907 E. Dowling Road Unit #24
Anchorage, AK 99518
(907) 258-2155 | Fax (907) 258-6634

# ARS Aleut Analytical, LLC

## Laboratory Analytical Report

## ARS3-23-00509

City of St. Paul
Paul Zavadil
Water Plant
BOX 901
Saint Paul, AK 99660
907-600-4358
adirks@stpaulak.com, pazavadil@stpaulak.com, awegeleben@stpaulak.com, smerculief@stpaulak.com, awegeleben@stpaulak.com, smerculief@stpaulak.com

COC Number: **49294**
Project Name: **St. Paul PWS #260286 2023 CMP**
PWS #: **260286**

Questions regarding this analytical report should be addressed to ARS project manager, Jerry Baker, who can be reached by phone at 907-258-2155 or email at datareporting@aaa.aleutfederal.com.

I certify that the test results presented in this report (in either hardcopy or electronic file (EDD)) meet the requirements of the laboratory's certifications and other applicable contract terms and conditions. Any exceptions to the certification or contract will be noted within the case narratives presented in the report. Any subcontracted sample results will be identified within the case narratives presented in the report. In the event this report is an amendment to a previously released report, the case narrative will clearly identify the original report as well as the reason(s) for reissuance. A statement of uncertainty for each analysis is available upon request. I authorize release and issuance of this report on the date signed below.

| Curtis Whisman | Digitally signed by Curtis Whisman Date: 2023.05.04 10:37:38 -08'00' | Laboratory Management, ARS Aleut Analytical |
|---|---|---|
| **Signature** | **Date** | **Title** |

*This report provides analytical results of the requested analysis and does not include any opinions or interpretations. ARS Aleut Analytical, LLC assumes no liability for the use or interpretation of analytical results. Results relate only to items tested. A partial reproduction of this test report is prohibited. Reproduction of this report in full requires the written approval of the laboratory.*

Alaska Laboratory# AK00969

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# ARS Aleut Analytical, LLC
# Analytical Reports

for

# City of St. Paul

# Case Narrative

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# PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE
## TO ARS SAMPLE LABORATORY IDs

| Project ID | Client Sample ID | ARS Aleut Analytical Sample ID | AWL Sample ID | EEA Sample ID |
|---|---|---|---|---|
| 260286 | Distribution Building/Tanks Distribution | ARS3-23-00509-001 | AWL-23-00910-001 | |
| 260286 | Distribution Building/Tanks Distribution | ARS3-23-00509-002 | | 810-58798-1 |
| 260286 | Trip Blank Trip Blank | ARS3-23-00509-003 | | 810-58798-2 |

| Sample | Date Collected | Date Received | Analysis | Basis | Prep Date/Time | Analysis Date/Time |
|---|---|---|---|---|---|---|
| 001 | 04/03/23 10:20 | 04/04/23 | WCH-NO2NO3-AQ | As Received | | 04/14/23 12:30 |
| 002 | 04/03/23 10:25 | 04/04/23 | VOA-524.2-AQ | As Received | 04/03/23 10:25 | 04/07/23 12:06 |
| 003 | 04/03/23 10:25 | 04/04/23 | VOA-524.2-AQ | As Received | 04/03/23 10:25 | 04/07/23 11:42 |

**SAMPLE RECEIPT/PREP**

The samples arrived in good condition. The samples were screened for radioactive contamination as per procedure **ARS-062 "Sample Receiving"**. Sample date(s) and time(s) are listed as provided by the client. Turnaround time was set at 15 work days.

Samples were sent to Eurofins Eaton Analytical (EEA) on 04-05-2023 11:00 and arrived on 04-06-2023 08:45 at 4°C.

Samples were sent to Alaska Water Labs (AWL) on 04-05-2023 13:00 and arrived on 04-05-2023 17:05 at 4°C.

Sample 002 Comment:
Distribution Building/Tanks

Sample 001 Comment:
Distribution Building/Tanks

**ANALYTICAL METHODS**

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Volatile analyses was performed using **524.2**.

Nitrate/Nitrite analysis was performed using **SM4500 NO3E**.

The following are subcontracted analyses and have been reported to us as having met criteria, unless otherwise noted:

VOA-524.2-AQ - VOCs in drinking water

WCH-NO2NO3-AQ - Nitrate/Nitrite as N

Results for subcontracted analyses are directly behind ARS results.

## ANALYTICAL RESULTS

**No QC or CRDL warnings found.

ARS3-23-00509: 524.2: pH is checked prior to analysis at sublab. CJW 4/5/23.

