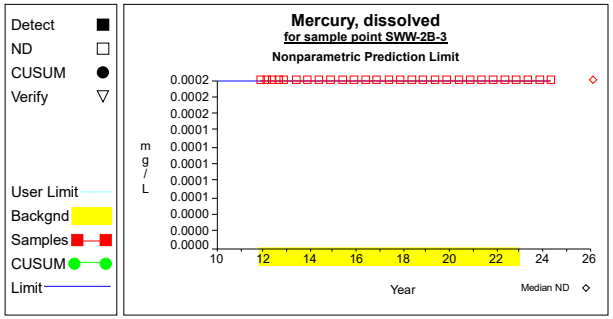

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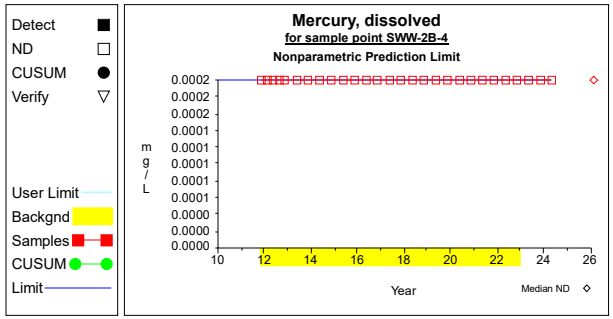
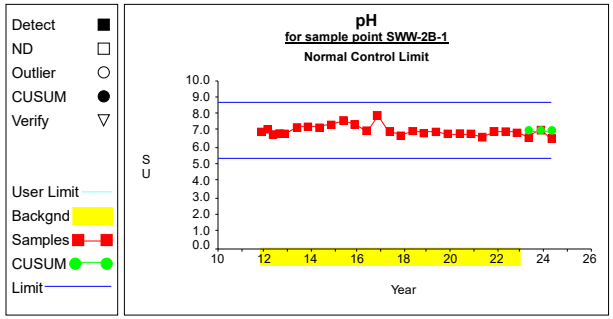
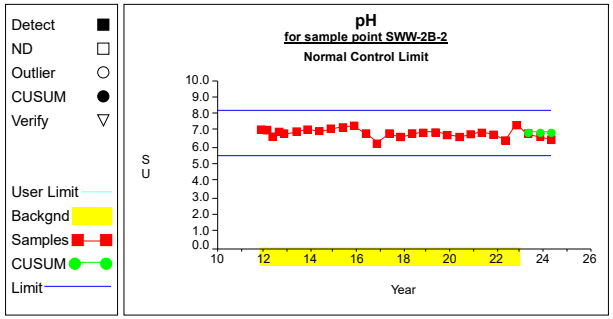


Graph 36

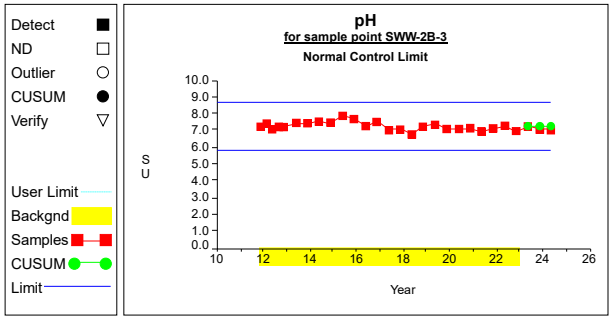
Intra-Well Control Charts / Prediction Limits



