

## Cover Page

**Order ID :** Q1859

**Project ID :** Lincoln High School

**Client :** Kleinfelder

**Lab Sample Number**

Q1859-01  
Q1859-02  
Q1859-03

**Client Sample Number**

COMP-1  
COMP-2  
COMP-3

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : \_\_\_\_\_

Date: 4/26/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

|           |                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>J</b>  | Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).                                                                                                                                                                                  |
| <b>U</b>  | Indicates the analyte was analyzed for, but not detected.                                                                                                                                                                                                                                                                                                                     |
| <b>ND</b> | Indicates the analyte was analyzed for, but not detected                                                                                                                                                                                                                                                                                                                      |
| <b>E</b>  | Indicates the reported value is estimated because of the presence of interference                                                                                                                                                                                                                                                                                             |
| <b>M</b>  | Indicates Duplicate injection precision not met.                                                                                                                                                                                                                                                                                                                              |
| <b>N</b>  | Indicates the spiked sample recovery is not within control limits.                                                                                                                                                                                                                                                                                                            |
| <b>S</b>  | Indicates the reported value was determined by the Method of Standard Addition (MSA).                                                                                                                                                                                                                                                                                         |
| <b>*</b>  | Indicates that the duplicate analysis is not within control limits.                                                                                                                                                                                                                                                                                                           |
| <b>+</b>  | Indicates the correlation coefficient for the MSA is less than 0.995.                                                                                                                                                                                                                                                                                                         |
| <b>D</b>  | Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.                                                                                                                                                                                                                                       |
| <b>M</b>  | Method qualifiers<br>“P” for ICP instrument<br>“PM” for ICP when Microwave Digestion is used<br>“CV” for Manual Cold Vapor AA<br>“AV” for automated Cold Vapor AA<br>“CA” for MIDI-Distillation Spectrophotometric<br>“AS” for Semi -Automated Spectrophotometric<br>“C” for Manual Spectrophotometric<br>“T” for Titrimetric<br>“NR” for analyte not required to be analyzed |
| <b>OR</b> | Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.                                                                                                                                                                                                                                                              |
| <b>Q</b>  | Indicates the LCS did not meet the control limits requirements                                                                                                                                                                                                                                                                                                                |
| <b>H</b>  | Sample Analysis Out Of Hold Time                                                                                                                                                                                                                                                                                                                                              |

## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: Q1859

Completed

For thorough review, the report must have the following:

#### GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

#### COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

#### CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

#### ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: PRADIP PRAJAPATI

Date: 04/26/2025

## LAB CHRONICLE

|                 |              |                   |                      |
|-----------------|--------------|-------------------|----------------------|
| <b>OrderID:</b> | Q1859        | <b>OrderDate:</b> | 4/22/2025 2:55:00 PM |
| <b>Client:</b>  | Kleinfelder  | <b>Project:</b>   | Lincoln High School  |
| <b>Contact:</b> | Mark Warchol | <b>Location:</b>  | L41,VOA Ref. #2 Soil |

| LabID           | ClientID      | Matrix      | Test                | Method     | Sample Date               | Prep Date | Anal Date         | Received        |
|-----------------|---------------|-------------|---------------------|------------|---------------------------|-----------|-------------------|-----------------|
| <b>Q1859-01</b> | <b>COMP-1</b> | <b>SOIL</b> |                     |            | <b>04/18/25<br/>08:55</b> |           |                   | <b>04/22/25</b> |
|                 |               |             | Ammonia             | SM4500-NH3 |                           | 04/24/25  | 04/25/25<br>11:59 |                 |
|                 |               |             | Anions Group1       | 9056A      |                           |           | 04/23/25<br>12:53 |                 |
|                 |               |             | Hexavalent Chromium | 7196A      |                           | 04/23/25  | 04/23/25<br>13:54 |                 |
|                 |               |             | Trivalent Chromium  | 6010D      |                           |           | 04/23/25<br>17:39 |                 |
| <b>Q1859-02</b> | <b>COMP-2</b> | <b>SOIL</b> |                     |            | <b>04/18/25<br/>09:40</b> |           |                   | <b>04/22/25</b> |
|                 |               |             | Ammonia             | SM4500-NH3 |                           | 04/24/25  | 04/25/25<br>11:59 |                 |
|                 |               |             | Anions Group1       | 9056A      |                           |           | 04/23/25<br>13:15 |                 |
|                 |               |             | Hexavalent Chromium | 7196A      |                           | 04/23/25  | 04/23/25<br>13:55 |                 |
|                 |               |             | Trivalent Chromium  | 6010D      |                           |           | 04/23/25<br>17:43 |                 |
| <b>Q1859-03</b> | <b>COMP-3</b> | <b>SOIL</b> |                     |            | <b>04/18/25<br/>10:20</b> |           |                   | <b>04/22/25</b> |
|                 |               |             | Ammonia             | SM4500-NH3 |                           | 04/24/25  | 04/25/25<br>11:59 |                 |
|                 |               |             | Anions Group1       | 9056A      |                           |           | 04/23/25<br>13:36 |                 |
|                 |               |             | Hexavalent Chromium | 7196A      |                           | 04/23/25  | 04/23/25<br>13:56 |                 |
|                 |               |             | Trivalent Chromium  | 6010D      |                           |           | 04/23/25<br>17:47 |                 |



# SAMPLE DATA

## Report of Analysis

|                   |                     |                 |                |
|-------------------|---------------------|-----------------|----------------|
| Client:           | Kleinfelder         | Date Collected: | 04/18/25 08:55 |
| Project:          | Lincoln High School | Date Received:  | 04/22/25       |
| Client Sample ID: | COMP-1              | SDG No.:        | Q1859          |
| Lab Sample ID:    | Q1859-01            | Matrix:         | SOIL           |
|                   |                     | % Solid:        | 79.6           |

| Parameter           | Conc. | Qua. | DF | MDL   | LOQ / CRQL | Units(Dry Weight) | Prep Date      | Date Ana.      | Ana Met.                   |
|---------------------|-------|------|----|-------|------------|-------------------|----------------|----------------|----------------------------|
| Ammonia as N        | 2.70  | U    | 1  | 2.70  | 6.20       | mg/Kg             | 04/24/25 13:00 | 04/25/25 11:59 | SM 4500-NH3<br>B plus G-11 |
| Chloride            | 4.80  | J    | 1  | 4.40  | 15.0       | mg/Kg             |                | 04/23/25 12:53 | 9056A                      |
| Fluoride            | 4.70  | J    | 1  | 2.20  | 10.0       | mg/Kg             |                | 04/23/25 12:53 | 9056A                      |
| Sulfate             | 18.0  | J    | 1  | 11.0  | 75.2       | mg/Kg             |                | 04/23/25 12:53 | 9056A                      |
| Hexavalent Chromium | 0.087 | U    | 1  | 0.087 | 0.50       | mg/Kg             | 04/23/25 09:30 | 04/23/25 13:54 | 7196A                      |
| Trivalent Chromium  | 16.7  |      | 1  | 0.63  | 0.63       | mg/Kg             |                | 04/23/25 17:39 | 6010D                      |

Comments: \_\_\_\_\_

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

|                   |                     |                 |                |
|-------------------|---------------------|-----------------|----------------|
| Client:           | Kleinfelder         | Date Collected: | 04/18/25 09:40 |
| Project:          | Lincoln High School | Date Received:  | 04/22/25       |
| Client Sample ID: | COMP-2              | SDG No.:        | Q1859          |
| Lab Sample ID:    | Q1859-02            | Matrix:         | SOIL           |
|                   |                     | % Solid:        | 83.2           |

| Parameter           | Conc. | Qua. | DF | MDL   | LOQ / CRQL | Units(Dry Weight) | Prep Date      | Date Ana.      | Ana Met.                   |
|---------------------|-------|------|----|-------|------------|-------------------|----------------|----------------|----------------------------|
| Ammonia as N        | 26.7  |      | 1  | 2.50  | 5.80       | mg/Kg             | 04/24/25 13:00 | 04/25/25 11:59 | SM 4500-NH3<br>B plus G-11 |
| Chloride            | 88.7  |      | 1  | 4.20  | 14.4       | mg/Kg             |                | 04/23/25 13:15 | 9056A                      |
| Fluoride            | 7.90  | J    | 1  | 2.10  | 9.60       | mg/Kg             |                | 04/23/25 13:15 | 9056A                      |
| Sulfate             | 94.5  |      | 1  | 10.5  | 71.8       | mg/Kg             |                | 04/23/25 13:15 | 9056A                      |
| Hexavalent Chromium | 0.083 | U    | 1  | 0.083 | 0.47       | mg/Kg             | 04/23/25 09:30 | 04/23/25 13:55 | 7196A                      |
| Trivalent Chromium  | 16.9  |      | 1  | 0.60  | 0.60       | mg/Kg             |                | 04/23/25 17:43 | 6010D                      |

Comments: \_\_\_\_\_

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LOD = Limit of Detection

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H = Sample Analysis Out Of Hold Time

J = Estimated Value

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E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

## Report of Analysis

|                   |                     |                 |                |
|-------------------|---------------------|-----------------|----------------|
| Client:           | Kleinfelder         | Date Collected: | 04/18/25 10:20 |
| Project:          | Lincoln High School | Date Received:  | 04/22/25       |
| Client Sample ID: | COMP-3              | SDG No.:        | Q1859          |
| Lab Sample ID:    | Q1859-03            | Matrix:         | SOIL           |
|                   |                     | % Solid:        | 85.6           |

| Parameter           | Conc. | Qua. | DF | MDL   | LOQ / CRQL | Units(Dry Weight) | Prep Date      | Date Ana.      | Ana Met.                   |
|---------------------|-------|------|----|-------|------------|-------------------|----------------|----------------|----------------------------|
| Ammonia as N        | 2.50  | U    | 1  | 2.50  | 5.80       | mg/Kg             | 04/24/25 13:00 | 04/25/25 11:59 | SM 4500-NH3<br>B plus G-11 |
| Chloride            | 77.9  |      | 1  | 4.00  | 13.9       | mg/Kg             |                | 04/23/25 13:36 | 9056A                      |
| Fluoride            | 7.80  | J    | 1  | 2.00  | 9.30       | mg/Kg             |                | 04/23/25 13:36 | 9056A                      |
| Sulfate             | 73.1  |      | 1  | 10.1  | 69.4       | mg/Kg             |                | 04/23/25 13:36 | 9056A                      |
| Hexavalent Chromium | 0.081 | U    | 1  | 0.081 | 0.46       | mg/Kg             | 04/23/25 09:30 | 04/23/25 13:56 | 7196A                      |
| Trivalent Chromium  | 16.5  |      | 1  | 0.58  | 0.58       | mg/Kg             |                | 04/23/25 17:47 | 6010D                      |

Comments: \_\_\_\_\_

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MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

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H = Sample Analysis Out Of Hold Time

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# QC RESULT SUMMARY

## Initial and Continuing Calibration Verification

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**RunNo.:** LB135527

| Analyte                | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|------------------------|-------|--------|------------|------------|------------------------|---------------|
| <b>Sample ID: ICV1</b> |       |        |            |            |                        |               |
| Bromide                | mg/L  | 10.2   | 10         | 102        | 90-110                 | 04/22/2025    |
| Chloride               | mg/L  | 3.1    | 3          | 103        | 90-110                 | 04/22/2025    |
| Fluoride               | mg/L  | 2      | 2          | 100        | 90-110                 | 04/22/2025    |
| Nitrite                | mg/L  | 3.1    | 3          | 103        | 90-110                 | 04/22/2025    |
| Nitrate                | mg/L  | 2.6    | 2.5        | 104        | 90-110                 | 04/22/2025    |
| Sulfate                | mg/L  | 15.1   | 15         | 101        | 90-110                 | 04/22/2025    |
| Orthophosphate as P    | mg/L  | 5.2    | 5          | 104        | 90-110                 | 04/22/2025    |
| <b>Sample ID: CCV1</b> |       |        |            |            |                        |               |
| Bromide                | mg/L  | 10.7   | 10         | 107        | 90-110                 | 04/23/2025    |
| Chloride               | mg/L  | 3.2    | 3          | 107        | 90-110                 | 04/23/2025    |
| Fluoride               | mg/L  | 2.1    | 2          | 105        | 90-110                 | 04/23/2025    |
| Nitrite                | mg/L  | 3.2    | 3          | 107        | 90-110                 | 04/23/2025    |
| Nitrate                | mg/L  | 2.7    | 2.5        | 108        | 90-110                 | 04/23/2025    |
| Sulfate                | mg/L  | 15.6   | 15         | 104        | 90-110                 | 04/23/2025    |
| Orthophosphate as P    | mg/L  | 5.4    | 5          | 108        | 90-110                 | 04/23/2025    |
| <b>Sample ID: CCV2</b> |       |        |            |            |                        |               |
| Bromide                | mg/L  | 10.6   | 10         | 106        | 90-110                 | 04/23/2025    |
| Chloride               | mg/L  | 3.2    | 3          | 107        | 90-110                 | 04/23/2025    |
| Fluoride               | mg/L  | 2.1    | 2          | 105        | 90-110                 | 04/23/2025    |
| Nitrite                | mg/L  | 3.2    | 3          | 107        | 90-110                 | 04/23/2025    |
| Nitrate                | mg/L  | 2.7    | 2.5        | 108        | 90-110                 | 04/23/2025    |
| Sulfate                | mg/L  | 15.5   | 15         | 103        | 90-110                 | 04/23/2025    |
| Orthophosphate as P    | mg/L  | 5.3    | 5          | 106        | 90-110                 | 04/23/2025    |

## Initial and Continuing Calibration Verification

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**RunNo.:** LB135535

| Analyte                                       | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|-----------------------------------------------|-------|--------|------------|------------|------------------------|---------------|
| Sample ID: <b>ICV</b><br>Hexavalent Chromium  | mg/L  | 0.494  | 0.5        | 99         | 90-110                 | 04/23/2025    |
| Sample ID: <b>CCV1</b><br>Hexavalent Chromium | mg/L  | 0.501  | 0.5        | 100        | 90-110                 | 04/23/2025    |
| Sample ID: <b>CCV2</b><br>Hexavalent Chromium | mg/L  | 0.496  | 0.5        | 99         | 90-110                 | 04/23/2025    |
| Sample ID: <b>CCV3</b><br>Hexavalent Chromium | mg/L  | 0.502  | 0.5        | 100        | 90-110                 | 04/23/2025    |

## Initial and Continuing Calibration Verification

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**RunNo.:** LB135559

| Analyte                                | Units | Result | True Value | % Recovery | Acceptance Window (%R) | Analysis Date |
|----------------------------------------|-------|--------|------------|------------|------------------------|---------------|
| Sample ID: <b>ICV1</b><br>Ammonia as N | mg/L  | 0.94   | 1          | 94         | 90-110                 | 04/25/2025    |
| Sample ID: <b>CCV1</b><br>Ammonia as N | mg/L  | 0.95   | 1          | 95         | 90-110                 | 04/25/2025    |
| Sample ID: <b>CCV2</b><br>Ammonia as N | mg/L  | 0.99   | 1          | 99         | 90-110                 | 04/25/2025    |
| Sample ID: <b>CCV3</b><br>Ammonia as N | mg/L  | 0.93   | 1          | 93         | 90-110                 | 04/25/2025    |
| Sample ID: <b>CCV4</b><br>Ammonia as N | mg/L  | 0.99   | 1          | 99         | 90-110                 | 04/25/2025    |

## Initial and Continuing Calibration Verification

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**RunNo.:** LB135559

| Analyte | Units | Result | True Value | %<br>Recovery | Acceptance<br>Window (%R) | Analysis<br>Date |
|---------|-------|--------|------------|---------------|---------------------------|------------------|
|---------|-------|--------|------------|---------------|---------------------------|------------------|

## Initial and Continuing Calibration Blank Summary

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**RunNo.:** LB135527

| Analyte                | Units | Result   | Acceptance Limits | Conc Qual | MDL   | RDL | Analysis Date |
|------------------------|-------|----------|-------------------|-----------|-------|-----|---------------|
| <b>Sample ID: ICB1</b> |       |          |                   |           |       |     |               |
| Bromide                | mg/L  | < 1.0000 | 1.0000            | U         | 0.37  | 2   | 04/22/2025    |
| Chloride               | mg/L  | < 0.3000 | 0.3000            | U         | 0.19  | 0.6 | 04/22/2025    |
| Fluoride               | mg/L  | < 0.2000 | 0.2000            | U         | 0.11  | 0.4 | 04/22/2025    |
| Nitrite                | mg/L  | < 0.3000 | 0.3000            | U         | 0.074 | 0.6 | 04/22/2025    |
| Nitrate                | mg/L  | < 0.2500 | 0.2500            | U         | 0.095 | 0.5 | 04/22/2025    |
| Sulfate                | mg/L  | < 1.5000 | 1.5000            | U         | 0.46  | 3   | 04/22/2025    |
| Orthophosphate as P    | mg/L  | < 0.5000 | 0.5000            | U         | 0.34  | 1   | 04/22/2025    |
| <b>Sample ID: CCB1</b> |       |          |                   |           |       |     |               |
| Bromide                | mg/L  | < 1.0000 | 1.0000            | U         | 0.37  | 2   | 04/23/2025    |
| Chloride               | mg/L  | < 0.3000 | 0.3000            | U         | 0.19  | 0.6 | 04/23/2025    |
| Fluoride               | mg/L  | < 0.2000 | 0.2000            | U         | 0.11  | 0.4 | 04/23/2025    |
| Nitrite                | mg/L  | < 0.3000 | 0.3000            | U         | 0.074 | 0.6 | 04/23/2025    |
| Nitrate                | mg/L  | < 0.2500 | 0.2500            | U         | 0.095 | 0.5 | 04/23/2025    |
| Sulfate                | mg/L  | < 1.5000 | 1.5000            | U         | 0.46  | 3   | 04/23/2025    |
| Orthophosphate as P    | mg/L  | < 0.5000 | 0.5000            | U         | 0.34  | 1   | 04/23/2025    |
| <b>Sample ID: CCB2</b> |       |          |                   |           |       |     |               |
| Bromide                | mg/L  | < 1.0000 | 1.0000            | U         | 0.37  | 2   | 04/23/2025    |
| Chloride               | mg/L  | < 0.3000 | 0.3000            | U         | 0.19  | 0.6 | 04/23/2025    |
| Fluoride               | mg/L  | < 0.2000 | 0.2000            | U         | 0.11  | 0.4 | 04/23/2025    |
| Nitrite                | mg/L  | < 0.3000 | 0.3000            | U         | 0.074 | 0.6 | 04/23/2025    |
| Nitrate                | mg/L  | < 0.2500 | 0.2500            | U         | 0.095 | 0.5 | 04/23/2025    |
| Sulfate                | mg/L  | < 1.5000 | 1.5000            | U         | 0.46  | 3   | 04/23/2025    |
| Orthophosphate as P    | mg/L  | < 0.5000 | 0.5000            | U         | 0.34  | 1   | 04/23/2025    |

### Initial and Continuing Calibration Blank Summary

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**RunNo.:** LB135535

| Analyte                                       | Units | Result   | Acceptance Limits | Conc Qual | MDL    | RDL  | Analysis Date |
|-----------------------------------------------|-------|----------|-------------------|-----------|--------|------|---------------|
| Sample ID: <b>ICB</b><br>Hexavalent Chromium  | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 04/23/2025    |
| Sample ID: <b>CCB1</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 04/23/2025    |
| Sample ID: <b>CCB2</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 04/23/2025    |
| Sample ID: <b>CCB3</b><br>Hexavalent Chromium | mg/L  | < 0.0050 | 0.0050            | U         | 0.0029 | 0.01 | 04/23/2025    |