ARS3-23-00509: WCH-NO2NO3-AQ Nitrate results submitted by AWL to CMDP under job # 338030. JB 5/4/2023
VOA-524.2-AQ VOCs results submitted to CMDP under job # 341975. JB 5/4/2023

# Notes (Case Narrative)

## Definitions:

| | |
|---|---|
| **CRDL** | Contract Required Detection Limit |
| **CSU** | Combined Standard Uncertainty |
| **DLC** | Decision Level Concentration (ANSI N42.23) |
| **DO** | Duplicate Original |
| **DUP** | Sample Duplicate |
| **LCS/LCSD** | Laboratory Control Sample/Laboratory Control Sample Duplicate |
| **LOD** | Limit of Detection |
| **LOQ** | Limit of Quantitation |
| **MBL** | Method Blank |
| **MCL** | Maximum Contaminant Level |
| **MDA** | Minimum Detectable Activity |
| **MDL** | Method Detection Limit |
| **MS/MSD** | Matrix Spike/Matrix Spike Duplicate |
| **N/A** | Not Applicable |
| **NC** | Not Calculated |
| **NP** | Not Provided |
| **NR** | Not Referenced |
| **PQL** | Practical Quantitation Limit |

## Data Qualifiers:

| | |
|---|---|
| **B** | The result of both the method blank and the target sample are above the MDL. |
| **D** | Sample analysis accomplished through dilution. |
| **J** | The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL. |
| **Q** | One or more quality control criteria failed. |
| **U** | Result is below the MDA, MDL, PQL, LOD, or LOQ |
| * | LCS/LCSD or Sample DUP fails all Duplicate criteria. |
| **S** | Spike |
| **SC** | Subcontracted out to another qualified laboratory. |
| **H** | Holding time exceeded |
| **E** | Exceeds MCL |
| ** | Reporting Limit is higher than MCL; Target cannot be detected |
| ǂ | Method/Matrix/Analyte not accredited for this certification |

## Radiochemistry Comments:

1.0) All MDA/MDC values are calculated on a sample specific basis.

2.0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.

3.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.

4.0) Ra-226 after ingrowth is determined via secular equilibrium with its daughter, Bismuth 214 (Gamma Spectroscopy only).

5.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228 (Gamma Spectroscopy only).

6.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234 (Gamma Spectroscopy only).

7.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).

8.0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected (Gamma Spectroscopy only).

9.0) Gamma spectroscopy results are calculated values based on the **ORTEC**® GammaVision ENV32 Analysis Engine.

10.0) DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Non-Potable Water**:
Gross Alpha and Gross Beta (EPA 900.0, EPA 9310); Radium 226 (EPA 903.0, EPA 903.1, EPA 9315); Radium 228 (EPA 904.0, EPA 9320); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7470A); Strontium-89 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0, Eichrom SRW01, HASL 300 Sr-02-RC); Tritium (EPA 906.0); Enriched Tritium (ARS-040), Carbon-14 (ARS-019), Tritium/Carbon (ARS-151); Gamma Emitters (EPA 901.1, SM 7120B, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Am-03); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Pu-10); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235,

11.0) Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Technetium-99 (Eichrom TCW02)
DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Solid and Chemical Materials**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); ICP/MS (EPA 6020B); ICP-OES (EPA 6010D); Mercury CVAA (EPA 7471B); Strontium-89 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-01); Strontium-90 (EPA 905.0 Mod, Eichrom SRW01, HASL 300 Sr-02); Tritium (EPA 906.0 Mod); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03, HASL 300 Am-01-RC); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 Pu-

12.0) 02-RC, HASL 300 Pu-03-RC); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03, HASL 300 U-02, HASL 300 U-04); Technetium-99 (Eichrom TCS01)
DoD/DOE and ISO 17025 certifications through ANAB apply only to the following methods in **Air and Emissions**:
Gross Alpha and Gross Beta (EPA 900.0 Mod, EPA 9310); Strontium-89 (Eichrom SRW01, HASL 300 Sr-01-RC); Strontium-90 (Eichrom SRW01, HASL 300 Sr-02-RC); Gamma Emitters (EPA 901.1, HASL 300 Ga-01-R); Americium-241 (Eichrom ACW03, HASL 300 Se-03); Neptunium 237 (Eichrom ACW16); Plutonium 238, Plutonium 239/240, Plutonium-241 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Thorium-228, Thorium 230, Thorium-232 (Eichrom ACW10); Uranium-234, Uranium-235, Uranium-238 (Eichrom ACW03, Eichrom ACW16, HASL 300 Se-03); Technetium-99 (Eichrom TCW02, Eichrom TCS01)

## General Comments:

1.0 Modified analysis procedures are procedures that are modified to meet certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of “M” or “Mod” to the procedure number (i.e. 901.1M, 901.1 Mod).

2.0 All NIOSH method results are reported without blank corrections applied.

3.0 Basis: “As Received” = analyzed as received from client; “Dry” = dried prior to being analyzed; “Dry Weight Corrected” = analyzed as received; result corrected for percent moisture.