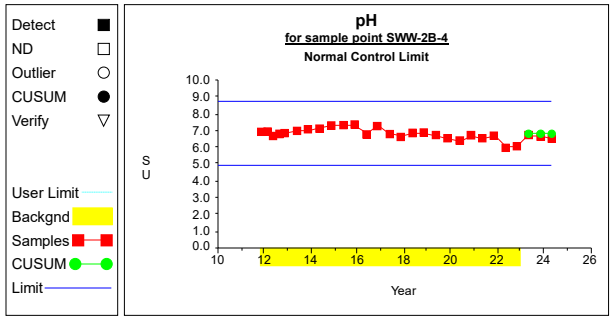
Graph 37



Graph 38

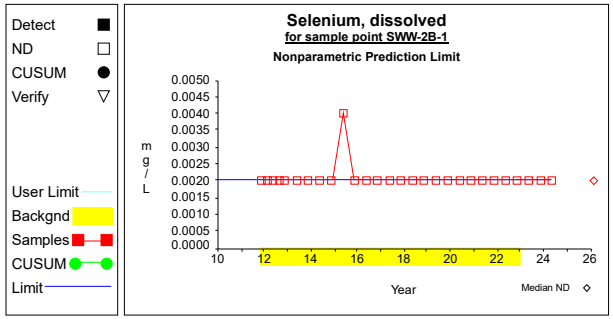


Graph 39

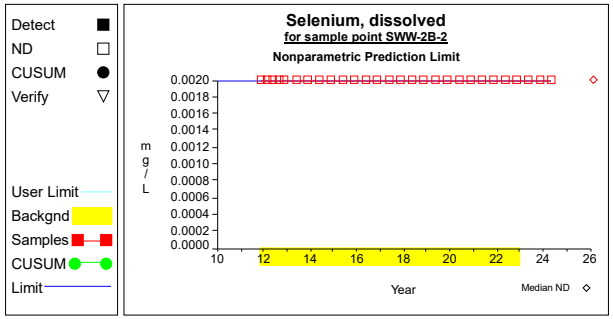


Graph 40

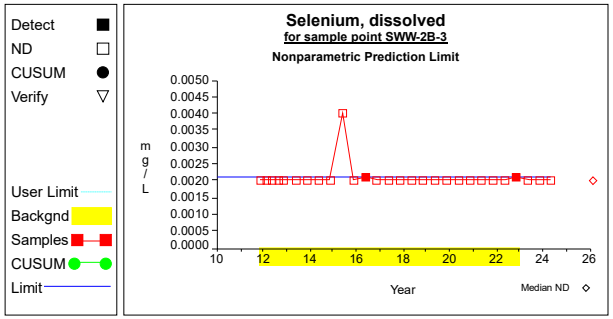
Intra-Well Control Charts / Prediction Limits



Graph 41



Graph 42



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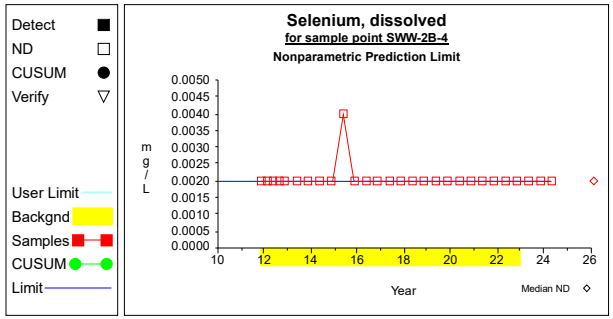
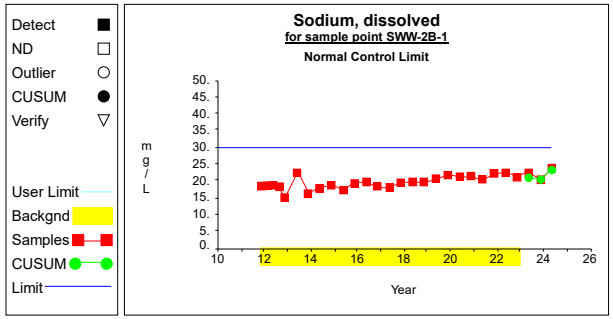


Graph 44

Intra-Well Control Charts / Prediction Limits



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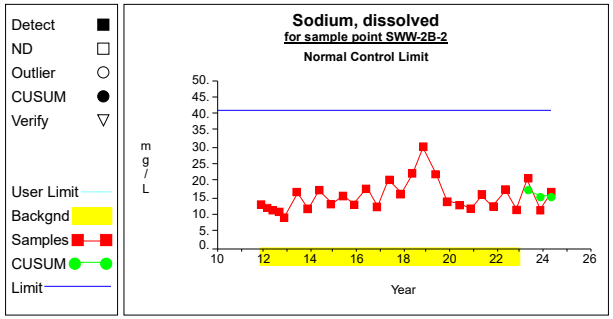