### Initial and Continuing Calibration Blank Summary

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**RunNo.:** LB135559

| Analyte                                | Units | Result   | Acceptance Limits | Conc Qual | MDL   | RDL | Analysis Date |
|----------------------------------------|-------|----------|-------------------|-----------|-------|-----|---------------|
| Sample ID: <b>ICB1</b><br>Ammonia as N | mg/L  | < 0.0500 | 0.0500            | U         | 0.030 | 0.1 | 04/25/2025    |
| Sample ID: <b>CCB1</b><br>Ammonia as N | mg/L  | < 0.0500 | 0.0500            | U         | 0.030 | 0.1 | 04/25/2025    |
| Sample ID: <b>CCB2</b><br>Ammonia as N | mg/L  | < 0.0500 | 0.0500            | U         | 0.030 | 0.1 | 04/25/2025    |
| Sample ID: <b>CCB3</b><br>Ammonia as N | mg/L  | < 0.0500 | 0.0500            | U         | 0.030 | 0.1 | 04/25/2025    |
| Sample ID: <b>CCB4</b><br>Ammonia as N | mg/L  | < 0.0500 | 0.0500            | U         | 0.030 | 0.1 | 04/25/2025    |

### Initial and Continuing Calibration Blank Summary

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**RunNo.:** LB135559

| Analyte | Units | Result | Acceptance<br>Limits | Conc<br>Qual | MDL | RDL | Analysis<br>Date |
|---------|-------|--------|----------------------|--------------|-----|-----|------------------|
|---------|-------|--------|----------------------|--------------|-----|-----|------------------|

## Preparation Blank Summary

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

| Analyte                       | Units | Result    | Acceptance<br>Limits | Conc<br>Qual | MDL  | RDL | Analysis<br>Date |
|-------------------------------|-------|-----------|----------------------|--------------|------|-----|------------------|
| <b>Sample ID: LB135527BLS</b> |       |           |                      |              |      |     |                  |
| Bromide                       | mg/Kg | < 20.0000 | 20.0000              | U            | 7    | 40  | 04/23/2025       |
| Chloride                      | mg/Kg | < 6.0000  | 6.0000               | U            | 3.5  | 12  | 04/23/2025       |
| Fluoride                      | mg/Kg | < 4.0000  | 4.0000               | U            | 1.8  | 8   | 04/23/2025       |
| Nitrite                       | mg/Kg | < 6.0000  | 6.0000               | U            | 1.5  | 12  | 04/23/2025       |
| Nitrate                       | mg/Kg | < 5.0000  | 5.0000               | U            | 1.8  | 10  | 04/23/2025       |
| Sulfate                       | mg/Kg | < 30.0000 | 30.0000              | U            | 8.8  | 60  | 04/23/2025       |
| Orthophosphate as P           | mg/Kg | < 10.0000 | 10.0000              | U            | 6.7  | 20  | 04/23/2025       |
| <b>Sample ID: PB167705BL</b>  |       |           |                      |              |      |     |                  |
| Hexavalent Chromium           | mg/Kg | < 0.2000  | 0.2000               | U            | 0.07 | 0.4 | 04/23/2025       |
| <b>Sample ID: PB167731BL</b>  |       |           |                      |              |      |     |                  |
| Ammonia as N                  | mg/Kg | < 2.5000  | 2.5000               | U            | 2.2  | 5   | 04/25/2025       |

### Matrix Spike Summary

|                   |                     |                                         |          |
|-------------------|---------------------|-----------------------------------------|----------|
| <b>Client:</b>    | Kleinfelder         | <b>SDG No.:</b>                         | Q1859    |
| <b>Project:</b>   | Lincoln High School | <b>Sample ID:</b>                       | Q1852-01 |
| <b>Client ID:</b> | ETGI-354MS          | <b>Percent Solids for Spike Sample:</b> | 92.5     |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Hexavalent Chromium | mg/Kg | 75-125                 | 1310             |                    | 0.074            | U                  | 1390           | 40                 | 94       |      | 04/23/2025       |

### Matrix Spike Summary

|                   |                     |                                         |          |
|-------------------|---------------------|-----------------------------------------|----------|
| <b>Client:</b>    | Kleinfelder         | <b>SDG No.:</b>                         | Q1859    |
| <b>Project:</b>   | Lincoln High School | <b>Sample ID:</b>                       | Q1852-01 |
| <b>Client ID:</b> | ETGI-354MS          | <b>Percent Solids for Spike Sample:</b> | 92.5     |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Hexavalent Chromium | mg/Kg | 85-115                 | 39.8             |                    | 0.074            | U                  | 43.2           | 2                  | 92       |      | 04/23/2025       |

## Matrix Spike Summary

|                   |                     |                                         |          |
|-------------------|---------------------|-----------------------------------------|----------|
| <b>Client:</b>    | Kleinfelder         | <b>SDG No.:</b>                         | Q1859    |
| <b>Project:</b>   | Lincoln High School | <b>Sample ID:</b>                       | Q1852-01 |
| <b>Client ID:</b> | ETGI-354MS          | <b>Percent Solids for Spike Sample:</b> | 92.5     |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Hexavalent Chromium | mg/Kg | 75-125                 | 32.9             |                    | 0.074            | U                  | 43.2           | 2                  | 76       |      | 04/23/2025       |

## Matrix Spike Summary

|                   |                     |                                         |          |
|-------------------|---------------------|-----------------------------------------|----------|
| <b>Client:</b>    | Kleinfelder         | <b>SDG No.:</b>                         | Q1859    |
| <b>Project:</b>   | Lincoln High School | <b>Sample ID:</b>                       | Q1858-01 |
| <b>Client ID:</b> | COMP-1MS            | <b>Percent Solids for Spike Sample:</b> | 83.9     |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Ammonia as N        | mg/Kg | 75-125                 | 54.5             |                    | 2.60             | U                  | 57.9           | 1                  | 94       |      | 04/25/2025       |
| Bromide             | mg/Kg | 80-120                 | 251              |                    | 8.30             | U                  | 240            | 1                  | 105      |      | 04/23/2025       |
| Chloride            | mg/Kg | 80-120                 | 106              |                    | 34.6             |                    | 71.1           | 1                  | 100      |      | 04/23/2025       |
| Fluoride            | mg/Kg | 80-120                 | 43.1             |                    | 2.10             | J                  | 47.4           | 1                  | 86       |      | 04/23/2025       |
| Nitrite             | mg/Kg | 80-120                 | 74.9             |                    | 1.80             | U                  | 71.1           | 1                  | 105      |      | 04/23/2025       |
| Nitrate             | mg/Kg | 80-120                 | 70.8             |                    | 10.9             | J                  | 59.2           | 1                  | 101      |      | 04/23/2025       |
| Sulfate             | mg/Kg | 80-120                 | 873              |                    | 553              |                    | 360            | 1                  | 89       |      | 04/23/2025       |
| Orthophosphate as P | mg/Kg | 80-120                 | 85.9             |                    | 7.90             | U                  | 120            | 1                  | 72       | *    | 04/23/2025       |

## Matrix Spike Summary

|                   |                     |                                         |          |
|-------------------|---------------------|-----------------------------------------|----------|
| <b>Client:</b>    | Kleinfelder         | <b>SDG No.:</b>                         | Q1859    |
| <b>Project:</b>   | Lincoln High School | <b>Sample ID:</b>                       | Q1858-01 |
| <b>Client ID:</b> | COMP-1MSD           | <b>Percent Solids for Spike Sample:</b> | 83.9     |

| Analyte             | Units | Acceptance<br>Limit %R | Spiked<br>Result | Conc.<br>Qualifier | Sample<br>Result | Conc.<br>Qualifier | Spike<br>Added | Dilution<br>Factor | %<br>Rec | Qual | Analysis<br>Date |
|---------------------|-------|------------------------|------------------|--------------------|------------------|--------------------|----------------|--------------------|----------|------|------------------|
| Ammonia as N        | mg/Kg | 75-125                 | 55.5             |                    | 2.60             | U                  | 58.4           | 1                  | 95       |      | 04/25/2025       |
| Bromide             | mg/Kg | 80-120                 | 252              |                    | 8.30             | U                  | 240            | 1                  | 105      |      | 04/23/2025       |
| Chloride            | mg/Kg | 80-120                 | 106              |                    | 34.6             |                    | 71.4           | 1                  | 100      |      | 04/23/2025       |
| Fluoride            | mg/Kg | 80-120                 | 42.5             |                    | 2.10             | J                  | 47.6           | 1                  | 85       |      | 04/23/2025       |
| Nitrite             | mg/Kg | 80-120                 | 75.2             |                    | 1.80             | U                  | 71.4           | 1                  | 105      |      | 04/23/2025       |
| Nitrate             | mg/Kg | 80-120                 | 70.9             |                    | 10.9             | J                  | 59.5           | 1                  | 101      |      | 04/23/2025       |
| Sulfate             | mg/Kg | 80-120                 | 877              |                    | 553              |                    | 360            | 1                  | 90       |      | 04/23/2025       |
| Orthophosphate as P | mg/Kg | 80-120                 | 86.9             |                    | 7.90             | U                  | 120            | 1                  | 72       | *    | 04/23/2025       |

### Duplicate Sample Summary

|                   |                     |                                         |          |
|-------------------|---------------------|-----------------------------------------|----------|
| <b>Client:</b>    | Kleinfelder         | <b>SDG No.:</b>                         | Q1859    |
| <b>Project:</b>   | Lincoln High School | <b>Sample ID:</b>                       | Q1852-01 |
| <b>Client ID:</b> | ETGI-354DUP         | <b>Percent Solids for Spike Sample:</b> | 92.5     |

| Analyte             | Units | Acceptance<br>Limit | Sample<br>Result | Conc.<br>Qualifier | Duplicate<br>Result | Conc.<br>Qualifier | Dilution<br>Factor | RPD/<br>AD | Qual | Analysis<br>Date |
|---------------------|-------|---------------------|------------------|--------------------|---------------------|--------------------|--------------------|------------|------|------------------|
| Hexavalent Chromium | mg/Kg | +/-20               | 0.074            | U                  | 0.074               | U                  | 1                  | 0          |      | 04/23/2025       |

### Duplicate Sample Summary

|                   |                     |                                         |          |
|-------------------|---------------------|-----------------------------------------|----------|
| <b>Client:</b>    | Kleinfelder         | <b>SDG No.:</b>                         | Q1859    |
| <b>Project:</b>   | Lincoln High School | <b>Sample ID:</b>                       | Q1858-01 |
| <b>Client ID:</b> | COMP-1DUP           | <b>Percent Solids for Spike Sample:</b> | 83.9     |

| Analyte      | Units | Acceptance<br>Limit | Sample<br>Result | Conc.<br>Qualifier | Duplicate<br>Result | Conc.<br>Qualifier | Dilution<br>Factor | RPD/<br>AD | Qual | Analysis<br>Date |
|--------------|-------|---------------------|------------------|--------------------|---------------------|--------------------|--------------------|------------|------|------------------|
| Ammonia as N | mg/Kg | +/-20               | 2.60             | U                  | 2.60                | U                  | 1                  | 0          |      | 04/25/2025       |

## Duplicate Sample Summary

|                                     |                                              |
|-------------------------------------|----------------------------------------------|
| <b>Client:</b> Kleinfelder          | <b>SDG No.:</b> Q1859                        |
| <b>Project:</b> Lincoln High School | <b>Sample ID:</b> Q1858-01                   |
| <b>Client ID:</b> COMP-1MSD         | <b>Percent Solids for Spike Sample:</b> 83.9 |

| Analyte             | Units | Acceptance Limit | Sample Result | Conc. Qualifier | Duplicate Result | Conc. Qualifier | Dilution Factor | RPD/AD | Qual | Analysis Date |
|---------------------|-------|------------------|---------------|-----------------|------------------|-----------------|-----------------|--------|------|---------------|
| Bromide             | mg/Kg | +/-15            | 251           |                 | 252              |                 | 1               | 0      |      | 04/23/2025    |
| Chloride            | mg/Kg | +/-15            | 106           |                 | 106              |                 | 1               | 0      |      | 04/23/2025    |
| Nitrate             | mg/Kg | +/-15            | 70.8          |                 | 70.9             |                 | 1               | 0      |      | 04/23/2025    |
| Nitrite             | mg/Kg | +/-15            | 74.9          |                 | 75.2             |                 | 1               | 0      |      | 04/23/2025    |
| Sulfate             | mg/Kg | +/-15            | 873           |                 | 877              |                 | 1               | 0      |      | 04/23/2025    |
| Fluoride            | mg/Kg | +/-15            | 43.1          |                 | 42.5             |                 | 1               | 1      |      | 04/23/2025    |
| Orthophosphate as P | mg/Kg | +/-15            | 85.9          |                 | 86.9             |                 | 1               | 1      |      | 04/23/2025    |
| Ammonia as N        | mg/Kg | +/-20            | 54.5          |                 | 55.5             |                 | 1               | 2      |      | 04/25/2025    |

### Laboratory Control Sample Summary

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**Run No.:** LB135527

| Analyte             | Units       | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|---------------------|-------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID           | LB135527BSS |            |        |                 |            |                 |                     |               |
| Bromide             | mg/Kg       | 200        | 212    |                 | 106        | 1               | 90-110              | 04/23/2025    |
| Chloride            | mg/Kg       | 60         | 64.0   |                 | 107        | 1               | 90-110              | 04/23/2025    |
| Fluoride            | mg/Kg       | 40         | 41.8   |                 | 104        | 1               | 90-110              | 04/23/2025    |
| Nitrite             | mg/Kg       | 60         | 63.2   |                 | 105        | 1               | 90-110              | 04/23/2025    |
| Nitrate             | mg/Kg       | 50         | 53.9   |                 | 108        | 1               | 90-110              | 04/23/2025    |
| Sulfate             | mg/Kg       | 300        | 309    |                 | 103        | 1               | 90-110              | 04/23/2025    |
| Orthophosphate as P | mg/Kg       | 100        | 106    |                 | 106        | 1               | 90-110              | 04/23/2025    |

### Laboratory Control Sample Summary

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**Run No.:** LB135535

| Analyte             | Units      | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|---------------------|------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID           | PB167705BS |            |        |                 |            |                 |                     |               |
| Hexavalent Chromium | mg/Kg      | 20         | 20.2   |                 | 101        | 1               | 84-110              | 04/23/2025    |

### Laboratory Control Sample Summary

**Client:** Kleinfelder

**SDG No.:** Q1859

**Project:** Lincoln High School

**Run No.:** LB135559

| Analyte      | Units      | True Value | Result | Conc. Qualifier | % Recovery | Dilution Factor | Acceptance Limit %R | Analysis Date |
|--------------|------------|------------|--------|-----------------|------------|-----------------|---------------------|---------------|
| Sample ID    | PB167731BS |            |        |                 |            |                 |                     |               |
| Ammonia as N | mg/Kg      | 50         | 47.1   |                 | 94         | 1               | 90-110              | 04/25/2025    |



# RAW DATA

| Instrument IC-1 |        |         |         | Analyst: NF |         | Method: 300.0 / 9056A |         | Initial wt/Fina Analyst |                 |                         |
|-----------------|--------|---------|---------|-------------|---------|-----------------------|---------|-------------------------|-----------------|-------------------------|
| Ident           | Con F- | Con CL- | Con NO2 | Con BR-     | Con NO3 | Con HPO4              | Con SO4 | Method name             | date time       | Initial wt/Fina Analyst |
| STD1            | 0.000  | 0.000   | 0.000   | 0.000       | 0.000   | 0.000                 | 0.000   | IC1-042225              | 4/22/2025 10:37 | 10 NF/IZ                |
| STD2            | 0.431  | 0.651   | 0.655   | 2.172       | 0.551   | 1.090                 | 3.366   | IC1-042225              | 4/22/2025 10:59 | 10 NF/IZ                |
| STD3            | 0.810  | 1.217   | 1.222   | 4.049       | 1.011   | 2.010                 | 6.091   | IC1-042225              | 4/22/2025 11:20 | 10 NF/IZ                |
| STD4            | 0.984  | 1.509   | 1.498   | 5.011       | 1.250   | 2.445                 | 7.369   | IC1-042225              | 4/22/2025 11:42 | 10 NF/IZ                |
| STD5            | 1.938  | 2.914   | 2.916   | 9.735       | 2.424   | 4.860                 | 14.361  | IC1-042225              | 4/22/2025 12:03 | 10 NF/IZ                |
| STD6            | 4.065  | 5.918   | 5.915   | 19.752      | 4.949   | 10.183                | 30.380  | IC1-042225              | 4/22/2025 12:25 | 10 NF/IZ                |
| STD7            | 4.972  | 7.591   | 7.594   | 25.280      | 6.316   | 12.412                | 36.933  | IC1-042225              | 4/22/2025 12:46 | 10 NF/IZ                |
| ICV             | 2.034  | 3.100   | 3.074   | 10.246      | 2.611   | 5.165                 | 15.120  | IC1-042225              | 4/22/2025 13:07 | 10 NF/IZ                |
| ICB             | 0.000  | 0.000   | 0.000   | 0.000       | 0.000   | 0.000                 | 0.000   | IC1-042225              | 4/22/2025 13:58 | 10 NF/IZ                |
| CCV             | 2.117  | 3.224   | 3.179   | 10.682      | 2.720   | 5.382                 | 15.636  | IC1-042225              | 4/23/2025 9:40  | 10 NF/IZ                |
| CCB             | 0.000  | 0.000   | 0.000   | 0.000       | 0.000   | 0.000                 | 0.000   | IC1-042225              | 4/23/2025 10:01 | 10 NF/IZ                |
| LB135527BLS     | 0.000  | 0.000   | 0.000   | 0.000       | 0.000   | 0.000                 | 0.000   | IC1-042225              | 4/23/2025 10:23 | 5.00g/100mL NF/IZ       |
| LB135527BSS     | 2.089  | 3.199   | 3.159   | 10.605      | 2.697   | 5.320                 | 15.470  | IC1-042225              | 4/23/2025 10:44 | 5.00g/100mL NF/IZ       |
| Q1858-01        | 0.088  | 1.462   | 0.000   | 0.000       | 0.460   | 0.000                 | 23.380  | IC1-042225              | 4/23/2025 11:06 | 5.04g/100mL NF/IZ       |
| Q1858-01MS      | 1.817  | 4.484   | 3.160   | 10.607      | 2.987   | 3.624                 | 36.826  | IC1-042225              | 4/23/2025 11:27 | 5.03g/100mL NF/IZ       |
| Q1858-01MSD     | 1.786  | 4.448   | 3.160   | 10.612      | 2.981   | 3.651                 | 36.872  | IC1-042225              | 4/23/2025 11:49 | 5.01g/100mL NF/IZ       |
| Q1858-02        | 0.096  | 2.003   | 0.000   | 0.000       | 0.830   | 0.000                 | 26.749  | IC1-042225              | 4/23/2025 12:10 | 5.02g/100mL NF/IZ       |
| Q1858-03        | 0.076  | 0.963   | 0.000   | 0.000       | 0.257   | 0.000                 | 16.616  | IC1-042225              | 4/23/2025 12:32 | 5.04g/100mL NF/IZ       |
| Q1859-01        | 0.187  | 0.193   | 0.000   | 0.000       | 0.139   | 0.000                 | 0.716   | IC1-042225              | 4/23/2025 12:53 | 5.01g/100mL NF/IZ       |
| Q1859-02        | 0.330  | 3.705   | 0.000   | 0.000       | 0.081   | 0.000                 | 3.948   | IC1-042225              | 4/23/2025 13:15 | 5.02g/100mL NF/IZ       |
| Q1859-03        | 0.338  | 3.367   | 0.000   | 0.000       | 0.092   | 0.000                 | 3.158   | IC1-042225              | 4/23/2025 13:36 | 5.05g/100mL NF/IZ       |
| CCV             | 2.083  | 3.198   | 3.168   | 10.605      | 2.699   | 5.348                 | 15.475  | IC1-042225              | 4/23/2025 13:58 | 10 NF/IZ                |
| CCB             | 0.000  | 0.000   | 0.000   | 0.000       | 0.000   | 0.000                 | 0.000   | IC1-042225              | 4/23/2025 14:20 | 10 NF/IZ                |