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# ARS Aleut Analytical, LLC
# Analytical Reports

for

# City of St. Paul

# Analytical Results

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Amanda Seba
ARS Aleut Analytical, LLC
907 East Dowling Road, Unit #24
Anchorage, Alaska 99518

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## JOB DESCRIPTION

ARS3-23-00509

## JOB NUMBER

810-58798-1

Eurofins Eaton Analytical South Bend
110 S Hill Street
South Bend IN 46617

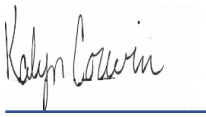
See page two for job notes and contact information.

## Job Notes

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

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

## Authorization



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Authorized for release by
Kalyn Corwin, Project Manager
Kalyn.Corwin@et.eurofinsus.com
(574)233-4777

# Table of Contents

# Definitions/Glossary

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

## Glossary

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

## Job ID: 810-58798-1

**Laboratory: Eurofins Eaton Analytical South Bend**

**Narrative**

**Job Narrative**
**810-58798-1**

**Receipt**

The samples were received on 4/6/2023 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

**GC/MS VOA**

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

# Detection Summary

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

**Client Sample ID: ARS3-23-00509-002** — **Lab Sample ID: 810-58798-1**

No Detections.

**Client Sample ID: ARS3-23-00509-003** — **Lab Sample ID: 810-58798-2**

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

## Client Sample ID: ARS3-23-00509-002

**Lab Sample ID: 810-58798-1**

**Date Collected: 04/03/23 10:25**

**Matrix: Drinking Water**

**Date Received: 04/06/23 08:45**

### Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Carbon tetrachloride | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Chlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| 1,2-Dichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| 1,4-Dichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| 1,2-Dichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| 1,1-Dichloroethene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| cis-1,2-Dichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| trans-1,2-Dichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Dichloromethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| 1,2-Dichloropropane | <0.25 | | 0.25 | | ug/L | | | 04/07/23 12:06 | 1 |
| Ethylbenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Styrene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Tetrachloroethene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Toluene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| 1,2,4-Trichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| 1,1,1-Trichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| 1,1,2-Trichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Trichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Vinyl chloride | <0.20 | | 0.20 | | ug/L | | | 04/07/23 12:06 | 1 |
| m-Xylene & p-Xylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| o-Xylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |
| Xylenes, Total | <0.50 | | 0.50 | | ug/L | | | 04/07/23 12:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *70 - 130* | | *04/07/23 12:06* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *70 - 130* | | *04/07/23 12:06* | *1* |
| *4-Bromofluorobenzene (Surr)* | *93* | | *70 - 130* | | *04/07/23 12:06* | *1* |
| *1,2-Dichlorobenzene-d4 (Surr)* | *90* | | *70 - 130* | | *04/07/23 12:06* | *1* |

## Client Sample ID: ARS3-23-00509-003

**Lab Sample ID: 810-58798-2**

**Date Collected: 04/03/23 10:25**

**Matrix: Drinking Water**

**Date Received: 04/06/23 08:45**

### Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| Carbon tetrachloride | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| Chlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| 1,2-Dichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| 1,4-Dichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| 1,2-Dichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| 1,1-Dichloroethene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| cis-1,2-Dichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| trans-1,2-Dichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| Dichloromethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| 1,2-Dichloropropane | <0.25 | | 0.25 | | ug/L | | | 04/07/23 11:42 | 1 |
| Ethylbenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| Styrene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| Tetrachloroethene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

**Client Sample ID: ARS3-23-00509-003**
**Date Collected: 04/03/23 10:25**
**Date Received: 04/06/23 08:45**

**Lab Sample ID: 810-58798-2**
**Matrix: Drinking Water**

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Toluene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| 1,2,4-Trichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| 1,1,1-Trichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| 1,1,2-Trichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| Trichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| Vinyl chloride | <0.20 | | 0.20 | | ug/L | | | 04/07/23 11:42 | 1 |
| m-Xylene & p-Xylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| o-Xylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |
| Xylenes, Total | <0.50 | | 0.50 | | ug/L | | | 04/07/23 11:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *70 - 130* | | *04/07/23 11:42* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *70 - 130* | | *04/07/23 11:42* | *1* |
| *4-Bromofluorobenzene (Surr)* | *91* | | *70 - 130* | | *04/07/23 11:42* | *1* |
| *1,2-Dichlorobenzene-d4 (Surr)* | *89* | | *70 - 130* | | *04/07/23 11:42* | *1* |

# Surrogate Summary

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

**Matrix: Drinking Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | DCA | TOL | BFB | DCZ |
| Lab Sample ID | Client Sample ID | (70-130) | (70-130) | (70-130) | (70-130) |
| 810-58798-1 | ARS3-23-00509-002 | 101 | 100 | 93 | 90 |
| 810-58798-2 | ARS3-23-00509-003 | 99 | 100 | 91 | 89 |
| MB 810-54522/5 | Method Blank | 96 | 99 | 87 | 88 |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DCZ = 1,2-Dichlorobenzene-d4 (Surr)

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 810-54522/5**
**Matrix: Drinking Water**
**Analysis Batch: 54522**