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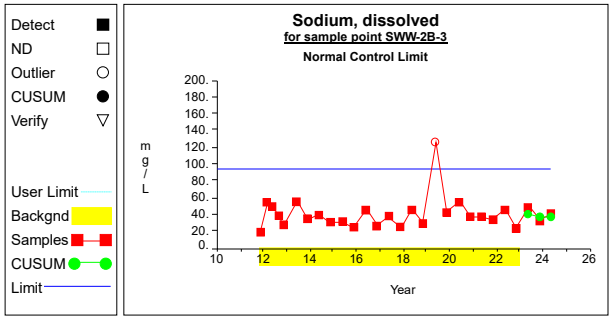

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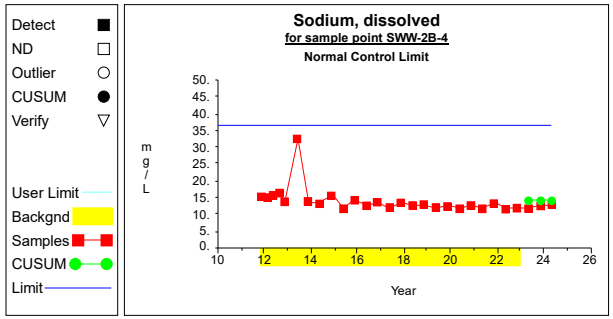
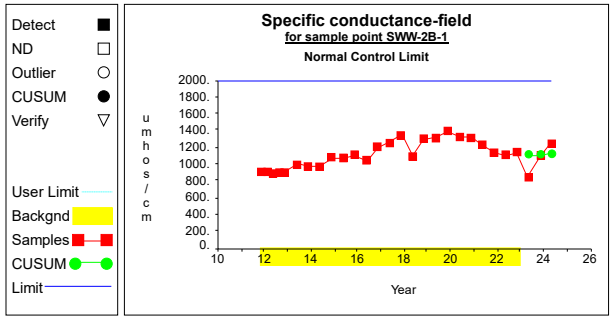
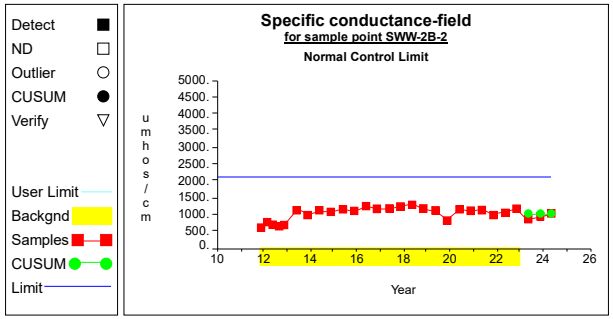


Graph 48

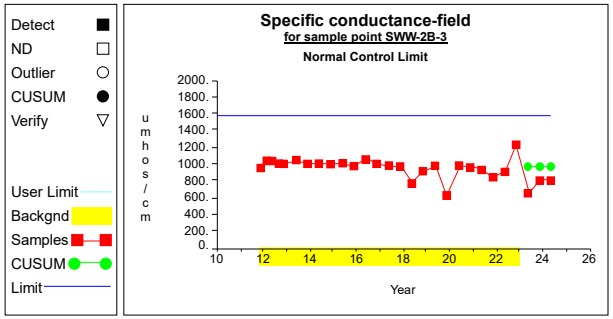
Intra-Well Control Charts / Prediction Limits