Clear table

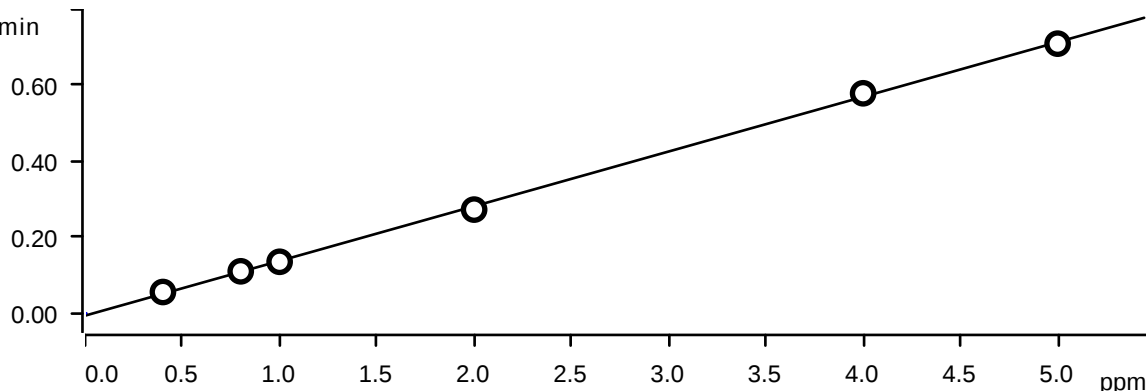
| Instrument ID: IC-2 Analyst : IZ Method: 300.0 / 9056A |                      |                       |                        |                        |                        |                         |                        |                   |                 |                         |         |
|--------------------------------------------------------|----------------------|-----------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|-------------------|-----------------|-------------------------|---------|
| ident                                                  | concentra<br>tion F- | concentratio<br>n CL- | concentratio<br>on NO2 | concentratio<br>on BR- | concentratio<br>on NO3 | concentratio<br>on HPO4 | concentratio<br>on SO4 | file name         | date time       | Initial<br>wt/<br>Final | Analyst |
| STD1                                                   | 0.0000               | 0.0000                | 0.0000                 | 0.0000                 | 0.0000                 | 0.0000                  | 0.0000                 | 0.0000 IC1-042225 | 4/22/2025 10:37 | 10                      | NF/IZ   |
| STD2                                                   | 0.4310               | 0.6510                | 0.6550                 | 2.1720                 | 0.5510                 | 1.0900                  | 3.3660                 | IC1-042225        | 4/22/2025 10:59 | 10                      | NF/IZ   |
| STD3                                                   | 0.8100               | 1.2170                | 1.2220                 | 4.0490                 | 1.0110                 | 2.0100                  | 6.0910                 | IC1-042225        | 4/22/2025 11:20 | 10                      | NF/IZ   |
| STD4                                                   | 0.9840               | 1.5090                | 1.4980                 | 5.0110                 | 1.2500                 | 2.4450                  | 7.3690                 | IC1-042225        | 4/22/2025 11:42 | 10                      | NF/IZ   |
| STD5                                                   | 1.9380               | 2.9140                | 2.9160                 | 9.7350                 | 2.4240                 | 4.8600                  | 14.3610                | IC1-042225        | 4/22/2025 12:03 | 10                      | NF/IZ   |
| STD6                                                   | 4.0650               | 5.9180                | 5.9150                 | 19.7520                | 4.9490                 | 10.1830                 | 30.3800                | IC1-042225        | 4/22/2025 12:25 | 10                      | NF/IZ   |
| STD7                                                   | 4.9720               | 7.5910                | 7.5940                 | 25.2800                | 6.3160                 | 12.4120                 | 36.9330                | IC1-042225        | 4/22/2025 12:46 | 10                      | NF/IZ   |

| ident | True<br>Value F- | True Value<br>CL- | True Value<br>NO2 | True Value<br>BR- | True Value<br>NO3 | True Value<br>HPO4 | True Value<br>SO4 |
|-------|------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| STD1  | 0.0000           | 0.0000            | 0.0000            | 0.0000            | 0.0000            | 0.0000             | 0.0000            |
| STD2  | 0.4000           | 0.6000            | 0.6000            | 2.0000            | 0.5000            | 1.0000             | 3.0000            |
| STD3  | 0.8000           | 1.2000            | 1.2000            | 4.0000            | 1.0000            | 2.0000             | 6.0000            |
| STD4  | 1.0000           | 1.5000            | 1.5000            | 5.0000            | 1.2500            | 2.5000             | 7.5000            |
| STD5  | 2.0000           | 3.0000            | 3.0000            | 10.0000           | 2.5000            | 5.0000             | 15.0000           |
| STD6  | 4.0000           | 6.0000            | 6.0000            | 20.0000           | 5.0000            | 10.0000            | 30.0000           |
| STD7  | 5.0000           | 7.5000            | 7.5000            | 25.0000           | 6.2500            | 12.5000            | 37.0000           |

| ident | Relative<br>Error F- | Relative<br>Error CL- | Relative<br>Error NO2 | Relative<br>Error BR- | Relative<br>Error NO3 | Relative<br>Error HPO4 | Relative<br>Error SO4 |
|-------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|
| STD1  |                      |                       |                       |                       |                       |                        |                       |
| STD2  | 7.7500               | 8.5000                | 9.1667                | 8.6000                | 10.2000               | 9.0000                 | 12.2000               |
| STD3  | 1.2500               | 1.4167                | 1.8333                | 1.2250                | 1.1000                | 0.5000                 | 1.5167                |
| STD4  | -1.6000              | 0.6000                | -0.1333               | 0.2200                | 0.0000                | -2.2000                | -1.7467               |
| STD5  | -3.1000              | -2.8667               | -2.8000               | -2.6500               | -3.0400               | -2.8000                | -4.2600               |
| STD6  | 1.6250               | -1.3667               | -1.4167               | -1.2400               | -1.0200               | 1.8300                 | 1.2667                |
| STD7  | -0.5600              | 1.2133                | 1.2533                | 1.1200                | 1.0560                | -0.7040                | -0.1811               |

# Fluoride (Anions)

( $\mu\text{S}/\text{cm}$ ) x min



Function: . . . . .  $A = - 6.13443\text{E-}3 + 0.0144025 \times Q$

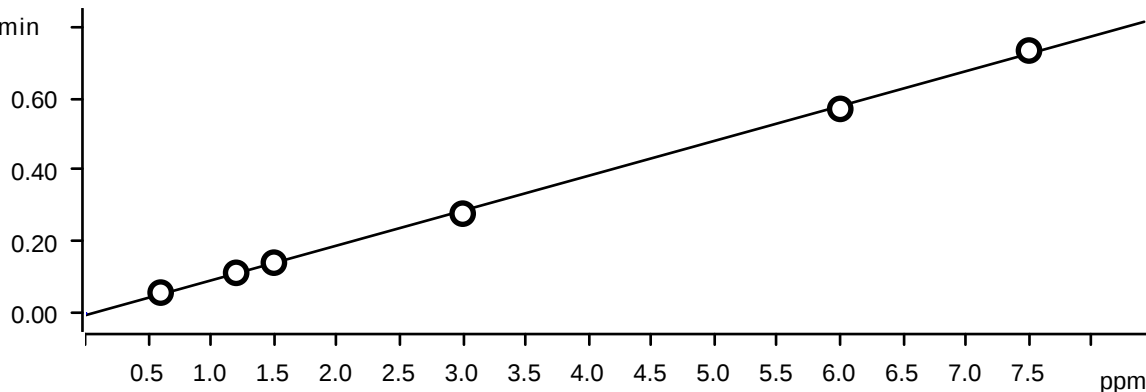
Relative standard deviation . . . . . 2.337762 %

Correlation coefficient . . . . . 0.999714

| Sample type | Index | Conc. | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|-------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000 | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2025-04-22 10:37:58 UTC-4 | used |
| Standard 2  | 1     | 0.400 | 10.0   | 1.0      | 1.0           | 0.056 | STD2  | 2025-04-22 10:59:20 UTC-4 | used |
| Standard 3  | 1     | 0.800 | 10.0   | 1.0      | 1.0           | 0.110 | STD3  | 2025-04-22 11:20:44 UTC-4 | used |
| Standard 4  | 1     | 1.000 | 10.0   | 1.0      | 1.0           | 0.136 | STD4  | 2025-04-22 11:42:09 UTC-4 | used |
| Standard 5  | 1     | 2.000 | 10.0   | 1.0      | 1.0           | 0.273 | STD5  | 2025-04-22 12:03:34 UTC-4 | used |
| Standard 6  | 1     | 4.000 | 10.0   | 1.0      | 1.0           | 0.579 | STD6  | 2025-04-22 12:25:01 UTC-4 | used |
| Standard 7  | 1     | 5.000 | 10.0   | 1.0      | 1.0           | 0.710 | STD7  | 2025-04-22 12:46:28 UTC-4 | used |

# Chloride (Anions)

( $\mu\text{S}/\text{cm}$ ) x min



Function: . . . . .  $A = - 5.12446\text{E-}3 + 9.72422\text{E-}3 \times Q$

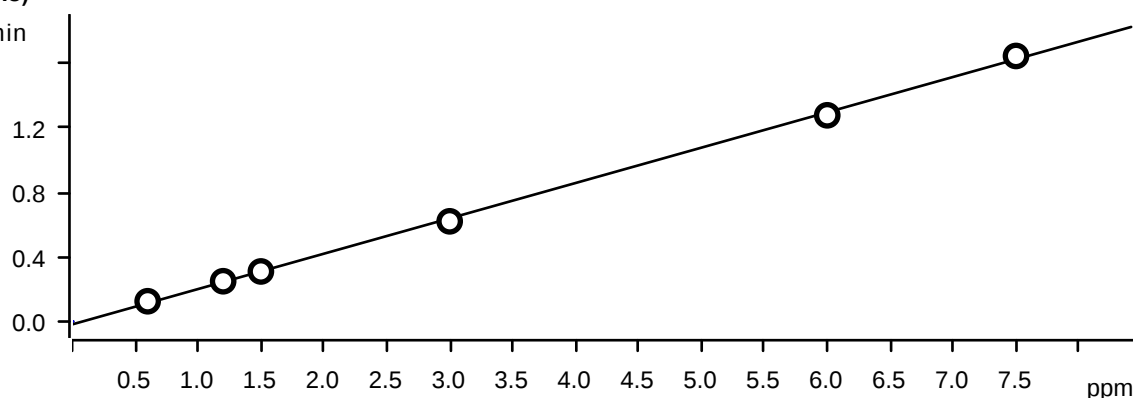
Relative standard deviation . . . . . 2.452549 %

Correlation coefficient . . . . . 0.999683

| Sample type | Index | Conc. | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|-------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000 | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2025-04-22 10:37:58 UTC-4 | used |
| Standard 2  | 1     | 0.600 | 10.0   | 1.0      | 1.0           | 0.058 | STD2  | 2025-04-22 10:59:20 UTC-4 | used |
| Standard 3  | 1     | 1.200 | 10.0   | 1.0      | 1.0           | 0.113 | STD3  | 2025-04-22 11:20:44 UTC-4 | used |
| Standard 4  | 1     | 1.500 | 10.0   | 1.0      | 1.0           | 0.142 | STD4  | 2025-04-22 11:42:09 UTC-4 | used |
| Standard 5  | 1     | 3.000 | 10.0   | 1.0      | 1.0           | 0.278 | STD5  | 2025-04-22 12:03:34 UTC-4 | used |
| Standard 6  | 1     | 6.000 | 10.0   | 1.0      | 1.0           | 0.570 | STD6  | 2025-04-22 12:25:01 UTC-4 | used |
| Standard 7  | 1     | 7.500 | 10.0   | 1.0      | 1.0           | 0.733 | STD7  | 2025-04-22 12:46:28 UTC-4 | used |

**Nitrite (Anions)**

(μS/cm) x min

Function: . . . . .  $A = -0.0187238 + 0.0219021 \times Q$ 

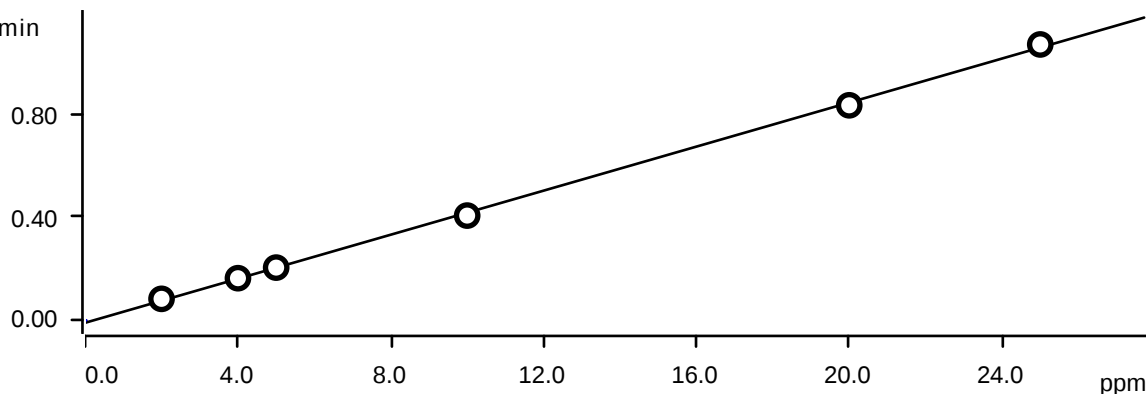
Relative standard deviation . . . . . 2.531721 %

Correlation coefficient . . . . . 0.999669

| Sample type | Index | Conc. | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|-------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000 | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2025-04-22 10:37:58 UTC-4 | used |
| Standard 2  | 1     | 0.600 | 10.0   | 1.0      | 1.0           | 0.125 | STD2  | 2025-04-22 10:59:20 UTC-4 | used |
| Standard 3  | 1     | 1.200 | 10.0   | 1.0      | 1.0           | 0.249 | STD3  | 2025-04-22 11:20:44 UTC-4 | used |
| Standard 4  | 1     | 1.500 | 10.0   | 1.0      | 1.0           | 0.309 | STD4  | 2025-04-22 11:42:09 UTC-4 | used |
| Standard 5  | 1     | 3.000 | 10.0   | 1.0      | 1.0           | 0.620 | STD5  | 2025-04-22 12:03:34 UTC-4 | used |
| Standard 6  | 1     | 6.000 | 10.0   | 1.0      | 1.0           | 1.277 | STD6  | 2025-04-22 12:25:01 UTC-4 | used |
| Standard 7  | 1     | 7.500 | 10.0   | 1.0      | 1.0           | 1.644 | STD7  | 2025-04-22 12:46:28 UTC-4 | used |

# Bromide (Anions)

( $\mu\text{S}/\text{cm}$ ) x min



Function:  $A = -9.36439E-3 + 4.26318E-3 \times Q$

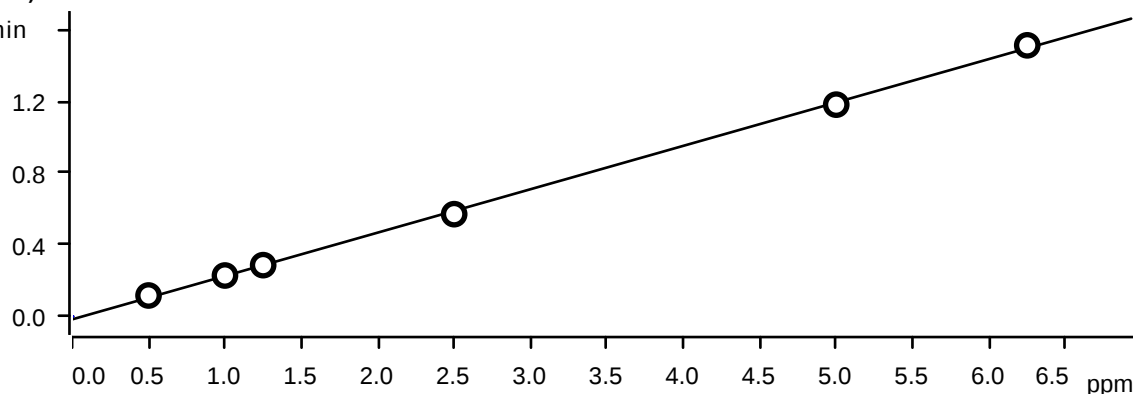
Relative standard deviation: 2.280508 %

Correlation coefficient: 0.999728

| Sample type | Index | Conc.  | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|--------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000  | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2025-04-22 10:37:58 UTC-4 | used |
| Standard 2  | 1     | 2.000  | 10.0   | 1.0      | 1.0           | 0.083 | STD2  | 2025-04-22 10:59:20 UTC-4 | used |
| Standard 3  | 1     | 4.000  | 10.0   | 1.0      | 1.0           | 0.163 | STD3  | 2025-04-22 11:20:44 UTC-4 | used |
| Standard 4  | 1     | 5.000  | 10.0   | 1.0      | 1.0           | 0.204 | STD4  | 2025-04-22 11:42:09 UTC-4 | used |
| Standard 5  | 1     | 10.000 | 10.0   | 1.0      | 1.0           | 0.406 | STD5  | 2025-04-22 12:03:34 UTC-4 | used |
| Standard 6  | 1     | 20.000 | 10.0   | 1.0      | 1.0           | 0.833 | STD6  | 2025-04-22 12:25:01 UTC-4 | used |
| Standard 7  | 1     | 25.000 | 10.0   | 1.0      | 1.0           | 1.068 | STD7  | 2025-04-22 12:46:28 UTC-4 | used |

# Nitrate (Anions)

( $\mu\text{S}/\text{cm}$ ) x min

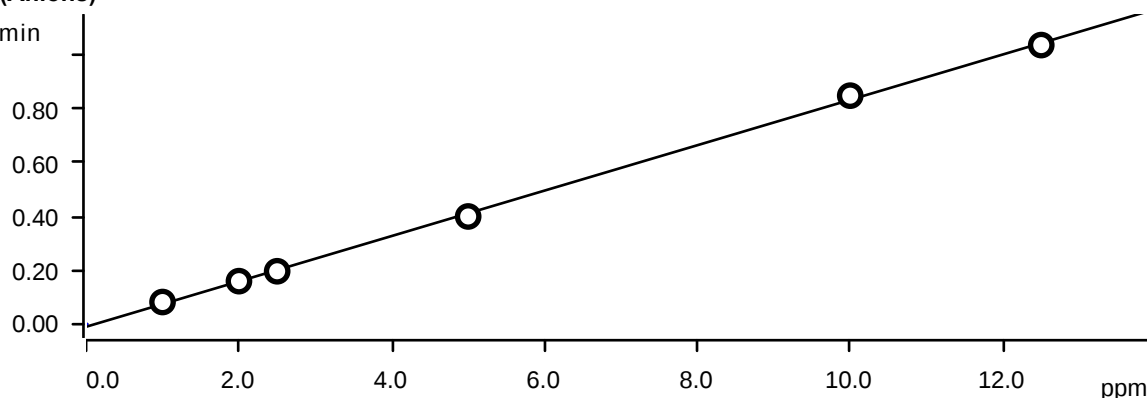


Function:  $A = -0.0163950 + 0.0241967 \times Q$

Relative standard deviation: 2.309177 %

Correlation coefficient . . . . . 0.999724

| Sample type | Index | Conc. | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|-------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000 | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2025-04-22 10:37:58 UTC-4 | used |
| Standard 2  | 1     | 0.500 | 10.0   | 1.0      | 1.0           | 0.117 | STD2  | 2025-04-22 10:59:20 UTC-4 | used |
| Standard 3  | 1     | 1.000 | 10.0   | 1.0      | 1.0           | 0.228 | STD3  | 2025-04-22 11:20:44 UTC-4 | used |
| Standard 4  | 1     | 1.250 | 10.0   | 1.0      | 1.0           | 0.286 | STD4  | 2025-04-22 11:42:09 UTC-4 | used |
| Standard 5  | 1     | 2.500 | 10.0   | 1.0      | 1.0           | 0.570 | STD5  | 2025-04-22 12:03:34 UTC-4 | used |
| Standard 6  | 1     | 5.000 | 10.0   | 1.0      | 1.0           | 1.181 | STD6  | 2025-04-22 12:25:01 UTC-4 | used |
| Standard 7  | 1     | 6.250 | 10.0   | 1.0      | 1.0           | 1.512 | STD7  | 2025-04-22 12:46:28 UTC-4 | used |