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

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Carbon tetrachloride | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Chlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| 1,2-Dichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| 1,4-Dichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| 1,2-Dichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| 1,1-Dichloroethene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| cis-1,2-Dichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| trans-1,2-Dichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Dichloromethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| 1,2-Dichloropropane | <0.25 | | 0.25 | | ug/L | | | 04/07/23 07:41 | 1 |
| Ethylbenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Styrene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Tetrachloroethene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Toluene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| 1,2,4-Trichlorobenzene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| 1,1,1-Trichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| 1,1,2-Trichloroethane | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Trichloroethylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Vinyl chloride | <0.20 | | 0.20 | | ug/L | | | 04/07/23 07:41 | 1 |
| m-Xylene & p-Xylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| o-Xylene | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |
| Xylenes, Total | <0.50 | | 0.50 | | ug/L | | | 04/07/23 07:41 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *70 - 130* | | *04/07/23 07:41* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 130* | | *04/07/23 07:41* | *1* |
| *4-Bromofluorobenzene (Surr)* | *87* | | *70 - 130* | | *04/07/23 07:41* | *1* |
| *1,2-Dichlorobenzene-d4 (Surr)* | *88* | | *70 - 130* | | *04/07/23 07:41* | *1* |

# QC Association Summary

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

## GC/MS VOA

### Analysis Batch: 54522

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 810-58798-1 | ARS3-23-00509-002 | Total/NA | Drinking Water | 524.2 | |
| 810-58798-2 | ARS3-23-00509-003 | Total/NA | Drinking Water | 524.2 | |
| MB 810-54522/5 | Method Blank | Total/NA | Drinking Water | 524.2 | |

# Lab Chronicle

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

## Client Sample ID: ARS3-23-00509-002

**Lab Sample ID: 810-58798-1**

**Date Collected: 04/03/23 10:25**

**Matrix: Drinking Water**

**Date Received: 04/06/23 08:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 524.2 | | 1 | 54522 | CM | EA SB | 04/07/23 12:06 |

## Client Sample ID: ARS3-23-00509-003

**Lab Sample ID: 810-58798-2**

**Date Collected: 04/03/23 10:25**

**Matrix: Drinking Water**

**Date Received: 04/06/23 08:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 524.2 | | 1 | 54522 | CM | EA SB | 04/07/23 11:42 |

**Laboratory References:**

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

# Accreditation/Certification Summary

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

## Laboratory: Eurofins Eaton Analytical South Bend

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Alaska | State | IN00035 | 06-30-23 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 524.2 | | Drinking Water | m-Xylene & p-Xylene |
| 524.2 | | Drinking Water | o-Xylene |

# Method Summary

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 524.2 | Volatile Organic Compounds (GC/MS) | EPA-DW | EA SB |

**Protocol References:**

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

**Laboratory References:**

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

# Sample Summary

Client: ARS Aleut Analytical, LLC
Project/Site: ARS3-23-00509

Job ID: 810-58798-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 810-58798-1 | ARS3-23-00509-002 | Drinking Water | 04/03/23 10:25 | 04/06/23 08:45 |
| 810-58798-2 | ARS3-23-00509-003 | Drinking Water | 04/03/23 10:25 | 04/06/23 08:45 |

# AAA Chain of Custody

810-58798 Chain of Custody

| Lab Name & Address: | Testing Laboratory: | COC Number: ARS3-23-00509-1-1 |
|---|---|---|
| AAA Anchorage, AK<br>907 E. Dowling Road Unit #24<br>Anchorage, AK 99518 | Eurofins Eaton Analytical (EEA)<br>110 South Hill Street<br><br>South Bend, IN 46617 | PO Number:<br>Required Certification: Alaska DW<br>Turnaround Time: 13 Business Days |
| Report To: Tyler Wilhelm<br>Phone No: 907-258-2155<br>Email: | Special Instructions: | |

| Client Sample Identification (Name, Designation, Location, etc.) | Date Sampled | Time Sampled | Matrix | No. Of Containers | Comments | EPA 524.2 - VOAs | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARS3-23-00509-002 | 04/03/23 | 10:25 | FC | 4 | VOC | X | | | | | | | | | | | |
| ARS3-23-00509-003 | 04/03/23 | 10:25 | FC | 2 | VOC Trip Blank | X | | | | | | | | | | | |

Client Provided Sample Container

LTB VIALS CONTAIN ACCEPTABLE BUBBLES

Initial Temp: 3.8
Corrected Temp: 3.8
Cooler ID: 21
Blue

| Relinquished By: | Date | Time | Received By: | Date | Time | Additional Comments: |
|---|---|---|---|---|---|---|
| [signature] | 4-5-23 | 1100 | [signature] | 4-6-23 | 0845 | |
| Relinquished By: | Date | Time | Received By: | Date | Time | |
| | | | | | | |

## Test Method Information - ARS3-23-00509 STD TARGETS

Eurofins Eaton Analytical (EEA)