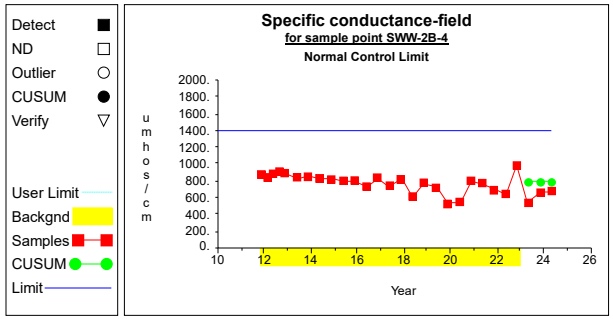
Graph 49



Graph 50

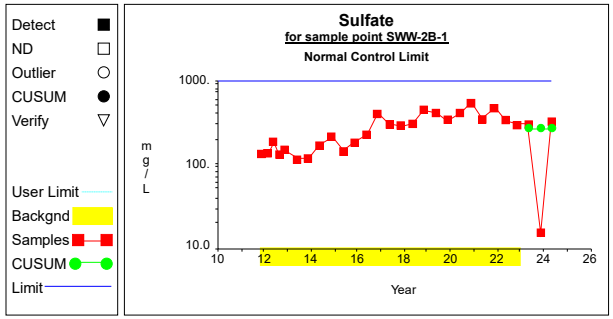


Graph 51

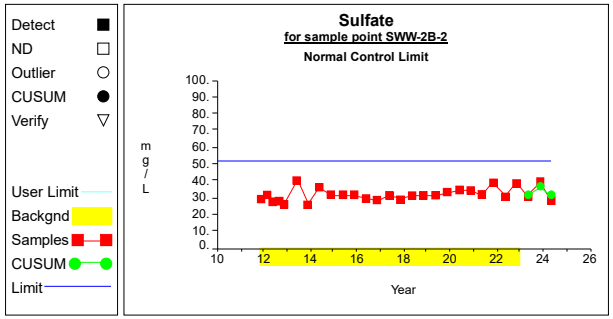


Graph 52

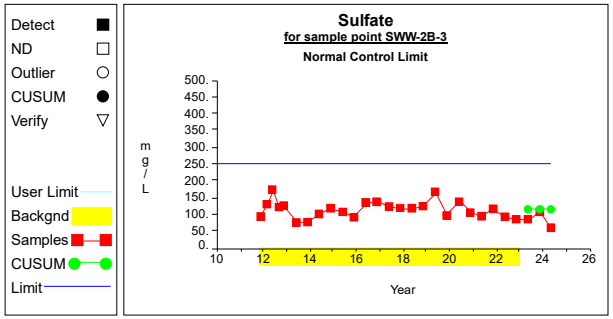
Intra-Well Control Charts / Prediction Limits



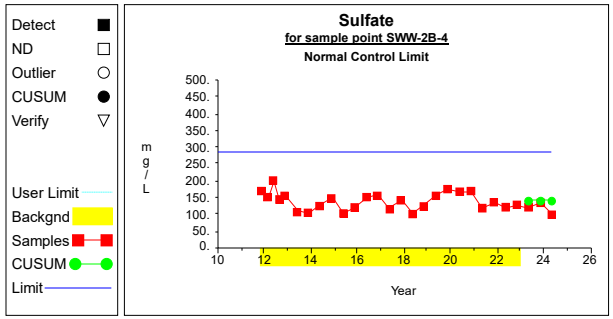
Graph 53



Graph 54

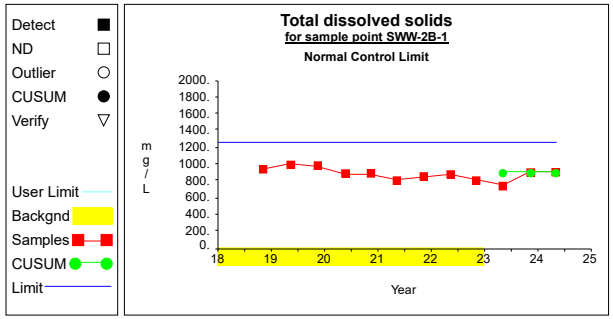


Graph 55

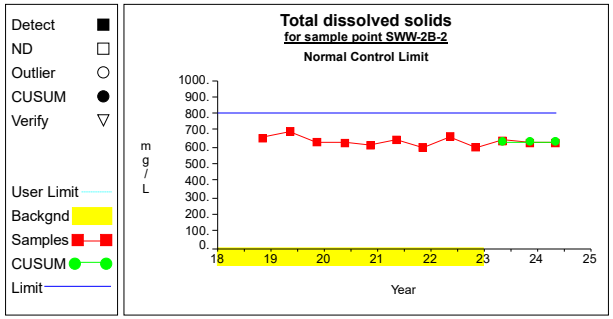


Graph 56

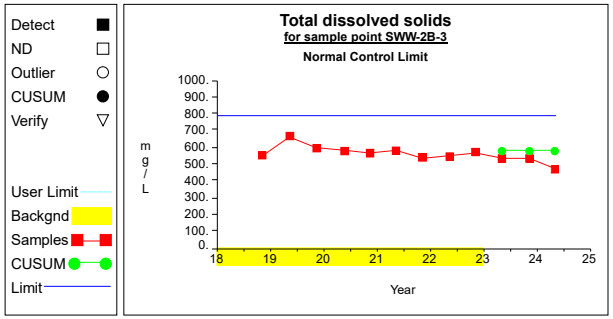
Intra-Well Control Charts / Prediction Limits