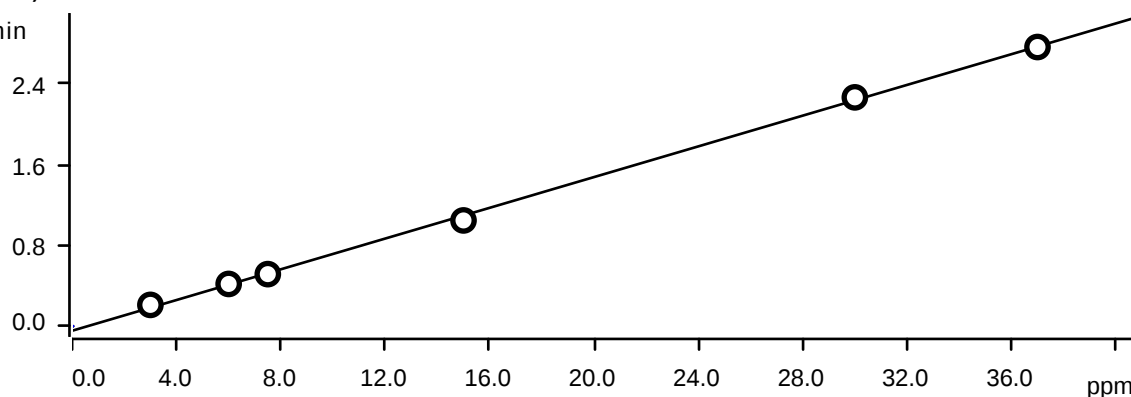
**Phosphate (Anions)** $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: . . . . .  $A = -9.96993E-3 + 8.43655E-3 \times Q$ 

Relative standard deviation . . . . . 2.492252 %

Correlation coefficient . . . . . 0.999676

| Sample type | Index | Conc.  | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|--------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000  | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2025-04-22 10:37:58 UTC-4 | used |
| Standard 2  | 1     | 1.000  | 10.0   | 1.0      | 1.0           | 0.082 | STD2  | 2025-04-22 10:59:20 UTC-4 | used |
| Standard 3  | 1     | 2.000  | 10.0   | 1.0      | 1.0           | 0.160 | STD3  | 2025-04-22 11:20:44 UTC-4 | used |
| Standard 4  | 1     | 2.500  | 10.0   | 1.0      | 1.0           | 0.196 | STD4  | 2025-04-22 11:42:09 UTC-4 | used |
| Standard 5  | 1     | 5.000  | 10.0   | 1.0      | 1.0           | 0.400 | STD5  | 2025-04-22 12:03:34 UTC-4 | used |
| Standard 6  | 1     | 10.000 | 10.0   | 1.0      | 1.0           | 0.849 | STD6  | 2025-04-22 12:25:01 UTC-4 | used |
| Standard 7  | 1     | 12.500 | 10.0   | 1.0      | 1.0           | 1.037 | STD7  | 2025-04-22 12:46:28 UTC-4 | used |

## Sulfate (Anions)

 $(\mu\text{S}/\text{cm}) \times \text{min}$ Function: . . . . .  $A = -0.0453007 + 7.61540E-3 \times Q$ 

Relative standard deviation . . . . . 2.675209 %

Correlation coefficient . . . . . 0.999634

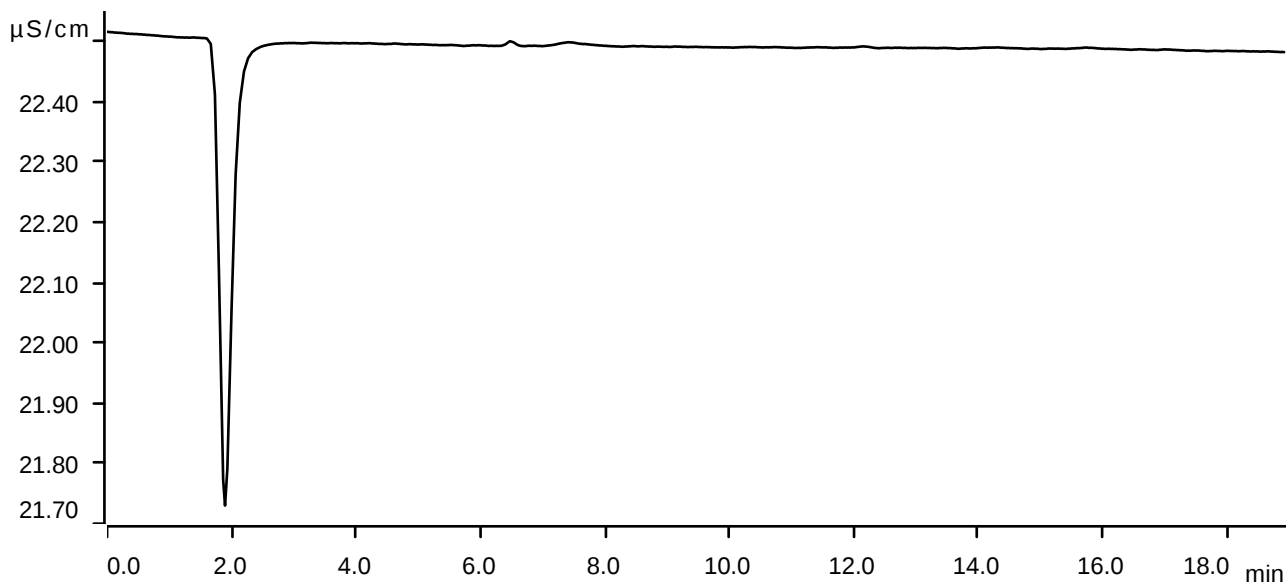
| Sample type | Index | Conc.  | Volume | Dilution | Sample amount | Area  | Ident | Date                      | Used |
|-------------|-------|--------|--------|----------|---------------|-------|-------|---------------------------|------|
| Standard 1  | 1     | 0.000  | 10.0   | 1.0      | 1.0           | n. d. | STD1  | 2025-04-22 10:37:58 UTC-4 | used |
| Standard 2  | 1     | 3.000  | 10.0   | 1.0      | 1.0           | 0.211 | STD2  | 2025-04-22 10:59:20 UTC-4 | used |
| Standard 3  | 1     | 6.000  | 10.0   | 1.0      | 1.0           | 0.419 | STD3  | 2025-04-22 11:20:44 UTC-4 | used |
| Standard 4  | 1     | 7.500  | 10.0   | 1.0      | 1.0           | 0.516 | STD4  | 2025-04-22 11:42:09 UTC-4 | used |
| Standard 5  | 1     | 15.000 | 10.0   | 1.0      | 1.0           | 1.048 | STD5  | 2025-04-22 12:03:34 UTC-4 | used |
| Standard 6  | 1     | 30.000 | 10.0   | 1.0      | 1.0           | 2.268 | STD6  | 2025-04-22 12:25:01 UTC-4 | used |
| Standard 7  | 1     | 37.000 | 10.0   | 1.0      | 1.0           | 2.767 | STD7  | 2025-04-22 12:46:28 UTC-4 | used |

**Sample data**

Ident . . . . . STD1  
Sample type . . . . . Standard 1  
Determination start . . . . . 2025-04-22 10:37:58 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

**Anions**

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.32 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

**Anions**

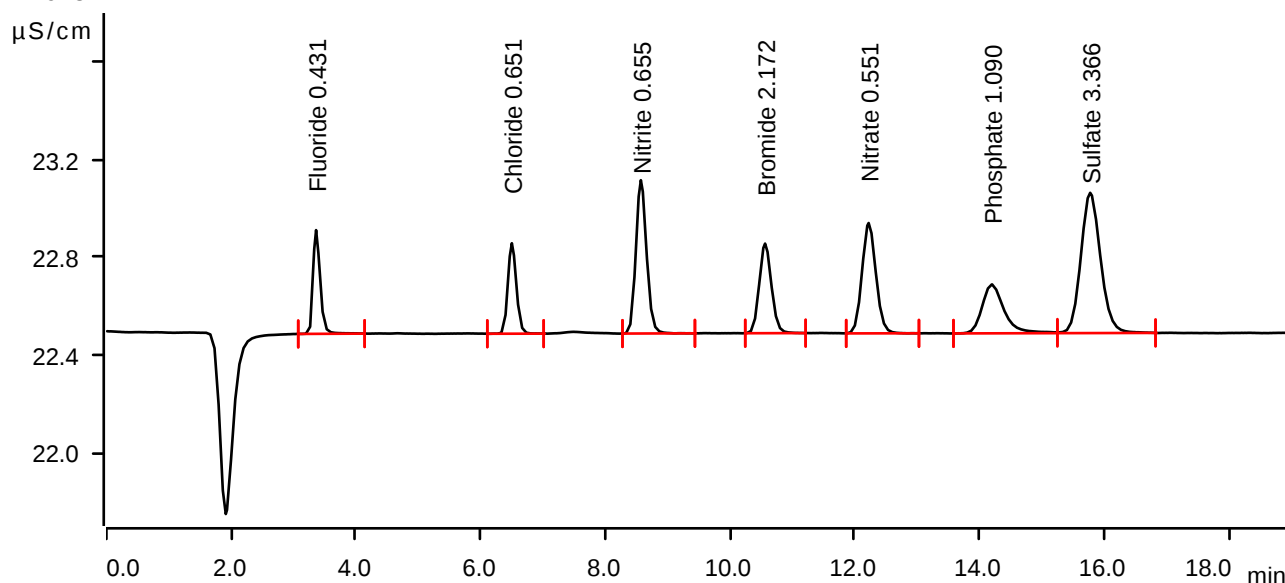
## Sample data

Ident . . . . . STD2  
Sample type . . . . . Standard 2  
Determination start . . . . . 2025-04-22 10:59:20 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.26 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.363                 | 0.0560                | 0.425           | 0.431                | Fluoride       |
| 2           | 6.502                 | 0.0581                | 0.371           | 0.651                | Chloride       |
| 3           | 8.570                 | 0.1247                | 0.628           | 0.655                | Nitrite        |
| 4           | 10.562                | 0.0832                | 0.367           | 2.172                | Bromide        |
| 5           | 12.222                | 0.1168                | 0.452           | 0.551                | Nitrate        |
| 6           | 14.197                | 0.0820                | 0.201           | 1.090                | Phosphate      |
| 7           | 15.773                | 0.2111                | 0.575           | 3.366                | Sulfate        |

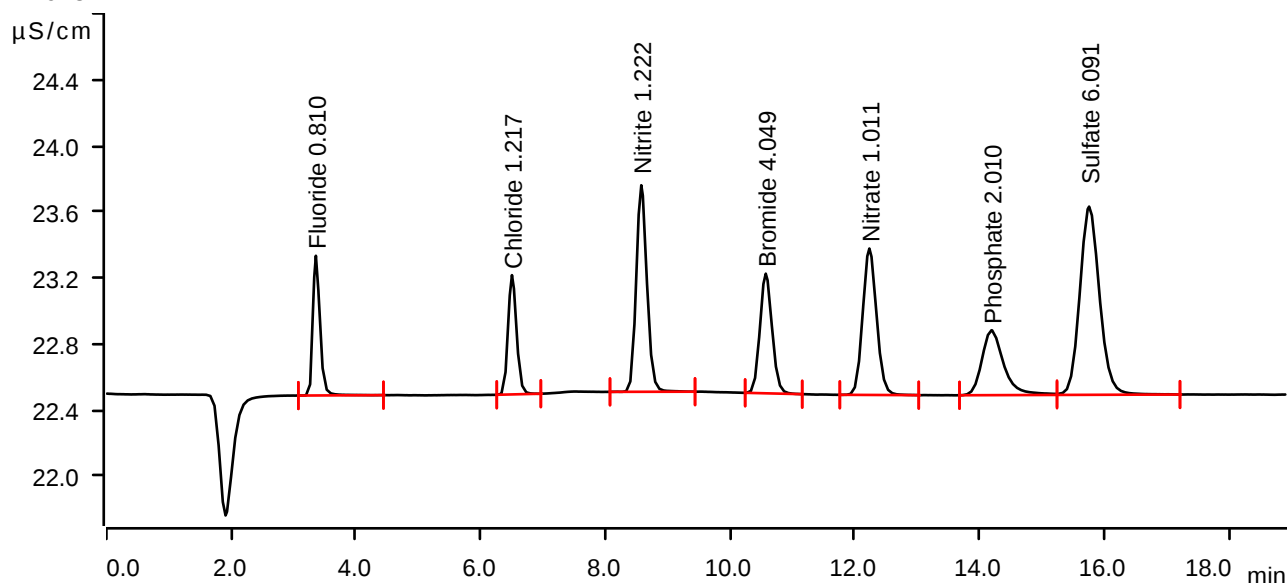
## Sample data

Ident . . . . . STD3  
Sample type . . . . . Standard 3  
Determination start . . . . . 2025-04-22 11:20:44 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.43 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.360                 | 0.1105                | 0.845           | 0.810                | Fluoride       |
| 2           | 6.503                 | 0.1132                | 0.722           | 1.217                | Chloride       |
| 3           | 8.577                 | 0.2488                | 1.250           | 1.222                | Nitrite        |
| 4           | 10.572                | 0.1632                | 0.724           | 4.049                | Bromide        |
| 5           | 12.233                | 0.2282                | 0.886           | 1.011                | Nitrate        |
| 6           | 14.192                | 0.1596                | 0.393           | 2.010                | Phosphate      |
| 7           | 15.757                | 0.4185                | 1.139           | 6.091                | Sulfate        |

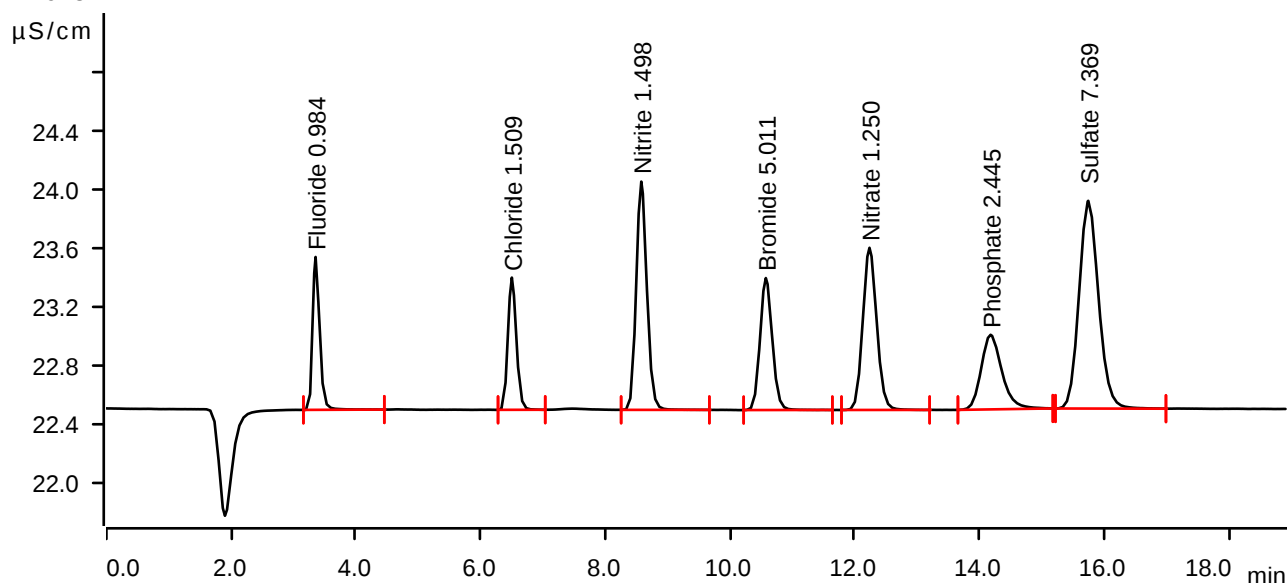
## Sample data

Ident . . . . . STD4  
Sample type . . . . . Standard 4  
Determination start . . . . . 2025-04-22 11:42:09 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.43 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.355                 | 0.1356                | 1.044           | 0.984                | Fluoride       |
| 2           | 6.502                 | 0.1416                | 0.903           | 1.509                | Chloride       |
| 3           | 8.577                 | 0.3094                | 1.559           | 1.498                | Nitrite        |
| 4           | 10.573                | 0.2043                | 0.902           | 5.011                | Bromide        |
| 5           | 12.235                | 0.2860                | 1.108           | 1.250                | Nitrate        |
| 6           | 14.177                | 0.1963                | 0.510           | 2.445                | Phosphate      |
| 7           | 15.743                | 0.5159                | 1.419           | 7.369                | Sulfate        |

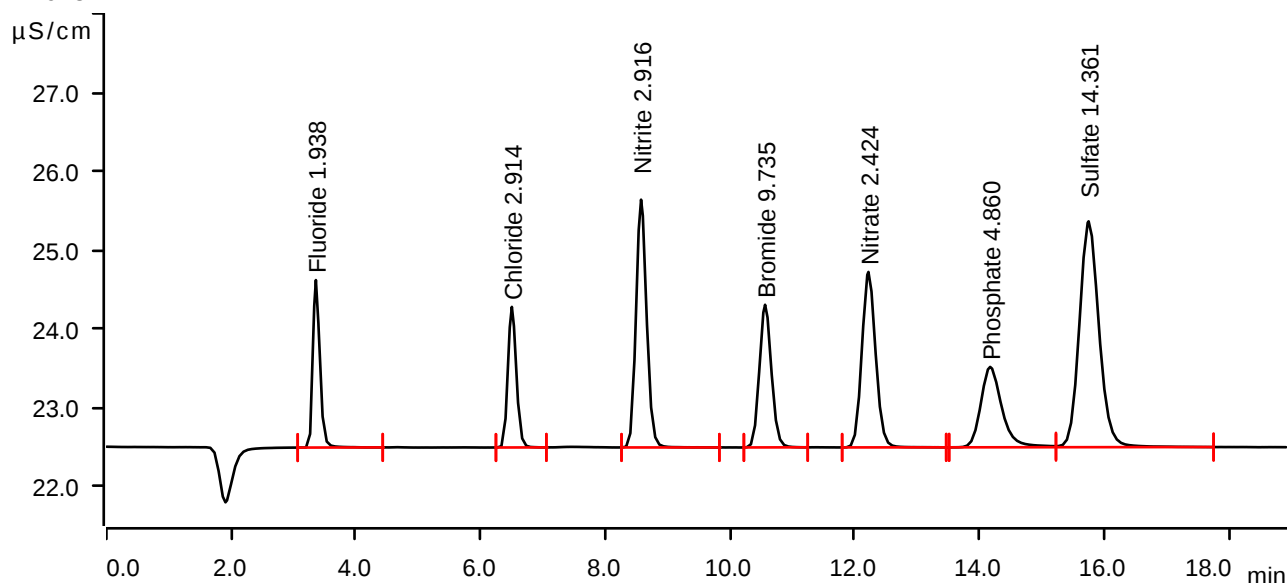
## Sample data

Ident . . . . . STD5  
Sample type . . . . . Standard 5  
Determination start . . . . . 2025-04-22 12:03:34 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.49 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.360                 | 0.2730                | 2.125           | 1.938                | Fluoride       |
| 2           | 6.502                 | 0.2783                | 1.784           | 2.914                | Chloride       |
| 3           | 8.573                 | 0.6200                | 3.144           | 2.916                | Nitrite        |
| 4           | 10.562                | 0.4057                | 1.810           | 9.735                | Bromide        |
| 5           | 12.218                | 0.5702                | 2.226           | 2.424                | Nitrate        |
| 6           | 14.170                | 0.4000                | 1.020           | 4.860                | Phosphate      |
| 7           | 15.748                | 1.0484                | 2.866           | 14.361               | Sulfate        |