Method Name: EPA 524.2
Description: VOCs in drinking water
Matrix: Finished - Chlorinated
Report To: MDL

| | | | LCS Limit | | Matrix Spike Limit | | |
|---|---|---|---|---|---|---|---|
| Analyte Name | CAS Number | Units | LCL | UCL | LCL | UCL | CRDL |
| 1,1,1-Trichloroethane | 71-55-6 | ug/L | 90 | 110 | 80 | 120 | |
| 1,1,2-Trichloroethane | 79-00-5 | ug/L | 90 | 110 | 80 | 120 | |
| 1,1-Dichloroethene | 75-35-4 | ug/L | 90 | 110 | 80 | 120 | |
| 1,2,4-Trichlorobenzene | 120-82-1 | ug/L | 90 | 110 | 80 | 120 | |
| 1,2-Dichlorobenzene | 95-50-1 | ug/L | 90 | 110 | 80 | 120 | |
| 1,2-Dichloroethane | 107-06-2 | ug/L | 90 | 110 | 80 | 120 | |
| 1,2-Dichloropropane | 78-87-5 | ug/L | 90 | 110 | 80 | 120 | |
| 1,4-Dichlorobenzene | 106-46-7 | ug/L | 90 | 110 | 80 | 120 | |
| Benzene | 71-43-2 | ug/L | 90 | 110 | 80 | 120 | |
| Carbon tetrachloride | 56-23-5 | ug/L | 90 | 110 | 80 | 120 | |
| Chlorobenzene | 108-90-7 | ug/L | 90 | 110 | 80 | 120 | |
| cis-1,2,-Dichloroethene | 156-59-2 | ug/L | 90 | 110 | 80 | 120 | |
| Ethylbenzene | 100-41-4 | ug/L | 90 | 110 | 80 | 120 | |
| Methylene Chloride | 75-09-2 | ug/L | 90 | 110 | 80 | 120 | |
| Styrene | 100-42-5 | ug/L | 90 | 110 | 80 | 120 | |
| Tetrachloroethene | 127-18-4 | ug/L | 90 | 110 | 80 | 120 | |
| Toluene | 108-88-3 | ug/L | 90 | 110 | 80 | 120 | |
| trans-1,2 Dichloroethene | 156-60-5 | ug/L | 90 | 110 | 80 | 120 | |
| Trichloroethene | 79-01-6 | ug/L | 90 | 110 | 80 | 120 | |
| Vinyl Chloride | 75-01-4 | ug/L | 90 | 110 | 80 | 120 | |
| Xylenes, total | 1330-20-7 | ug/L | 90 | 110 | 80 | 120 | |

Target Analytes By Sample:

**ARS3-23-00509-002**: 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethene, 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,4-Dichlorobenzene, Benzene, Carbon tetrachloride, Chlorobenzene, cis-1,2,-Dichloroethene, Ethylbenzene, Methylene Chloride, Styrene, Tetrachloroethene, Toluene, trans-1,2 Dichloroethene, Trichloroethene, Vinyl Chloride, Xylenes, total

Additional Comments: VOC, VOC, VOC, VOC

**ARS3-23-00509-003**: 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethene, 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,4-Dichlorobenzene, Benzene, Carbon tetrachloride, Chlorobenzene, cis-1,2,-Dichloroethene, Ethylbenzene, Methylene Chloride, Styrene, Tetrachloroethene, Toluene, trans-1,2 Dichloroethene, Trichloroethene, Vinyl Chloride, Xylenes, total

Additional Comments: VOC Trip Blank, VOC Trip Blank

# Login Sample Receipt Checklist

Client: ARS Aleut Analytical, LLC

Job Number: 810-58798-1

**Login Number: 58798**

**List Source: Eurofins Eaton Analytical South Bend**

**List Number: 1**

**Creator: Spurgeon, Sheri**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Samples do not require splitting or compositing. | True | |
| Container provided by EEA | False | Client provided containers |

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

**Client** ARS
**Contact** Amanda Seba

**Project Name** ARS3-23-00509-2-1

**AWL #** AWL-23-00910
**PWS #** AK2260286

Please direct any questions regarding the final report to Mary@AKWaterLabs.com or Matt@AKWaterLabs.com, or call 907-373-6130.

The results presented in this report meet the requirement of the laboratory's certifications and internal QC processes. Any exceptions will be noted in the case narratives attached. Subcontract data will be entered into the AWL final report, however a full subcontract report is kept on file and available upon request.

The attached should contain analytical results for the analyses submitted on the client chain of custody. The information includes no opinions of the analysts or labs, data is represented after meeting certified testing requirements, and quality control measures.