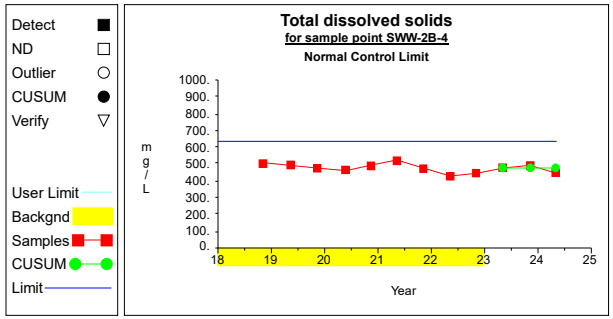
Graph 57



Graph 58

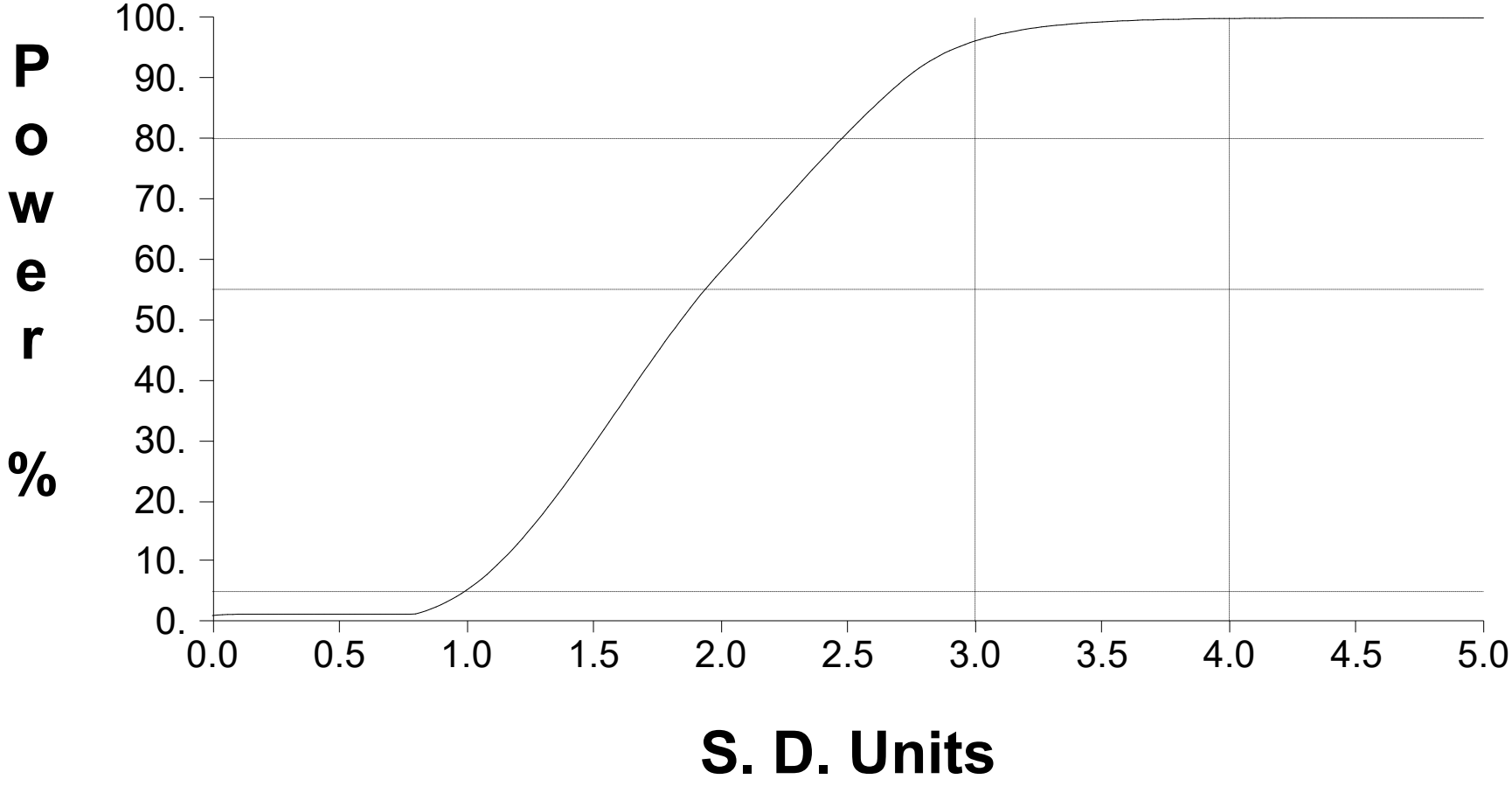


Graph 59



Graph 60

False Positive and False Negative Rates for Current Intra-Well Control Charts Monitoring Program