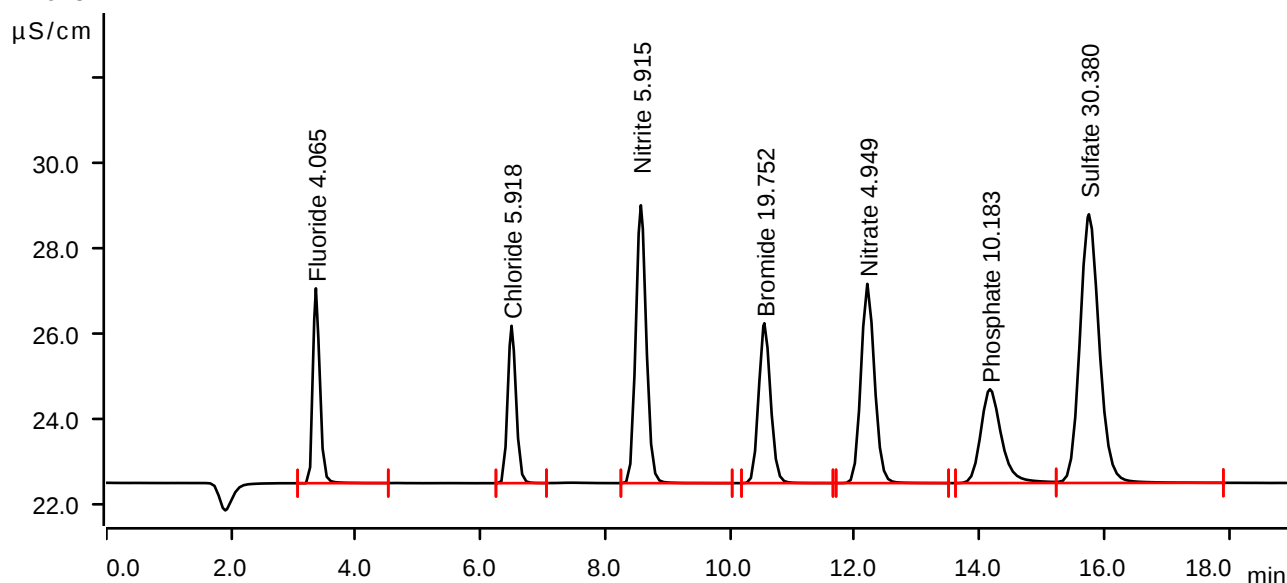
## Sample data

Ident . . . . . STD6  
Sample type . . . . . Standard 6  
Determination start . . . . . 2025-04-22 12:25:01 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.49 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.360                 | 0.5793                | 4.564           | 4.065                | Fluoride       |
| 2           | 6.497                 | 0.5704                | 3.686           | 5.918                | Chloride       |
| 3           | 8.570                 | 1.2768                | 6.510           | 5.915                | Nitrite        |
| 4           | 10.550                | 0.8327                | 3.746           | 19.752               | Bromide        |
| 5           | 12.202                | 1.1810                | 4.667           | 4.949                | Nitrate        |
| 6           | 14.167                | 0.8491                | 2.199           | 10.183               | Phosphate      |
| 7           | 15.753                | 2.2683                | 6.294           | 30.380               | Sulfate        |

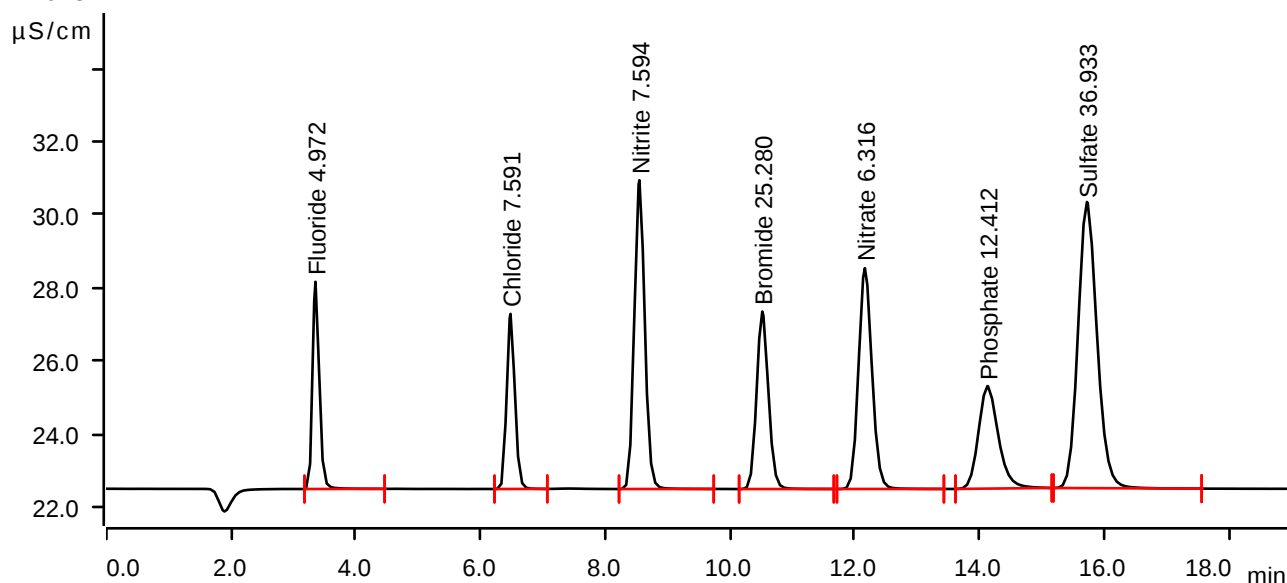
## Sample data

Ident . . . . . STD7  
Sample type . . . . . Standard 7  
Determination start . . . . . 2025-04-22 12:46:28 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.43 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.353                 | 0.7100                | 5.662           | 4.972                | Fluoride       |
| 2           | 6.480                 | 0.7331                | 4.785           | 7.591                | Chloride       |
| 3           | 8.547                 | 1.6445                | 8.440           | 7.594                | Nitrite        |
| 4           | 10.517                | 1.0684                | 4.850           | 25.280               | Bromide        |
| 5           | 12.162                | 1.5118                | 6.035           | 6.316                | Nitrate        |
| 6           | 14.127                | 1.0372                | 2.803           | 12.412               | Phosphate      |
| 7           | 15.722                | 2.7673                | 7.822           | 36.933               | Sulfate        |

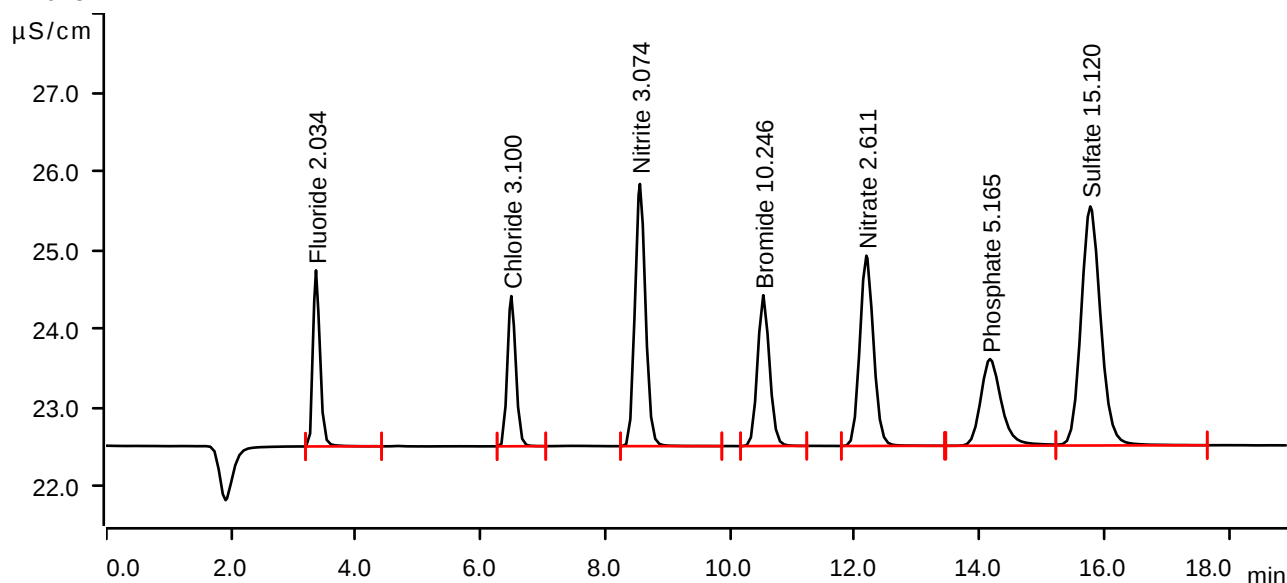
## Sample data

Ident . . . . . ICV  
Sample type . . . . . Check standard 1  
Determination start . . . . . 2025-04-22 13:07:56 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.60 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.362                 | 0.2867                | 2.234           | 2.034                | Fluoride       |
| 2           | 6.493                 | 0.2963                | 1.906           | 3.100                | Chloride       |
| 3           | 8.555                 | 0.6546                | 3.328           | 3.074                | Nitrite        |
| 4           | 10.532                | 0.4274                | 1.914           | 10.246               | Bromide        |
| 5           | 12.185                | 0.6154                | 2.414           | 2.611                | Nitrate        |
| 6           | 14.168                | 0.4257                | 1.100           | 5.165                | Phosphate      |
| 7           | 15.775                | 1.1062                | 3.034           | 15.120               | Sulfate        |

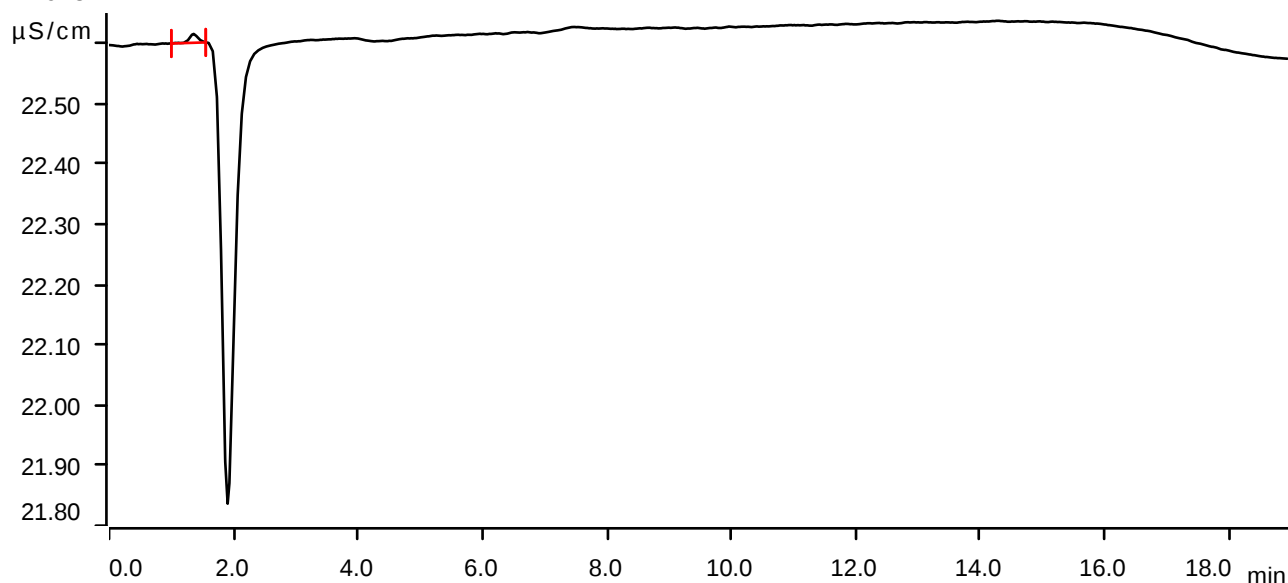
## Sample data

Ident . . . . . ICB  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-22 13:58:31 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.32 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time | Area          | Height | Concentration | Component name |
|-------------|----------------|---------------|--------|---------------|----------------|
|             | min            | (µS/cm) x min | µS/cm  | ppm           |                |
| 1           | 1.362          | 0.0024        | 0.015  | invalid       |                |

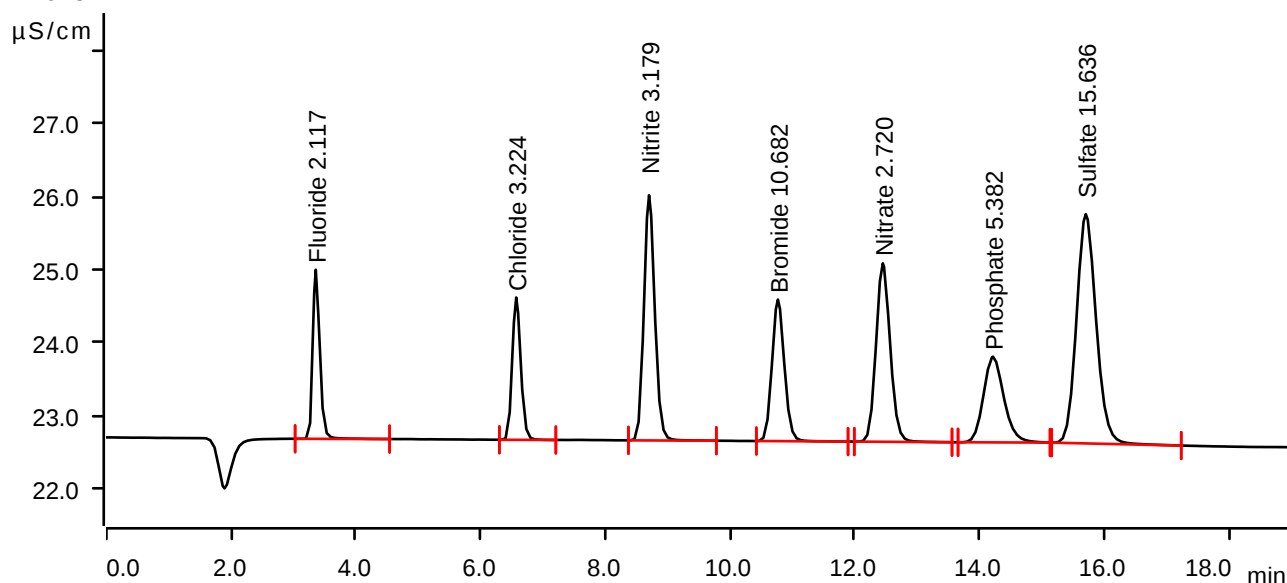
## Sample data

Ident . . . . . CCV  
Sample type . . . . . Check standard 1  
Determination start . . . . . 2025-04-23 09:40:00 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.99 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



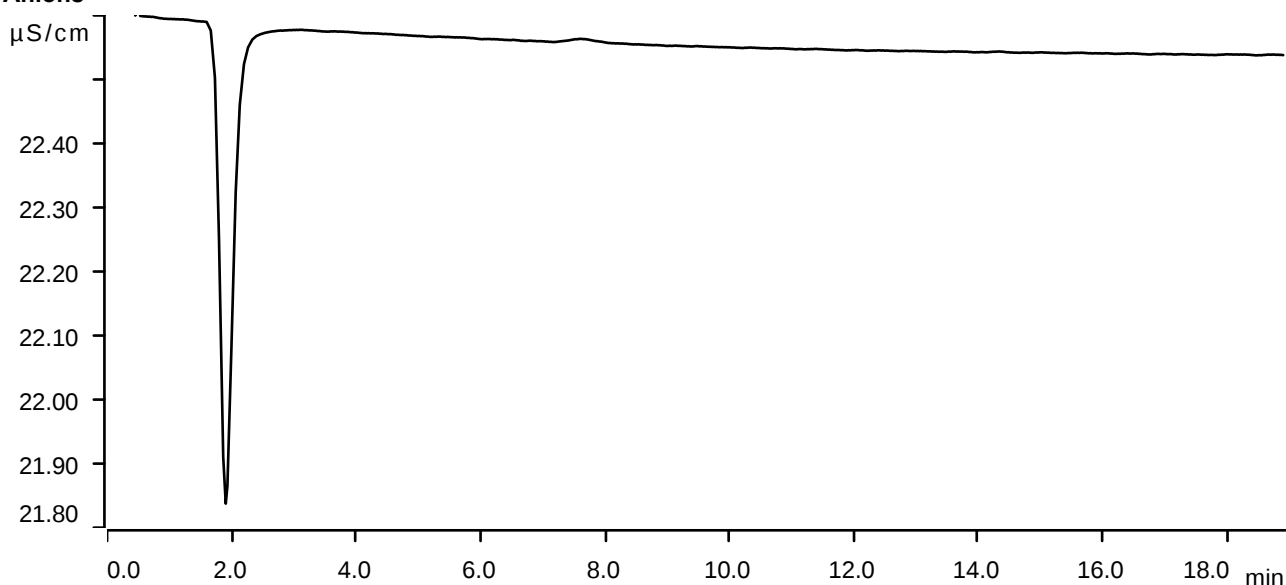
| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.358                 | 0.2987                | 2.311           | 2.117                | Fluoride       |
| 2           | 6.572                 | 0.3084                | 1.945           | 3.224                | Chloride       |
| 3           | 8.702                 | 0.6776                | 3.351           | 3.179                | Nitrite        |
| 4           | 10.767                | 0.4460                | 1.934           | 10.682               | Bromide        |
| 5           | 12.448                | 0.6417                | 2.439           | 2.720                | Nitrate        |
| 6           | 14.215                | 0.4441                | 1.172           | 5.382                | Phosphate      |
| 7           | 15.703                | 1.1455                | 3.133           | 15.636               | Sulfate        |

**Sample data**

Ident . . . . . CCB  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 10:01:31 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

**Anions**

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.88 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

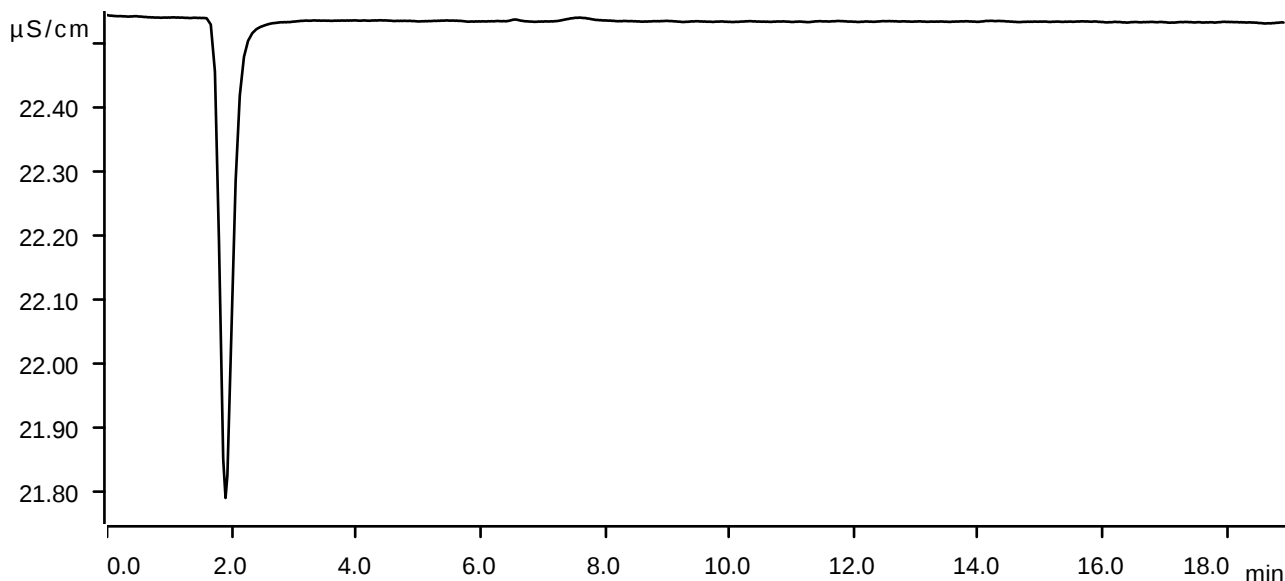
**Anions**

**Sample data**

Ident . . . . . LB135527BLS  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 10:23:01 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

**Anions**

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.82 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