_____ _____

Signature of Laboratory Management Date

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

| | | | |
|---|---|---|---|
| Client Project Name | ARS3-23-00509-2-1 | AWL # | AWL-23-00910 |
| Receipt Date and Time | 4/5/2023 17:05 | Due Date | 4/19/2023 |
| Cooler/Sample Temp (C) | 4.36C (RT#1) | Sampler Initials | AD |
| Sample Receipt Comments | Sample received by AKS on 4/5/2023 at 4.36C (RT#1) on frozen ice. NO3 pH<2. Client provided container. | | |

**Samples Received**

**Chemical**

| Sample Location | AWL ID | Collection Date/ Time | Analysis Date/Time | Analysis | Notes | Sample Location |
|---|---|---|---|---|---|---|
| Distribution | AWL-23-00910-001 | 4/3/2023 10:20 | 4/14/2023 12:30 | NO3+NO2 | | Distribution |

**Analytical Methods**

| Analyte | Method | Comments |
|---|---|---|
| NO3+NO2 | SM4500 NO3E | parent sample and duplicate were less than 5X the MRL; duplicate criteria not applicable |

| | |
|---|---|
| Log In Initials: | VJG 4/7/2023 |
| DQO Initials: | BFM 4/7/23 |

| | |
|---|---|
| **Cert Required** | AK DW |
| **CMDP #** | 338030 |

Comments: Standard / Routine

Alaska Water Laboratories
281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

| Definitions: | |
|---|---|
| DUP | Sample Duplicate |
| LCS/LCSD | Laboratory Control Sample/Laboratory Control Sample Duplicate |
| MRL | Method Reporting Limit |
| MB | Method Blank |
| MCL | Maximum Contaminant Level |
| MDL | Method Detection Limit |
| MS/MSD | Matrix Spike/Matrix Spike Duplicate |
| N/A | Not Applicable |
| TNTC | Count is Too Numerous To Count |
| <MDL | Result recovery is below the detectable laboratory limit, listed as the MDL |

| Data Qualifiers: | |
|---|---|
| B | The result of both the method blank and the target sample are above the MDL. |
| D | Sample analysis accomplished through dilution. |
| J | The reported result is an estimated value above the LOD but below the LOQ, or above the MDL but below the PQL. |
| U | Result is below the MDL, PQL, LOD, or LOQ |
| * | LCS/LCSD or Sample DUP fails all Duplicate criteria. |
| H | Holding time exceeded |
| E | Exceeds MCL |
| Q | One or more quality control criteria failed. |

| General Comments: | |
|---|---|
| 1.0) | Basis: “As Received” = analyzed as received from client; “Dry” = dried prior to being analyzed; “Dry Weight Corrected” = analyzed as received; result corrected for percent moisture. |

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**

| | | | |
|---|---|---|---|
| Client | ARS | | |
| Contact | Amanda Seba | | |
| Project | ARS3-23-00509-2-1 | **Collection** | |
| DW Y/N | Y | Date / time | 4/3/2023 10:20 |
| PWS# | AK2260286 | | |

| | | | | | |
|---|---|---|---|---|---|
| AWL # | AWL-23-00910 | | | | Routine |
| Sample Location | Distribution | | | FCID | TP001 |
| AWL ID/ Fraction | AWL-23-00910-001 | Matrix | DW | SPID | SPTP001 |

| Analysis | Results | Units | MRL | MDL | MCL | Flags | DF | Method | Analyst | Date/ Time | Batch ID |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate+Nitrite | 0.507 | mg/L | 0.168 | 0.056 | | D | 2.00 | SM4500 NO3E Nitrate+Nitrite | AKS | 4/14/2023 12:30 | 041423-01-NO3 |
| Comments | | | | | | | | | | | |

| | |
|---|---|
| Analyst Batching initials/date | AKS 4-17-23 |
| Analyst Reviewer initials/date | BFM 4/17/23 |

Alaska Water Laboratories

281 N Main St., STE # 101
Wasilla AK, 99654
907-373-6130

**Alaska Laboratory# AK01000**
**Analysis QC Results**

**Nitrate+Nitrite SM4500NO3E**
**Batch ID 041423-01-NO3**

**Method Blank**

| Analyte | MB | Flags | MDL | MRL | CRDL | Analyst | Date/Time |
|---|---|---|---|---|---|---|---|
| NO3+NO2 | -0.003 | | 0.028 | 0.084 | | AKS | 4/14/2023 12:30 |

**LCS**

| Analyte | LCS | Flags | Spike Amount | Percent Recovery | Limits | Analyst | Date/Time |
|---|---|---|---|---|---|---|---|
| NO3+NO2 | 0.540 | | 0.548 | 98.54 | 90-110 | AKS | 4/14/2023 12:30 |

**Sample Duplicate** **Parent ID** **AWL-23-00944-002**

| Analyte | Sample Duplicate | Flags | Parent Sample | RPD | Limits | Analyst | Date/Time |
|---|---|---|---|---|---|---|---|
| NO3+NO2 | -0.004 | | -0.003 | -28.57 | ≤20 | AKS | 4/14/2023 12:30 |