Appendix E: Effluent Water Discharge Point Analytical Results Summary

Hoosier Energy REC Inc
Merom Generating Station
May 2024 Sampling Event - Effluent Water Discharge Point Analytical Results

Sample Date	Sample Point	Constituent	Concentration	Concentration Unit	Reporting Limit	Detected	Analytical Method
5/9/2024	SD-1	Arsenic, Dissolved	SD-1 was not flowing during the May 2024 sampling event				
		Barium, Dissolved					
		Boron, Dissolved					
		Cadmium, Dissolved					
		Chloride					
		Chromium, Dissolved					
		Fluoride					
		Lead, Dissolved					
		Mercury, Dissolved					
		Selenium, Dissolved					
		Sodium, Dissolved					
		Sulfate					
		Total Dissolved Solids					
		pH, field					
		Specific Conductance, field					

Appendix F: Statistical Analysis for Total Dissolved Solids at Wells SWW-14, SWW-20, SWW-21, and SWW-25R

Table 1: Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Combined Shewhart-CUSUM Control Charts

Table 1

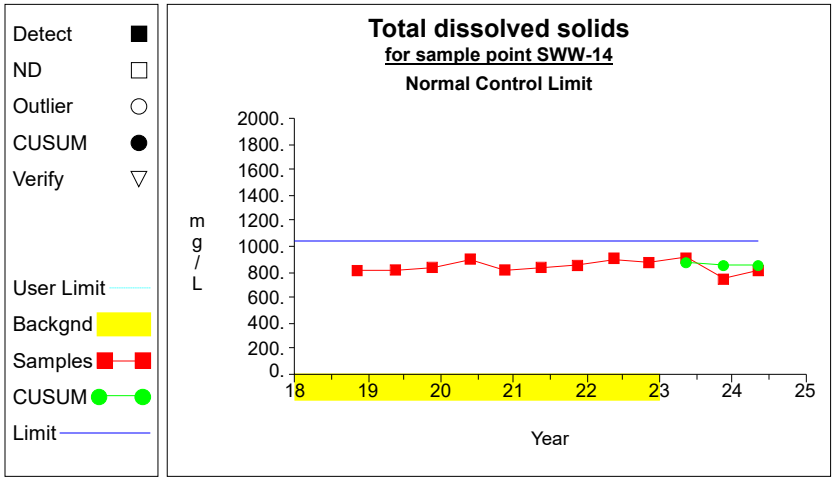
Summary Statistics and Intermediate Computations for Combined Shewhart-CUSUM Control Charts

Constituent	Units	Well	N(back)	N(mon)	N(tot)	Mean	SD	R(i-1)	R(i)	S(i-1)	S(i)	Limit	Type	Conf
Total dissolved solids	mg/L	SWW-14	9	3	50	850.2222	36.5129	744.0000	812.0000	850.2222	850.2222	1051.0434	normal	
Total dissolved solids	mg/L	SWW-20	9	3	16	931.5556	73.4270	936.0000	1070.0000	931.5556	996.5730	1335.4042	normal	
Total dissolved solids	mg/L	SWW-21	9	3	16	2706.6667	350.4996	2240.0000	2320.0000	2706.6667	2706.6667	4634.4147	normal	
Total dissolved solids	mg/L	SWW-25R	9	3	12	2024.4444	524.4786	934.0000	1650.0000	2024.4444	2024.4444	4909.0766	normal	