**Anions**

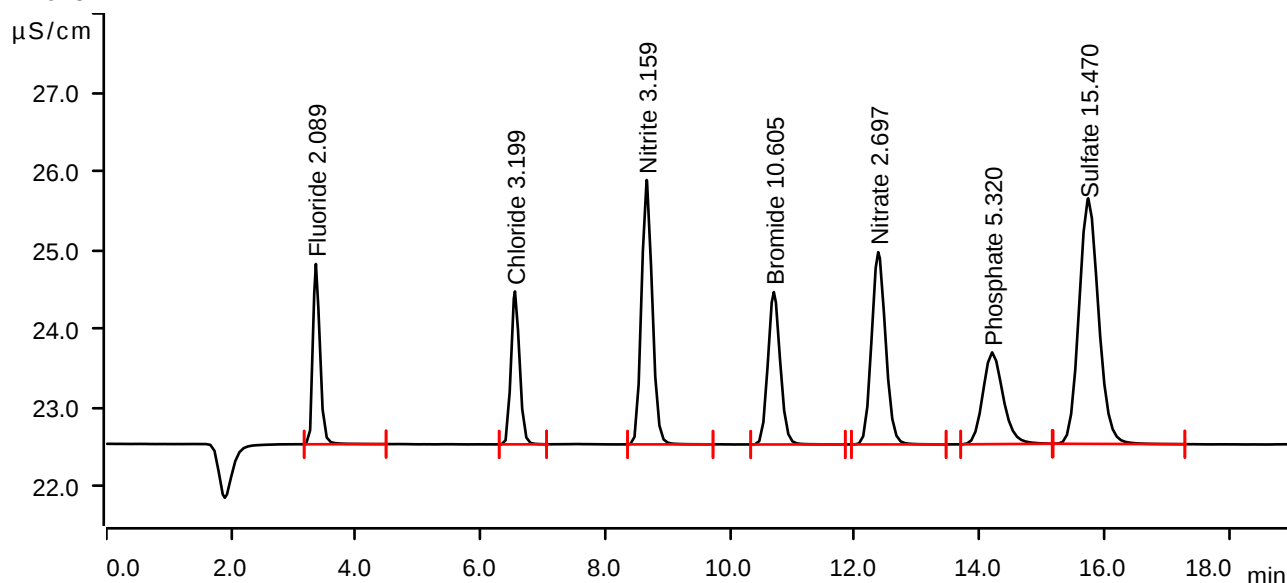
## Sample data

Ident . . . . . LB135527BSS  
Sample type . . . . . Check standard 1  
Determination start . . . . . 2025-04-23 10:44:32 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.71 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.360                 | 0.2947                | 2.287           | 2.089                | Fluoride       |
| 2           | 6.552                 | 0.3059                | 1.941           | 3.199                | Chloride       |
| 3           | 8.662                 | 0.6732                | 3.355           | 3.159                | Nitrite        |
| 4           | 10.702                | 0.4428                | 1.934           | 10.605               | Bromide        |
| 5           | 12.375                | 0.6362                | 2.440           | 2.697                | Nitrate        |
| 6           | 14.203                | 0.4389                | 1.163           | 5.320                | Phosphate      |
| 7           | 15.743                | 1.1328                | 3.115           | 15.470               | Sulfate        |

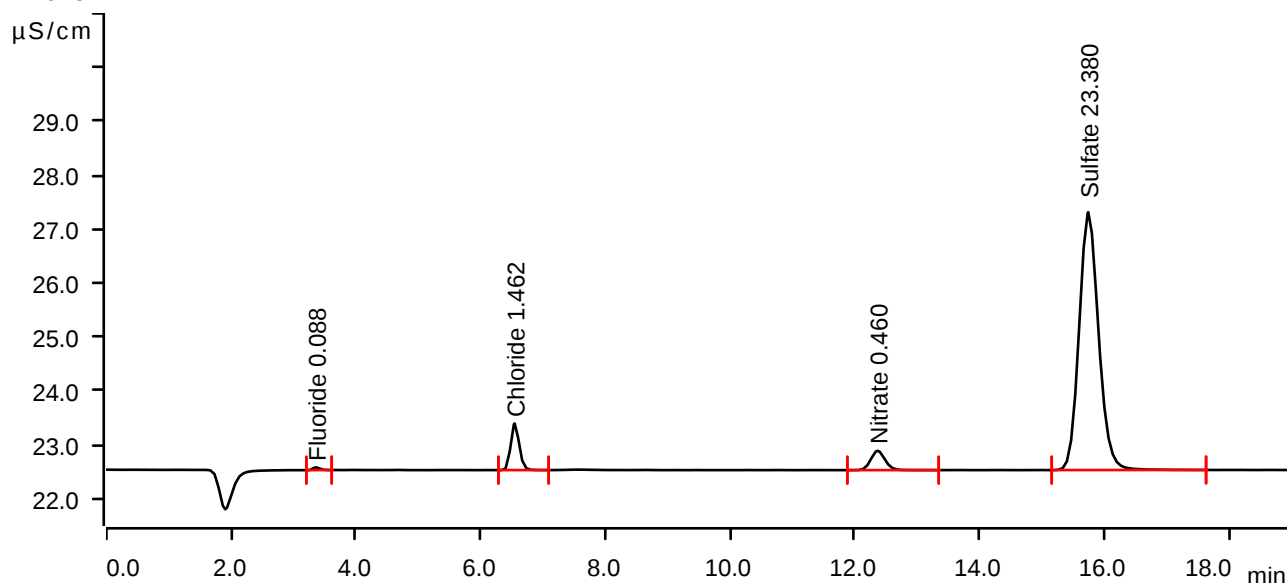
## Sample data

Ident . . . . . Q1858-01  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 11:06:04 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.71 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.362                 | 0.0065                | 0.051           | 0.088                | Fluoride       |
| 2           | 6.547                 | 0.1371                | 0.865           | 1.462                | Chloride       |
| 3           | 12.365                | 0.0949                | 0.360           | 0.460                | Nitrate        |
| 4           | 15.743                | 1.7352                | 4.782           | 23.380               | Sulfate        |

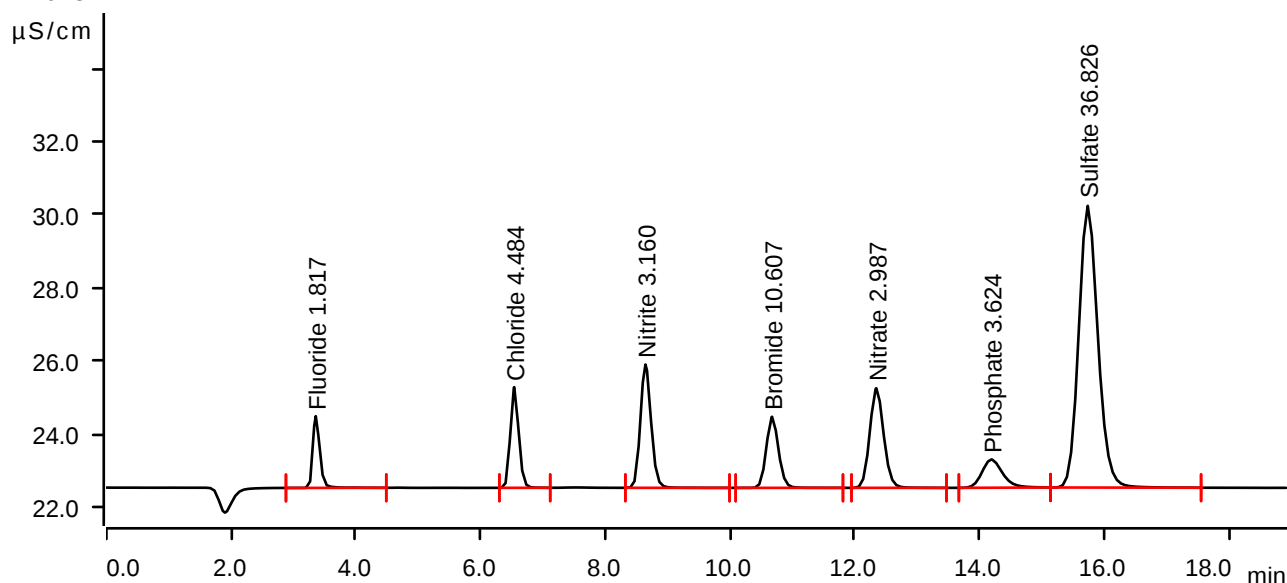
## Sample data

Ident . . . . . Q1858-01MS  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 11:27:37 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.82 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.358                 | 0.2556                | 1.960           | 1.817                | Fluoride       |
| 2           | 6.540                 | 0.4310                | 2.752           | 4.484                | Chloride       |
| 3           | 8.643                 | 0.6735                | 3.370           | 3.160                | Nitrite        |
| 4           | 10.673                | 0.4428                | 1.944           | 10.607               | Bromide        |
| 5           | 12.345                | 0.7065                | 2.723           | 2.987                | Nitrate        |
| 6           | 14.190                | 0.2957                | 0.772           | 3.624                | Phosphate      |
| 7           | 15.733                | 2.7592                | 7.699           | 36.826               | Sulfate        |

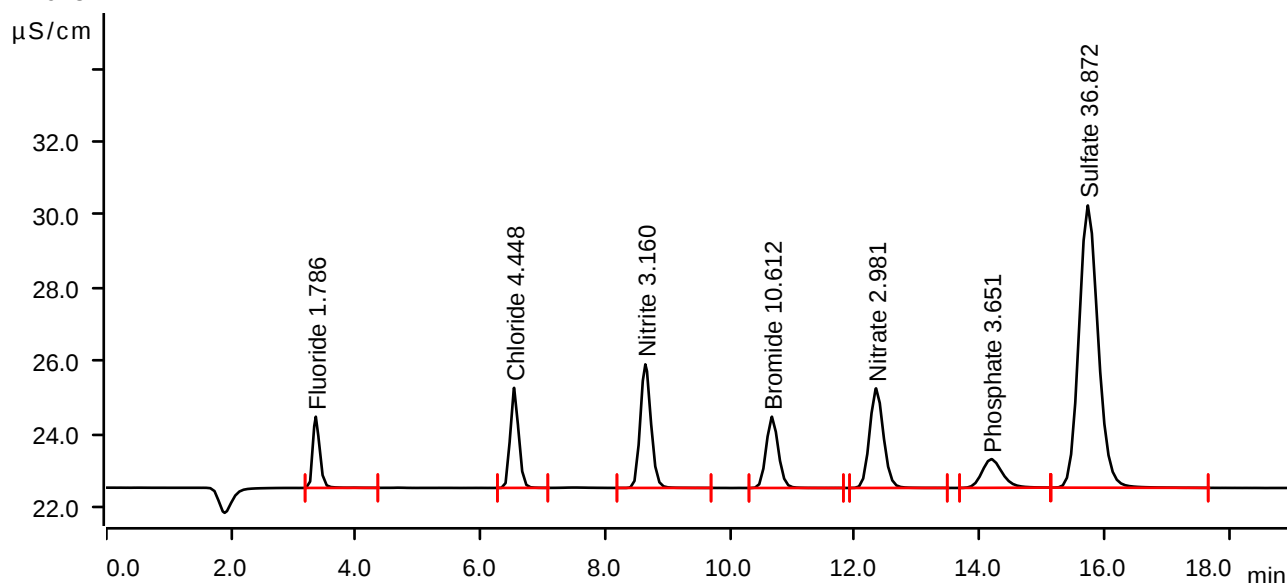
## Sample data

Ident . . . . . Q1858-01MSD  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 11:49:10 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.66 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.358                 | 0.2510                | 1.947           | 1.786                | Fluoride       |
| 2           | 6.538                 | 0.4274                | 2.734           | 4.448                | Chloride       |
| 3           | 8.642                 | 0.6733                | 3.377           | 3.160                | Nitrite        |
| 4           | 10.672                | 0.4430                | 1.948           | 10.612               | Bromide        |
| 5           | 12.342                | 0.7048                | 2.721           | 2.981                | Nitrate        |
| 6           | 14.188                | 0.2981                | 0.784           | 3.651                | Phosphate      |
| 7           | 15.737                | 2.7627                | 7.714           | 36.872               | Sulfate        |

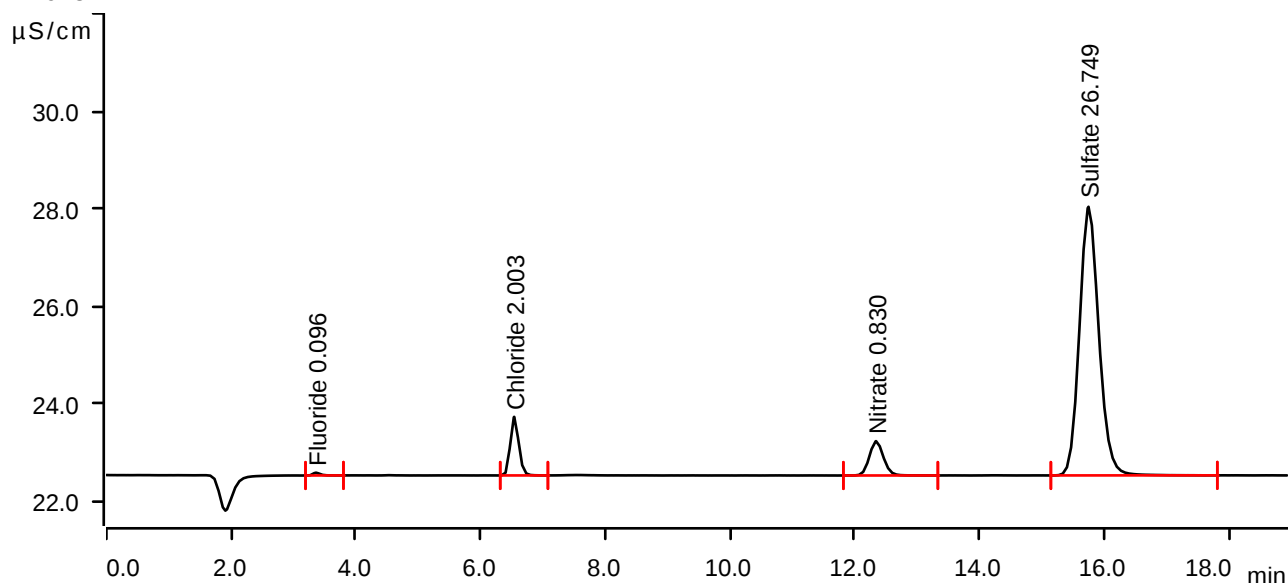
## Sample data

Ident . . . . . Q1858-02  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 12:10:44 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.66 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.362                 | 0.0076                | 0.057           | 0.096                | Fluoride       |
| 2           | 6.540                 | 0.1896                | 1.201           | 2.003                | Chloride       |
| 3           | 12.342                | 0.1845                | 0.703           | 0.830                | Nitrate        |
| 4           | 15.747                | 1.9917                | 5.507           | 26.749               | Sulfate        |

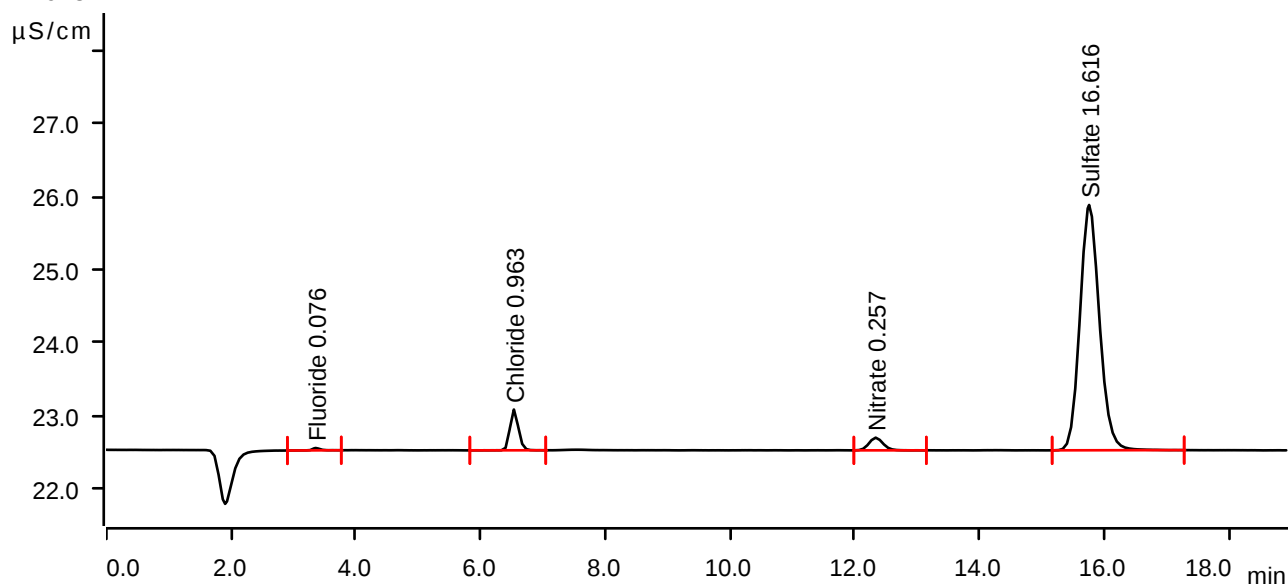
## Sample data

Ident . . . . . Q1858-03  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 12:32:19 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.66 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.357                 | 0.0049                | 0.033           | 0.076                | Fluoride       |
| 2           | 6.535                 | 0.0885                | 0.557           | 0.963                | Chloride       |
| 3           | 12.333                | 0.0458                | 0.173           | 0.257                | Nitrate        |
| 4           | 15.757                | 1.2200                | 3.352           | 16.616               | Sulfate        |

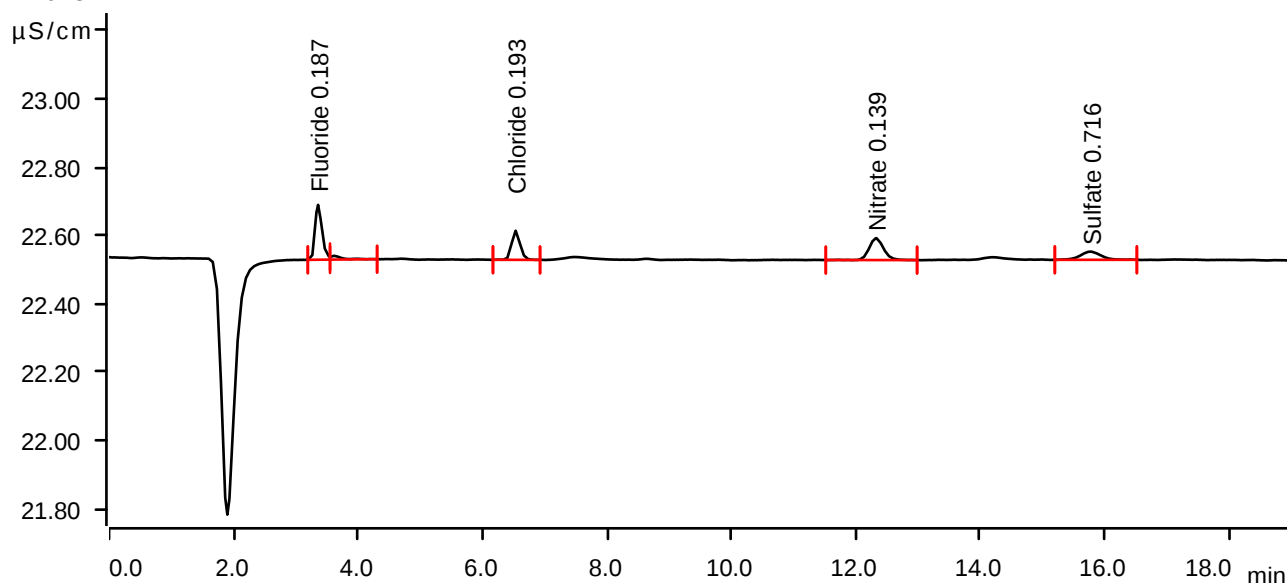
## Sample data

Ident . . . . . Q1859-01  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 12:53:53 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.60 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.360                 | 0.0208                | 0.161           | 0.187                | Fluoride       |
| 2           | 3.623                 | 0.0023                | 0.011           | invalid              |                |
| 3           | 6.533                 | 0.0136                | 0.085           | 0.193                | Chloride       |
| 4           | 12.322                | 0.0173                | 0.064           | 0.139                | Nitrate        |
| 5           | 15.775                | 0.0092                | 0.024           | 0.716                | Sulfate        |