**Matrix Spike 1** **Parent ID** **AWL-23-00944-002**

| Analyte | Matrix Spike | Flags | Parent Sample | Spike Amount | Percent Recovery | Limits | Analyst | Date/Time |
|---|---|---|---|---|---|---|---|---|
| NO3+NO2 | 0.247 | | -0.003 | 0.274 | 91.20 | 80-120 | AKS | 4/14/2023 12:30 |

**Matrix Spike Dup** **Parent ID** **AWL-23-00944-002**

| Analyte | Matrix Spike | Flags | Parent Sample | Spike Amount | RPD | Limits | Percent Recovery | Limits | Analyst | Date/Time |
|---|---|---|---|---|---|---|---|---|---|---|
| NO3+NO2 | 0.242 | | -0.003 | 0.274 | 2.04 | ≤20 | 89.37 | 80-120 | AKS | 4/14/2023 12:30 |

**Matrix Spike 2** **Parent ID** **AWL-23-00961-003**

| Analyte | Matrix Spike | Flags | Parent Sample | Spike Amount | Percent Recovery | Limits | Analyst | Date/Time |
|---|---|---|---|---|---|---|---|---|
| NO3+NO2 | 0.261 | | -0.001 | 0.274 | 95.61 | 80-120 | AKS | 4/14/2023 12:30 |

**Matrix Spike Dup 2** **Parent ID** **AWL-23-00961-003**

| Analyte | Matrix Spike | Flags | Parent Sample | Spike Amount | RPD | Limits | Percent Recovery | Limits | Analyst | Date/Time |
|---|---|---|---|---|---|---|---|---|---|---|
| NO3+NO2 | 0.256 | | -0.001 | 0.274 | 1.93 | ≤20 | 93.78 | 80-120 | AKS | 4/14/2023 12:30 |

# AAA Chain of Custody

Alaska Water Laboratories

**AWL-23- 00910**

| **Lab Name & Address:** | **Testing Laboratory:** | **COC Number:** ARS3-23-00509-2-1 |
|---|---|---|
| AAA Anchorage, AK<br>907 E. Dowling Road Unit #24<br>Anchorage, AK 99518 | Alaska Water Labs (AWL)<br>281 N. Main Street<br>Suite 101<br>Wasilla, AK 99654 | **PO Number:**<br>**Required Certification:** Alaska DW<br>**Turnaround Time:** 10 Business Days |
| Report To: Tyler Wilhelm<br>Phone No: 907-258-2155<br>Email: | **Special Instructions:** | |

| Client Sample Identification (Name, Designation, Location, etc.) | Date Sampled | Time Sampled | Matrix | No. Of Containers | Comments | SM 4500-NO3E - Nitrate/Nitrite as N | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARS3-23-00509-001 | 04/03/23 | 10:20 | WD | 1 | | X | | | | | | | | | | |

9

Temp: 4.34 RT
pH: pHC2
Ice: Frozen Melted None
Containers Provided By: AWL Client

| Relinquished By: | Date | Time | Received By: | Date | Time | Additional Comments: |
|---|---|---|---|---|---|---|
| [signature] | 4-5-23 | 1300 | AKS | 4-5-23 | 17:05 | |
| **Relinquished By:** | **Date** | **Time** | **Received By:** | **Date** | **Time** | |
| | | | | | | |

# PWS Upload Information

**Lab Name & Address:**

Alaska Water Labs (AWL)
281 N. Main Street
Suite 101
Wasilla, AK 99654

**COC Number:** ARS3-23-00509-2-1

**PWS Number:** 260286

| Sample Name | Location | Purpose | Start Date | Sampled By | State Facility ID | State Point ID | Chlorine Residual |
|---|---|---|---|---|---|---|---|
| ARS3-23-00509-001 | Distribution | Routine | 4/3/2023 10:20 | AD | TP001 | SPTP001 | |
| Comments: | Distribution Building/Tanks | | | | | | |

# AAA Chain of Custody

**Custody form MUST be signed**
**Please provide as much information as possible**


Anchorage Laboratory
907 E. Dowling Road Unit #24
Anchorage, AK 99518
907-258-2155
907-258-6634 fax

AAA Corporate Office
2609 North River Road
Port Allen, LA 70767
225-381-2991 OR 225-346-6059
225-381-2996 fax


**Sampling Event ID:** 49294

**Client Name & Address:** City of St. Paul

Water Plant
BOX 901
Saint Paul Island, AK 99660

Contact Person: Paul Zavadil
Phone No: 907-600-4358
Fax No: 907-546-2453
Email: adirks@stpaulak.com,

**Public Water System ID:** 260286
**Project Name:** St. Paul PWS #260286 2023 CMP

**Turnaround Time (TAT) for Results**

☑ Standard ☐ Expedited (prior authorization required for < 10 days)
☐ Repeat — please specify due date below; additional charges may apply

Requested Date for Results:

Results to State: ☑ Yes ☐ No ☑ Routine ☐ Non-Routine

Special Instructions/Requirements: Please return your samples a soon as possible. JB