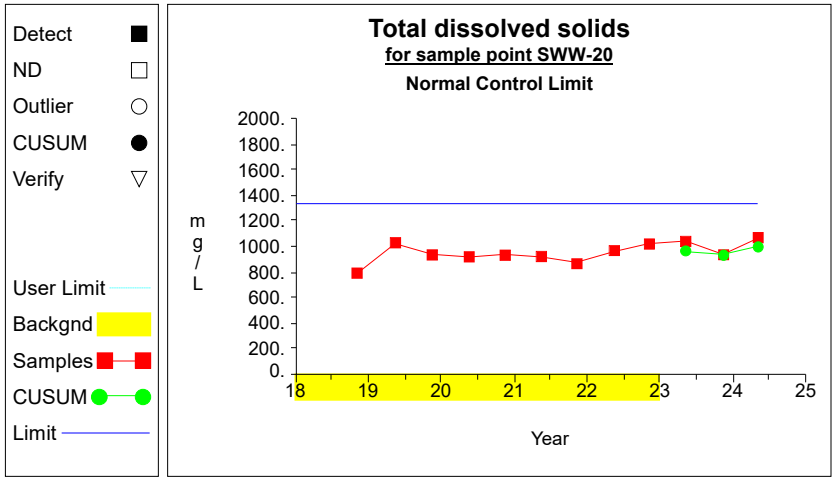
N(back) and N(mon) = Non-outlier measurements in the background and monitoring periods.
N(tot) = All independent measurements for that constituent and well.
For transformed data, mean and SD in transformed units and control limit in original units.
Conf = confidence level for passing initial test or one of two verification resamples (nonparametric test only).
* - Insufficient Data.
** - Detection Frequency < 25%.
*** - Zero Variance.

Merom Station [Area 1-2- TDS]

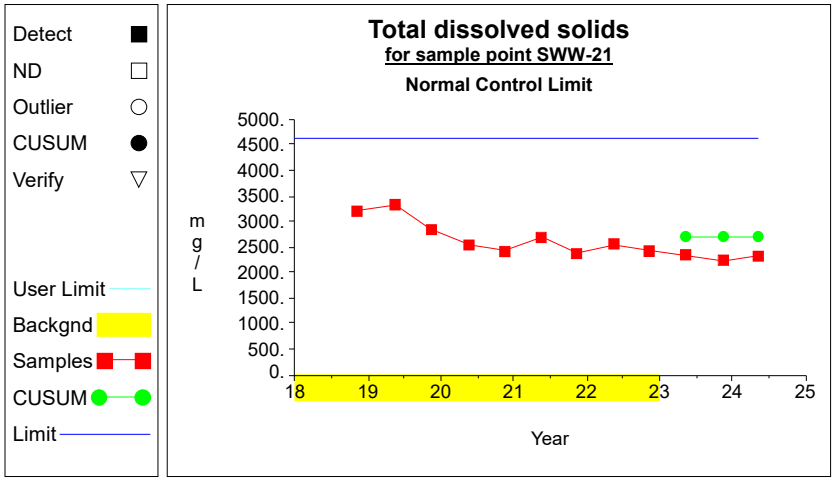
Intra-Well Control Charts / Prediction Limits



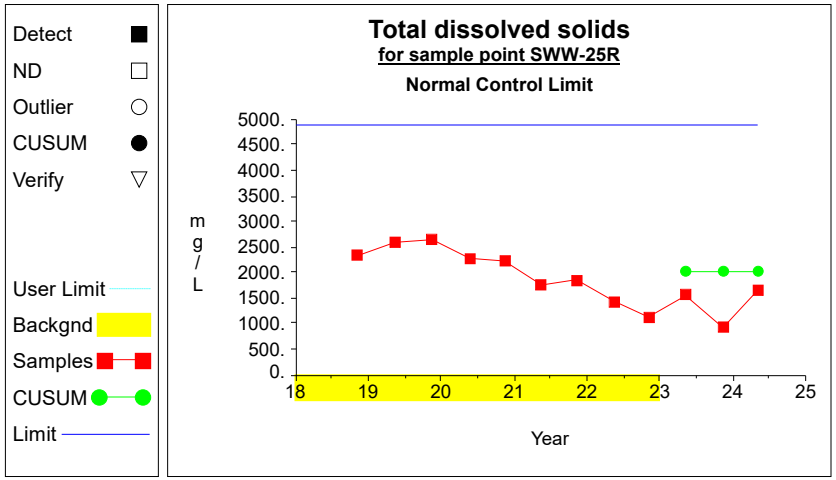
Graph 1



Graph 2



Graph 3



Graph 4