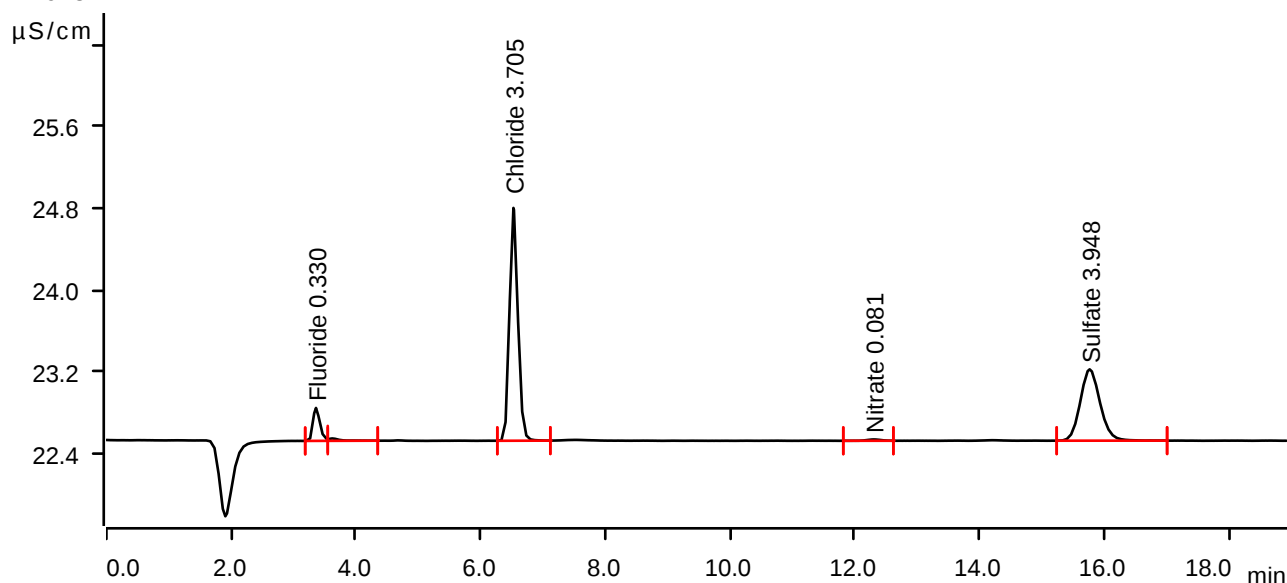
## Sample data

Ident . . . . . Q1859-02  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 13:15:27 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.66 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.362                 | 0.0414                | 0.321           | 0.330                | Fluoride       |
| 2           | 3.623                 | 0.0047                | 0.023           | invalid              |                |
| 3           | 6.527                 | 0.3552                | 2.272           | 3.705                | Chloride       |
| 4           | 12.302                | 0.0033                | 0.013           | 0.081                | Nitrate        |
| 5           | 15.765                | 0.2553                | 0.696           | 3.948                | Sulfate        |

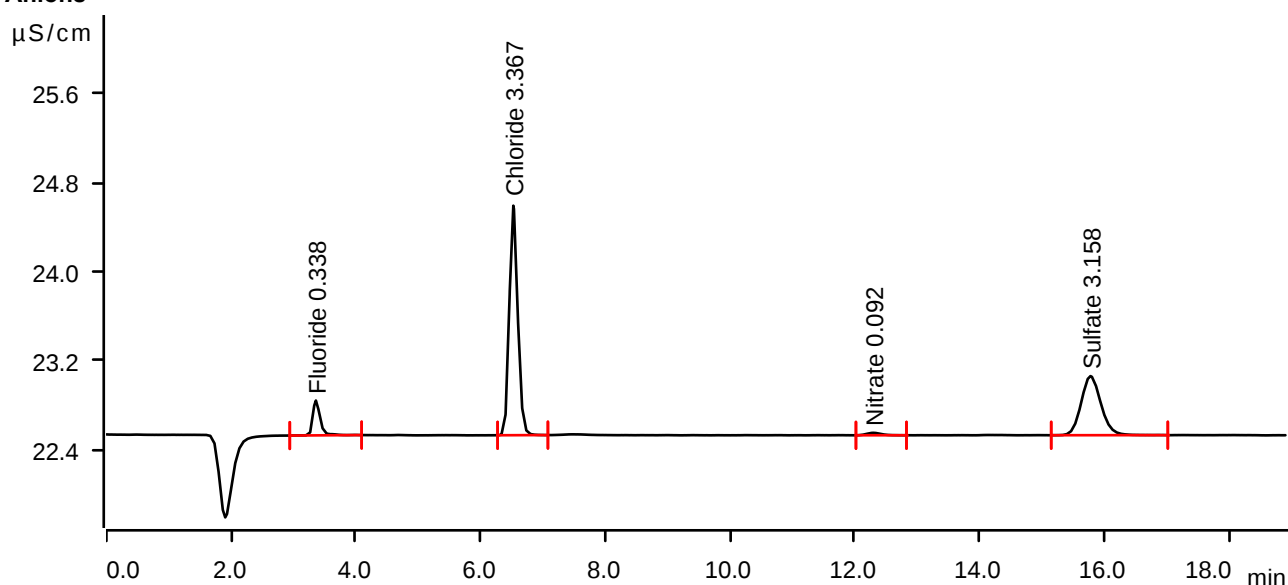
## Sample data

Ident . . . . . Q1859-03  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 13:36:59 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.60 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.360                 | 0.0425                | 0.313           | 0.338                | Fluoride       |
| 2           | 6.525                 | 0.3223                | 2.061           | 3.367                | Chloride       |
| 3           | 12.295                | 0.0059                | 0.022           | 0.092                | Nitrate        |
| 4           | 15.778                | 0.1952                | 0.531           | 3.158                | Sulfate        |

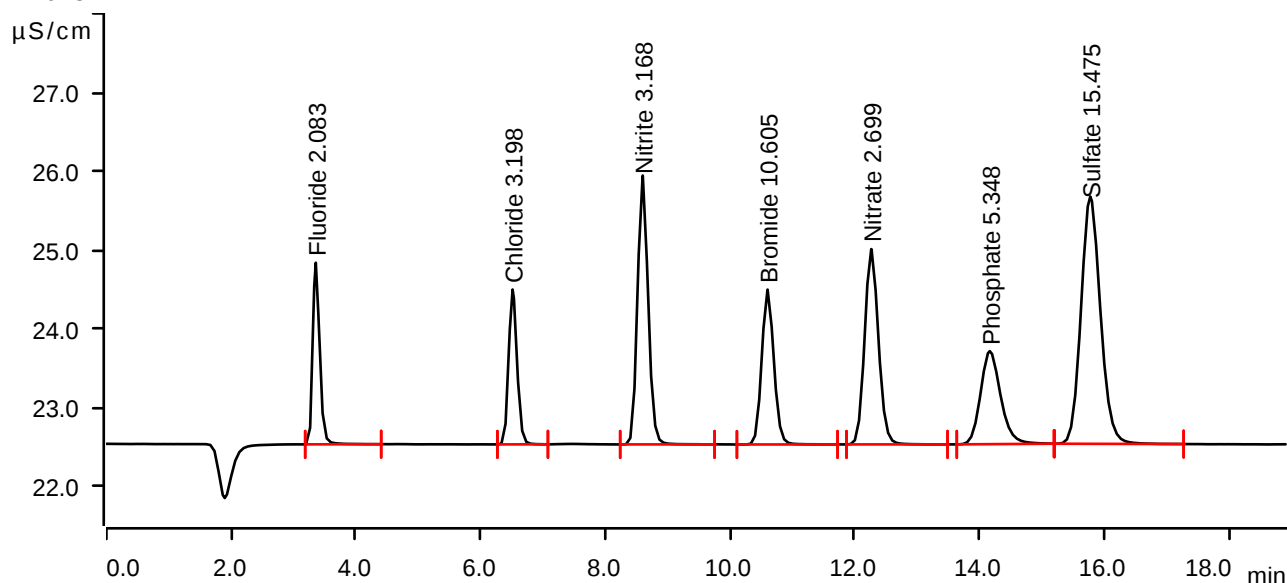
## Sample data

Ident . . . . . CCV  
Sample type . . . . . Check standard 1  
Determination start . . . . . 2025-04-23 13:58:30 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

## Anions

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.49 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

## Anions



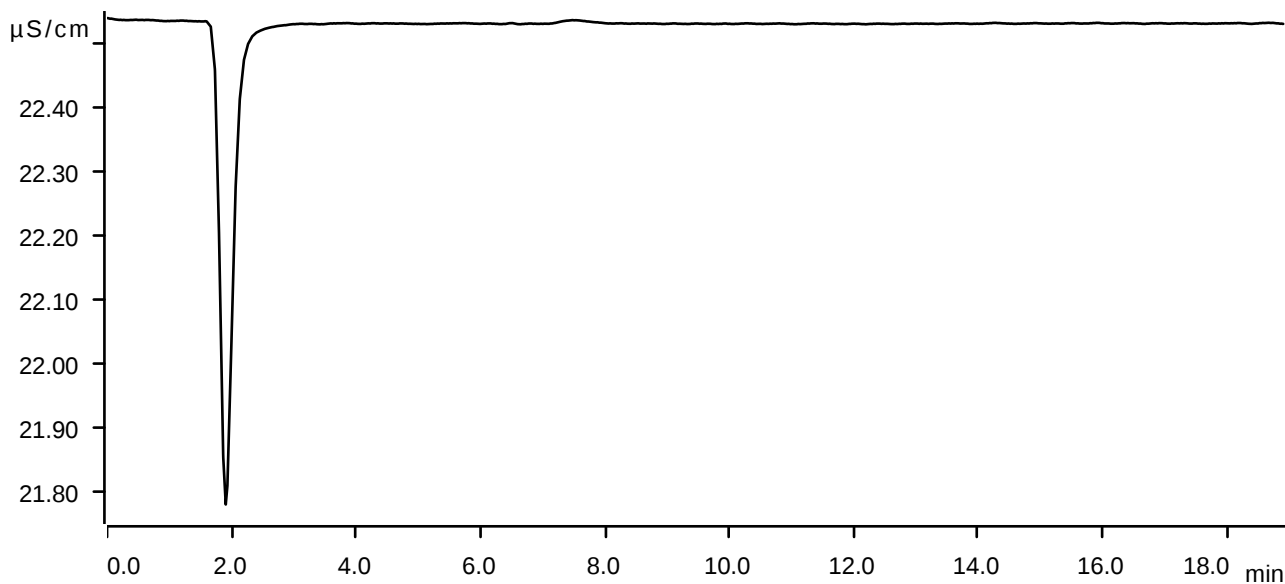
| Peak number | Retention time<br>min | Area<br>(µS/cm) x min | Height<br>µS/cm | Concentration<br>ppm | Component name |
|-------------|-----------------------|-----------------------|-----------------|----------------------|----------------|
| 1           | 3.358                 | 0.2939                | 2.304           | 2.083                | Fluoride       |
| 2           | 6.513                 | 0.3058                | 1.965           | 3.198                | Chloride       |
| 3           | 8.598                 | 0.6752                | 3.412           | 3.168                | Nitrite        |
| 4           | 10.600                | 0.4428                | 1.965           | 10.605               | Bromide        |
| 5           | 12.263                | 0.6366                | 2.479           | 2.699                | Nitrate        |
| 6           | 14.163                | 0.4412                | 1.180           | 5.348                | Phosphate      |
| 7           | 15.775                | 1.1331                | 3.139           | 15.475               | Sulfate        |

**Sample data**

Ident . . . . . CCB  
Sample type . . . . . Sample  
Determination start . . . . . 2025-04-23 14:20:00 UTC-4  
Method . . . . . IC1-042225  
Operator . . . . .

**Anions**

Data source . . . . . Conductivity detector 1 (Eco IC 1)  
Channel . . . . . Conductivity  
Recording time . . . . . 19.0 min  
Integration . . . . . Automatically  
Column type . . . . . Metrosep A Supp 19 - 150/4.0  
Eluent composition . . . . . not defined  
Flow . . . . . 0.700 mL/min  
Maximum flow monitored . . . . . yes  
Pressure . . . . . 11.60 MPa  
Maximum pressure monitored . . . . . yes  
Temperature . . . . . ---- °C

**Anions**

## Analytical Summary Report

Analysis Method: 7196A

ANALYST: rubina

Parameter: ~~Hexavalent Chromium~~

SUPERVISOR REVIEW BY: Iwona

Run Number: LB135535

pH Meter ID: WC pH Meter-1

| Reagent/Standard                  | Lot/Log # |
|-----------------------------------|-----------|
| hexavalent chromium color reagent | WP112767  |
| 5N sulfuric acid                  | WP110380  |
| HNO3 Hex-Chrome, 5M               | WP110381  |
| Hexchrome Cleaning Solution       | WP111249  |

Intercept: 0.0008

Slope: 0.763

Regression: 0.999925

| Seq | Lab ID | True Value (mg/l) | DF | Initial Vol (ml) | Final Vol (ml) | pH HNO3 | pH H2SO4 | Absorb.at 540nm |       | Absorbance Difference | Result (mg/L) | %D  | Anal Date  | Anal Time |
|-----|--------|-------------------|----|------------------|----------------|---------|----------|-----------------|-------|-----------------------|---------------|-----|------------|-----------|
|     |        |                   |    |                  |                |         |          | Backgrnd        | Color |                       |               |     |            |           |
| 1   | CAL1   | 0                 | 1  | 100              | 100            | 7.33    | 1.94     | 0.000           | 0.000 | 0.000                 | -0.00         |     | 04/23/2025 | 13:25     |
| 2   | CAL2   | 0.01              | 1  | 100              | 100            | 7.39    | 1.98     | 0.000           | 0.008 | 0.008                 | 0.009         | -10 | 04/23/2025 | 13:26     |
| 3   | CAL3   | 0.025             | 1  | 100              | 100            | 7.47    | 2.11     | 0.000           | 0.021 | 0.021                 | 0.026         | 4   | 04/23/2025 | 13:27     |
| 4   | CAL4   | 0.05              | 1  | 100              | 100            | 7.50    | 2.06     | 0.000           | 0.040 | 0.040                 | 0.051         | 2   | 04/23/2025 | 13:28     |
| 5   | CAL5   | 0.1               | 1  | 100              | 100            | 7.40    | 1.97     | 0.000           | 0.080 | 0.080                 | 0.103         | 3   | 04/23/2025 | 13:29     |
| 6   | CAL6   | 0.5               | 1  | 100              | 100            | 7.49    | 1.91     | 0.000           | 0.375 | 0.375                 | 0.490         | -2  | 04/23/2025 | 13:30     |
| 7   | CAL7   | 1                 | 1  | 100              | 100            | 7.38    | 1.90     | 0.000           | 0.767 | 0.767                 | 1.004         | 0.4 | 04/23/2025 | 13:31     |

# Analytical Summary Report

Analysis Method: 7196A

ANALYST:rubina

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY:Iwona

Run Number: LB135535

pH Meter ID:WC pH Meter-1

| Seq | Lab ID     | True Value | DF | Initial Vol (ml/gm) | Final Vol (ml) | pH HN03 | pH H2SO4 | Absorb.at540nm |       | Absorbance Difference | Intermediate Result (mg/L) | Anal Date  | Anal Time |
|-----|------------|------------|----|---------------------|----------------|---------|----------|----------------|-------|-----------------------|----------------------------|------------|-----------|
|     |            |            |    |                     |                |         |          | Backgrnd       | Color |                       |                            |            |           |
| 1   | ICV        | 0.5        | 1  | 100                 | 100            | 7.36    | 1.90     | 0.000          | 0.378 | 0.378                 | 0.494                      | 04/23/2025 | 13:32     |
| 2   | ICB        |            | 1  | 100                 | 100            | 7.30    | 1.84     | 0.000          | 0.001 | 0.001                 | 0.000                      | 04/23/2025 | 13:33     |
| 3   | CCV1       | 0.5        | 1  | 100                 | 100            | 7.44    | 1.99     | 0.000          | 0.383 | 0.383                 | 0.501                      | 04/23/2025 | 13:34     |
| 4   | CCB1       |            | 1  | 100                 | 100            | 7.26    | 1.77     | 0.000          | 0.000 | 0.000                 | -0.001                     | 04/23/2025 | 13:35     |
| 5   | RL Check   | 0.01       | 1  | 100                 | 100            | 7.43    | 1.93     | 0.000          | 0.009 | 0.009                 | 0.011                      | 04/23/2025 | 13:36     |
| 6   | PB167705BL |            | 1  | 2.50                | 100            | 7.28    | 1.92     | 0.000          | 0.000 | 0.000                 | -0.001                     | 04/23/2025 | 13:37     |
| 7   | PB167705BS | 20         | 1  | 2.50                | 100            | 7.46    | 2.00     | 0.000          | 0.386 | 0.386                 | 0.505                      | 04/23/2025 | 13:38     |
| 8   | Q1852-01   |            | 1  | 2.57                | 100            | 7.59    | 2.01     | 0.001          | 0.001 | 0.000                 | -0.001                     | 04/23/2025 | 13:39     |
| 9   | Q1852-01DU |            | 1  | 2.57                | 100            | 7.64    | 2.05     | 0.001          | 0.001 | 0.000                 | -0.001                     | 04/23/2025 | 13:40     |
| 10  | Q1852-01MS | 40         | 2  | 2.56                | 100            | 7.57    | 2.06     | 0.000          | 0.298 | 0.298                 | 0.390                      | 04/23/2025 | 13:41     |
| 11  | Q1852-01MS | 1284       | 40 | 2.57                | 100            | 7.62    | 2.10     | 0.000          | 0.596 | 0.596                 | 0.780                      | 04/23/2025 | 13:42     |
| 12  | Q1852-01MS | 40         | 2  | 2.55                | 100            | 7.60    | 2.06     | 0.000          | 0.359 | 0.359                 | 0.469                      | 04/23/2025 | 13:43     |
| 13  | Q1852-03   |            | 1  | 2.51                | 100            | 7.52    | 2.06     | 0.004          | 0.004 | 0.000                 | -0.001                     | 04/23/2025 | 13:44     |
| 14  | Q1852-05   |            | 1  | 2.58                | 100            | 7.36    | 1.90     | 0.002          | 0.003 | 0.001                 | 0.000                      | 04/23/2025 | 13:45     |
| 15  | Q1852-07   |            | 1  | 2.54                | 100            | 7.67    | 1.94     | 0.001          | 0.001 | 0.000                 | -0.001                     | 04/23/2025 | 13:46     |
| 16  | CCV2       | 0.5        | 1  | 100                 | 100            | 7.40    | 2.19     | 0.000          | 0.379 | 0.379                 | 0.496                      | 04/23/2025 | 13:47     |
| 17  | CCB2       |            | 1  | 100                 | 100            | 7.24    | 2.06     | 0.000          | 0.001 | 0.001                 | 0.000                      | 04/23/2025 | 13:48     |
| 18  | Q1853-01   |            | 1  | 2.55                | 100            | 7.55    | 2.10     | 0.010          | 0.011 | 0.001                 | 0.000                      | 04/23/2025 | 13:49     |
| 19  | Q1854-01   |            | 1  | 2.53                | 100            | 7.45    | 2.29     | 0.006          | 0.007 | 0.001                 | 0.000                      | 04/23/2025 | 13:50     |
| 20  | Q1858-01   |            | 1  | 2.51                | 100            | 7.52    | 2.06     | 0.004          | 0.004 | 0.000                 | -0.001                     | 04/23/2025 | 13:51     |
| 21  | Q1858-02   |            | 1  | 2.55                | 100            | 7.60    | 1.90     | 0.006          | 0.006 | 0.000                 | -0.001                     | 04/23/2025 | 13:52     |
| 22  | Q1858-03   |            | 1  | 2.55                | 100            | 7.64    | 2.29     | 0.003          | 0.004 | 0.001                 | 0.000                      | 04/23/2025 | 13:53     |
| 23  | Q1859-01   |            | 1  | 2.53                | 100            | 7.63    | 2.20     | 0.030          | 0.031 | 0.001                 | 0.000                      | 04/23/2025 | 13:54     |
| 24  | Q1859-02   |            | 1  | 2.54                | 100            | 7.60    | 2.06     | 0.002          | 0.002 | 0.000                 | -0.001                     | 04/23/2025 | 13:55     |
| 25  | Q1859-03   |            | 1  | 2.53                | 100            | 7.72    | 1.94     | 0.002          | 0.002 | 0.000                 | -0.001                     | 04/23/2025 | 13:56     |
| 26  | CCV3       | 0.5        | 1  | 100                 | 100            | 7.52    | 1.92     | 0.000          | 0.384 | 0.384                 | 0.502                      | 04/23/2025 | 13:57     |
| 27  | CCB3       |            | 1  | 100                 | 100            | 7.37    | 1.79     | 0.000          | 0.001 | 0.001                 | 0.000                      | 04/23/2025 | 13:58     |