**Section To be Completed by AAA**

Quote Number: Q-01807
SDG:
Account #: Check Credit

Invoice Contact Name & Address & Phone:
Paul Zavadil

PO/Contract No:

Kit Preparation/Shipping Charge:

| ∞ Client Sample Identification (Name, Designation, Location, etc.) | Date Sampled | Time Sampled | Matrix | No. of Containers | 4500-NO3E (Aqueous) - Nitrate+Nitrite pres | 524.2 (Aqueous) - VOC AK DW | 524.2 (Aqueous) - AK DW VOC & TTHM Trip | | | | | | | | | | Field Filtered | State Pt Sampling ID | Facility ID | Comments/Repeat Sample Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Distribution Buildings/Tanks | 04/03/23 | 10:27 | WD | 1 | X | pH<2 | | | | | | | | | | | | SPTP 001 | TP001 | |
| Distribution Buildings/Tanks | 04/03/23 | 10:25 | FC | 4 | | X | 4/4 W/O HS | | | | | | | | | | | SPTP 001 | TP001 | |
| Trip Blank | | | FC | 2 | | | X | 2/2 W/ HS <6mm | | | | | | | | | | SPTP 001 | TP001 | |

| Relinquished By: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|
| Adrian Dirks | | | | | |
| Relinquished By: | Date | Time | Received By: | Date | Time |
| | | | | | |
| Relinquished By: | Date | Time | Received By: | Date | Time |
| | | | AAA | 4-4-23 | 9:00 |

**Section To Be Completed by AAA**

Condition of Custody Seal: (Intact) Broken Absent

Receiving Location: ANC

Temperature on Arrival: 5.3 °C

°C

Thermometer ID# 200 Measurement Method: (Temp Blank) Other

Shipping Method/Tracking Number: Courier

907 E. Dowling Road Unit #24 • Anchorage, AK 99518
907-258-2155 • FAX 907-258-6634

# ARS Aleut Analytical, LLC
# Analytical Reports

for

# City of St. Paul

# Sample Management Records

# AAA Chain of Custody

**Custody form MUST be signed**
**Please provide as much information as possible**


Anchorage Laboratory
907 E. Dowling Road Unit #24
Anchorage, AK 99518
907-258-2155
907-258-6634 fax

AAA Corporate Office
2609 North River Road
Port Allen, LA 70767
225-381-2991 OR 225-346-6059
225-381-2996 fax


**Sampling Event ID:** 49294

**Client Name & Address:** City of St. Paul

Water Plant
BOX 901
Saint Paul Island, AK 99660

Contact Person: Paul Zavadil
Phone No: 907-600-4358
Fax No: 907-546-2453
Email: adirks@stpaulak.com,

**Public Water System ID:** 260286

**Project Name:**
St. Paul PWS #260286 2023 CMP

**Turnaround Time (TAT) for Results**

☑ Standard ☐ Expedited (prior authorization required for < 10 days)
☐ Repeat — please specify due date below; additional charges may apply

Requested Date for Results:

Results to State: ☑ Yes ☐ No ☑ Routine ☐ Non-Routine

Special Instructions/Requirements: Please return your samples a soon as possible. JB

**Section To be Completed by AAA**

Quote Number: Q-01807
SDG:
Account #: Check: Credit:

Invoice Contact Name & Address & Phone:
Paul Zavadil

PO/Contract No:

Kit Preparation/Shipping Charge:

| Client Sample Identification (Name, Designation, Location, etc.) | Date Sampled | Time Sampled | Matrix | No. of Containers | 4500-NO3E (Aqueous) - Nitrate+Nitrite pres | 524.2 (Aqueous) - VOC AK DW | 524.2 (Aqueous) - AK DW VOC & TTHM Trip | | | | | | | | | | Field Filtered | State Pt Sampling ID | Facility ID | Comments/Repeat Sample Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Distribution Building/Tanks | 04/03/23 | 10:20 | WD | 1 | X | pH<2 | | | | | | | | | | | | SPTP 001 | TP001 | |
| Distribution Building/Tanks | 04/03/23 | 10:25 | FC | 4 | | X | 4/4 W/O HS | | | | | | | | | | | SPTP 001 | TP001 | |
| Trip Blank | | | FC | 2 | | | X | 2/2 W/ HS <6mm | | | | | | | | | | SPTP 001 | TP001 | |

| Relinquished By: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|
| Adrian Dirks | | | | | |
| Relinquished By: | Date | Time | Received By: | Date | Time |
| | | | | | |
| Relinquished By: | Date | Time | Received By: | Date | Time |
| | | | AAS | 4-4-23 | 9:00 |
| **Name of Sampler: (printed)** | Adrian Dirks | | | | |

**Section To Be Completed by AAA**

Condition of Custody Seal: (Intact) Broken Absent
Receiving Location: ANC
Temperature on Arrival: 5.3 °C
°C
Thermometer ID# 200 Measurement Method: (Temp Blank) Other
Shipping Method/Tracking Number: Courier