LB13555

Test results

Aquakem 7.2AQ1

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CHEMTECH CONSULTING GROUP INC  
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RH

Instrument ID : Konelab

4/25/2025 12:55

Test: Ammonia-N

| Sample Id    | Result | Dil. 1 + | Response | Errors |
|--------------|--------|----------|----------|--------|
| ICV1         | 0.936  | 0.0      | 0.188    |        |
| ICB1         | 0.002  | 0.0      | 0.017    |        |
| CCV1         | 0.949  | 0.0      | 0.190    |        |
| CCB1         | -0.001 | 0.0      | 0.016    |        |
| RL CHECK.    | 0.092  | 0.0      | 0.033    |        |
| PB167731BL   | -0.002 | 0.0      | 0.016    |        |
| PB167731BS   | 0.942  | 0.0      | 0.189    |        |
| Q1858-01     | -0.003 | 0.0      | 0.016    |        |
| Q1858-01DUP  | -0.004 | 0.0      | 0.016    |        |
| Q1858-01MS   | 0.942  | 0.0      | 0.189    |        |
| Q1858-01MSD  | 0.949  | 0.0      | 0.190    |        |
| Q1858-02     | -0.004 | 0.0      | 0.016    |        |
| Q1858-03     | -0.006 | 0.0      | 0.015    |        |
| Q1859-01     | 0.007  | 0.0      | 0.018    |        |
| CCV2         | 0.989  | 0.0      | 0.198    |        |
| CCB2         | -0.002 | 0.0      | 0.016    |        |
| Q1859-02     | 0.462  | 0.0      | 0.101    |        |
| Q1859-03     | 0.007  | 0.0      | 0.018    |        |
| RL CHECK     | 0.087  | 0.0      | 0.032    |        |
| PB167733BL   | -0.005 | 0.0      | 0.016    |        |
| PB167733BS   | 0.934  | 0.0      | 0.188    |        |
| Q1879-01     | 0.036  | 0.0      | 0.023    |        |
| Q1879-02     | 1.942  | 0.0      | 0.372    |        |
| Q1879-03     | 0.035  | 0.0      | 0.023    |        |
| Q1879-04     | 6.804  | 0.0      | 1.263    |        |
| CCV3         | 0.933  | 0.0      | 0.187    |        |
| CCB3         | -0.002 | 0.0      | 0.016    |        |
| Q1879-04DLX5 | 1.378  | 0.0      | 0.269    |        |
| CCV4         | 0.986  | 0.0      | 0.197    |        |
| CCB4         | 0.002  | 0.0      | 0.017    |        |

92% (50-150) 04/25/2025  
RM

87% (50-150) 04/25/2025  
RM

Test limit high

N 30  
Mean 0.646  
SD 1.2840  
CV% 198.71

Aquakem v. 7.2AQ1

Results from time period:

Fri Apr 25 08:45:07 2025

Fri Apr 25 12:55:14 2025

| Sample Id    | Sam/Ctr/c/ | Test short r | Test type | Result  | Result unit | Result date and time | Stat |
|--------------|------------|--------------|-----------|---------|-------------|----------------------|------|
| 0.0PPM       | A          | Ammonia-† P  |           | 0.0096  | mg/l        | 4/25/2025 8:4507     |      |
| 0.1PPM       | A          | Ammonia-† P  |           | 0.1014  | mg/l        | 4/25/2025 8:4508     |      |
| 0.2PPM       | A          | Ammonia-† P  |           | 0.1955  | mg/l        | 4/25/2025 8:4509     |      |
| 0.4PPM       | A          | Ammonia-† P  |           | 0.4062  | mg/l        | 4/25/2025 8:4510     |      |
| 1.0PPM       | A          | Ammonia-† P  |           | 0.9863  | mg/l        | 4/25/2025 8:4511     |      |
| 1.3PPM       | A          | Ammonia-† P  |           | 1.3186  | mg/l        | 4/25/2025 8:4512     |      |
| 2.0PPM       | A          | Ammonia-† P  |           | 2.0158  | mg/l        | 4/25/2025 8:4513     |      |
| ICV1         | S          | Ammonia-† P  |           | 0.9362  | mg/l        | 4/25/2025 11:3812    |      |
| ICB1         | S          | Ammonia-† P  |           | 0.0017  | mg/l        | 4/25/2025 11:3815    |      |
| CCV1         | S          | Ammonia-† P  |           | 0.9491  | mg/l        | 4/25/2025 11:3816    |      |
| CCB1         | S          | Ammonia-† P  |           | -0.0007 | mg/l        | 4/25/2025 11:3818    |      |
| RL CHECK     | S          | Ammonia-† P  |           | 0.0923  | mg/l        | 4/25/2025 11:3820    |      |
| PB167731BL   | S          | Ammonia-† P  |           | -0.0022 | mg/l        | 4/25/2025 11:3823    |      |
| PB167731BS   | S          | Ammonia-† P  |           | 0.9423  | mg/l        | 4/25/2025 11:4856    |      |
| Q1858-01     | S          | Ammonia-† P  |           | -0.0031 | mg/l        | 4/25/2025 11:4859    |      |
| Q1858-01DUP  | S          | Ammonia-† P  |           | -0.0043 | mg/l        | 4/25/2025 11:4900    |      |
| Q1858-01MS   | S          | Ammonia-† P  |           | 0.9416  | mg/l        | 4/25/2025 11:4902    |      |
| Q1858-01MSD  | S          | Ammonia-† P  |           | 0.9492  | mg/l        | 4/25/2025 11:4903    |      |
| Q1858-02     | S          | Ammonia-† P  |           | -0.0037 | mg/l        | 4/25/2025 11:4906    |      |
| Q1858-03     | S          | Ammonia-† P  |           | -0.0061 | mg/l        | 4/25/2025 11:4907    |      |
| Q1859-01     | S          | Ammonia-† P  |           | 0.0067  | mg/l        | 4/25/2025 11:5940    |      |
| CCV2         | S          | Ammonia-† P  |           | 0.9894  | mg/l        | 4/25/2025 11:5942    |      |
| CCB2         | S          | Ammonia-† P  |           | -0.0019 | mg/l        | 4/25/2025 11:5944    |      |
| Q1859-02     | S          | Ammonia-† P  |           | 0.4617  | mg/l        | 4/25/2025 11:5945    |      |
| Q1859-03     | S          | Ammonia-† P  |           | 0.0074  | mg/l        | 4/25/2025 11:5946    |      |
| RL CHECK     | S          | Ammonia-† P  |           | 0.0867  | mg/l        | 4/25/2025 11:5948    |      |
| PB167733BL   | S          | Ammonia-† P  |           | -0.0046 | mg/l        | 4/25/2025 11:5949    |      |
| PB167733BS   | S          | Ammonia-† P  |           | 0.9337  | mg/l        | 4/25/2025 12:0946    |      |
| Q1879-01     | S          | Ammonia-† P  |           | 0.0355  | mg/l        | 4/25/2025 12:0947    |      |
| Q1879-02     | S          | Ammonia-† P  |           | 1.9419  | mg/l        | 4/25/2025 12:0948    |      |
| Q1879-03     | S          | Ammonia-† P  |           | 0.0351  | mg/l        | 4/25/2025 12:0949    |      |
| Q1879-04     | S          | Ammonia-† P  |           | 6.8037  | mg/l        | 4/25/2025 12:0950    |      |
| CCV3         | S          | Ammonia-† P  |           | 0.9331  | mg/l        | 4/25/2025 12:0951    |      |
| CCB3         | S          | Ammonia-† P  |           | -0.0021 | mg/l        | 4/25/2025 12:0956    |      |
| Q1879-04DLX5 | S          | Ammonia-† P  |           | 1.3779  | mg/l        | 4/25/2025 12:5509    |      |
| CCV4         | S          | Ammonia-† P  |           | 0.9865  | mg/l        | 4/25/2025 12:5511    |      |
| CCB4         | S          | Ammonia-† P  |           | 0.0024  | mg/l        | 4/25/2025 12:5513    |      |

Calibration results

Aquakem 7.2AQ1

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CHEMTECH CONSULTING GROUP INC  
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

4/25/2025 10:40

Test Ammonia-N

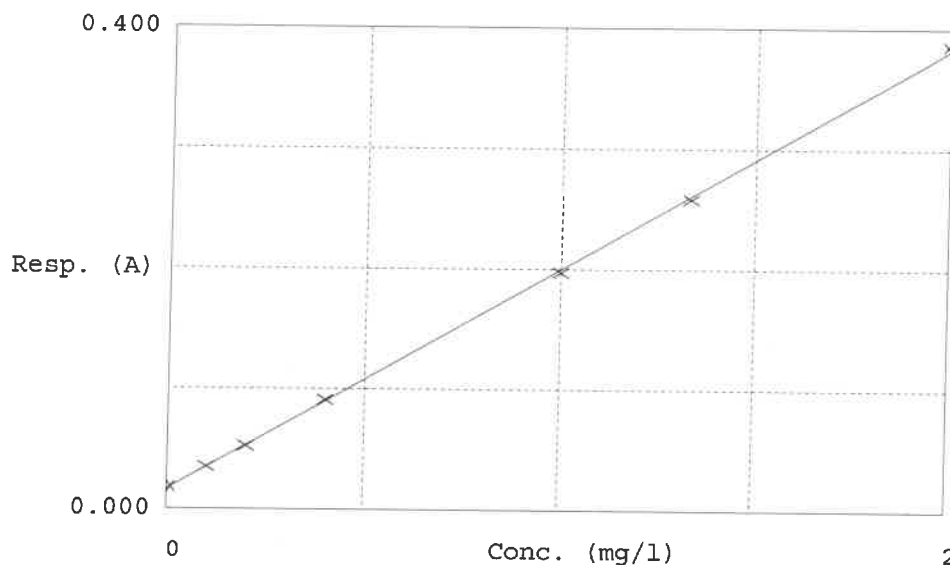
Accepted 4/25/2025 10:40

Factor 5.458

Bias 0.016

Coeff. of det. 0.999761

Errors



|   | Calibrator | Response | Calc. con. | Conc.  | <u>RE</u><br>Errors |
|---|------------|----------|------------|--------|---------------------|
| 1 | 0.00PPM    | 0.018    | 0.0096     | 0.0000 | -                   |
| 2 | NH3-2PPM   | 0.035    | 0.1014     | 0.1000 | 1.4                 |
| 3 | NH3-2PPM   | 0.052    | 0.1955     | 0.2000 | -2.3                |
| 4 | NH3-2PPM   | 0.091    | 0.4062     | 0.4000 | 1.6                 |
| 5 | NH3-2PPM   | 0.197    | 0.9863     | 1.0000 | -1.4                |
| 6 | NH3-2PPM   | 0.258    | 1.3186     | 1.3333 | 1.4                 |
| 7 | NH3-2PPM   | 0.386    | 2.0158     | 2.0000 | 0.8                 |

04/25/2025  
RM

SOP ID : M3060A,7196A-Hex.Chromium-26

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#3

Block ID : WC S-1, WC S-2

Weigh By : RM

Start Digest Date: 04/23/2025 Time : 09:30 Temp : 90 °C

End Digest Date: 04/23/2025 Time : 10:30 Temp : 93 °C

*batch* 04/23/2025 10:50 90 °C RM  
 04/23/2025 11:50 95 °C

Digestion tube ID : M6054

Block Thermometer ID : WC-Block#1

Filter paper ID : 400213

 Prep Technician Signature: *RM*

pH Meter ID : WC pH meter-1

 Supervisor Signature: *12*

| Standard Name        | MLS USED | STD REF. # FROM LOG |
|----------------------|----------|---------------------|
| PRE-DIGESTION SPIKE  | 2.0ML    | WP111315            |
| INSOLUBLE SPIKE      | 0.02GM   | W2202               |
| POST-DIGESTION SPIKE | 2.0ML    | WP111315            |
| LCSS                 | 1.0ML    | WP111316            |
| PBS003               | 50.ML    | W3112               |

| Chemical Used        | ML/SAMPLE USED | Lot Number |
|----------------------|----------------|------------|
| MAGNESIUM CHLORIDE   | 0.4GM          | W3152      |
| PHOSPHATE BUFFER     | 0.5ML          | WP110498   |
| HEX. DIGESTION SOLN. | 50.0ML         | WP112686   |
| 5M HNO3              | 5-7ML          | WP110381   |
| 5N H2SO4             | 1-3ML          | WP110380   |
| N/A                  | N/A            | N/A        |
| N/A                  | N/A            | N/A        |
| N/A                  | N/A            | N/A        |
| N/A                  | N/A            | N/A        |
| N/A                  | N/A            | N/A        |
| N/A                  | N/A            | N/A        |

| LAB SAMPLE ID | CLIENT SAMPLE ID | Vol(ml) | Comment  |
|---------------|------------------|---------|----------|
| CAL1          | CAL1             | 2.5ML   | W3112    |
| CAL2          | CAL2             | 0.2ML   | WP112817 |
| CAL3          | CAL3             | 0.5ML   | WP112817 |
| CAL4          | CAL4             | 1ML     | WP112817 |
| CAL5          | CAL5             | 0.2ML   | WP111315 |
| CAL6          | CAL6             | 1ML     | WP111315 |
| CAL7          | CAL7             | 2.0ML   | WP111315 |
| ICV           | ICV              | 1ML     | WP111316 |
| ICB           | ICB              | 2.5ML   | W3112    |
| CCV           | CCV              | 1ML     | WP111315 |
| CCB           | CCB              | 2.5ML   | W3112    |

Extraction Conformance/Non-Conformance Comments:

04/23/2025 RM

N/A

| Date / Time | Prepped Sample Relinquished By/Location | Received By/Location |
|-------------|-----------------------------------------|----------------------|
|             |                                         |                      |
|             | Preparation Group                       | Analysis Group       |

| Lab Sample ID   | Client Sample ID | Initial Weight (g) | Final Vol (ml) | pH  | Sulfide | Oxidizing | Nitrate/ Nitrite | Comment | Prep Pos |
|-----------------|------------------|--------------------|----------------|-----|---------|-----------|------------------|---------|----------|
| PB167705BL      | PBS705           | 2.50               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| PB167705BS      | LCS705           | 2.50               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1852-01DUP     | ETGI-354DUP      | 2.57               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1852-01MSPre   | ETGI-354MSPRE    | 2.56               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1852-01MS2Ins  | ETGI-354MS2INS   | 2.57               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1852-01MS3Post | ETGI-354MS3POST  | 2.55               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1852-01        | ETGI-354         | 2.57               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1852-03        | 72-11977         | 2.51               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1852-05        | ETGI-278         | 2.58               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1852-07        | 72-12013         | 2.54               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1853-01        | EO-02-04222025   | 2.55               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1854-01        | NB-08-04222025   | 2.53               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1858-01        | COMP-1           | 2.51               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1858-02        | COMP-2           | 2.55               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1858-03        | COMP-3           | 2.55               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1859-01        | COMP-1           | 2.53               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1859-02        | COMP-2           | 2.54               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |
| Q1859-03        | COMP-3           | 2.53               | 100            | N/A | N/A     | N/A       | N/A              | N/A     | N/A      |

**Instrument ID:** IC-2

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135527**

|                  |                                                                |              |                      |
|------------------|----------------------------------------------------------------|--------------|----------------------|
| Review By        | rubina                                                         | Review On    | 4/25/2025 4:10:27 PM |
| Supervise By     | Iwona                                                          | Supervise On | 4/25/2025 4:17:49 PM |
| SubDirectory     | LB135527                                                       | Test         | Anions               |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                               |              |                      |
| ICAL Standard    | WP112787,WP112788,WP112789,WP112790,WP112791,WP112792,WP112793 |              |                      |
| ICV Standard     | WP112794                                                       |              |                      |
| CCV Standard     | WP112824                                                       |              |                      |
| ICSA Standard    | N/A                                                            |              |                      |
| CRI Standard     | N/A                                                            |              |                      |
| LCS Standard     | WP112825                                                       |              |                      |
| Chk Standard     | WP112798,WP112800                                              |              |                      |

| Sr# | SampleId    | ClientID    | QcType | Date           | Comment                     | Operator | Status |
|-----|-------------|-------------|--------|----------------|-----------------------------|----------|--------|
| 1   | STD1        | STD1        | CAL1   | 04/22/25 10:37 | All standards, samples, and | NF/IZ    | OK     |
| 2   | STD2        | STD2        | CAL2   | 04/22/25 10:59 | QC are filtered through     | NF/IZ    | OK     |
| 3   | STD3        | STD3        | CAL3   | 04/22/25 11:20 | 0.45um, filter lot W3160    | NF/IZ    | OK     |
| 4   | STD4        | STD4        | CAL4   | 04/22/25 11:42 |                             | NF/IZ    | OK     |
| 5   | STD5        | STD5        | CAL5   | 04/22/25 12:03 |                             | NF/IZ    | OK     |
| 6   | STD6        | STD6        | CAL6   | 04/22/25 12:25 |                             | NF/IZ    | OK     |
| 7   | STD7        | STD7        | CAL7   | 04/22/25 12:46 |                             | NF/IZ    | OK     |
| 8   | ICV1        | ICV1        | ICV    | 04/22/25 13:07 |                             | NF/IZ    | OK     |
| 9   | ICB1        | ICB1        | ICB    | 04/22/25 13:58 |                             | NF/IZ    | OK     |
| 10  | CCV1        | CCV1        | CCV    | 04/23/25 09:40 |                             | NF/IZ    | OK     |
| 11  | CCB1        | CCB1        | CCB    | 04/23/25 10:01 |                             | NF/IZ    | OK     |
| 12  | LB135527BLS | LB135527BLS | MB     | 04/23/25 10:23 |                             | NF/IZ    | OK     |
| 13  | LB135527BSS | LB135527BSS | LCS    | 04/23/25 10:44 |                             | NF/IZ    | OK     |
| 14  | Q1858-01    | COMP-1      | SAM    | 04/23/25 11:06 |                             | NF/IZ    | OK     |
| 15  | Q1858-01MS  | COMP-1MS    | MS     | 04/23/25 11:27 | 5ml W3092                   | NF/IZ    | OK     |
| 16  | Q1858-01MSD | COMP-1MSD   | MSD    | 04/23/25 11:49 | 5ml W3092                   | NF/IZ    | OK     |
| 17  | Q1858-02    | COMP-2      | SAM    | 04/23/25 12:10 |                             | NF/IZ    | OK     |
| 18  | Q1858-03    | COMP-3      | SAM    | 04/23/25 12:32 |                             | NF/IZ    | OK     |

Instrument ID: IC-2

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135527**

|                  |                                                                |              |                      |
|------------------|----------------------------------------------------------------|--------------|----------------------|
| Review By        | rubina                                                         | Review On    | 4/25/2025 4:10:27 PM |
| Supervise By     | Iwona                                                          | Supervise On | 4/25/2025 4:17:49 PM |
| SubDirectory     | LB135527                                                       | Test         | Anions               |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                               |              |                      |
| ICAL Standard    | WP112787,WP112788,WP112789,WP112790,WP112791,WP112792,WP112793 |              |                      |
| ICV Standard     | WP112794                                                       |              |                      |
| CCV Standard     | WP112824                                                       |              |                      |
| ICSA Standard    | N/A                                                            |              |                      |
| CRI Standard     | N/A                                                            |              |                      |
| LCS Standard     | WP112825                                                       |              |                      |
| Chk Standard     | WP112798,WP112800                                              |              |                      |

|    |          |        |     |                |  |       |    |
|----|----------|--------|-----|----------------|--|-------|----|
| 19 | Q1859-01 | COMP-1 | SAM | 04/23/25 12:53 |  | NF/IZ | OK |
| 20 | Q1859-02 | COMP-2 | SAM | 04/23/25 13:15 |  | NF/IZ | OK |
| 21 | Q1859-03 | COMP-3 | SAM | 04/23/25 13:36 |  | NF/IZ | OK |
| 22 | CCV2     | CCV2   | CCV | 04/23/25 13:58 |  | NF/IZ | OK |
| 23 | CCB2     | CCB2   | CCB | 04/23/25 14:20 |  | NF/IZ | OK |

**Instrument ID:** SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135535**

|                  |                                     |              |                      |
|------------------|-------------------------------------|--------------|----------------------|
| Review By        | rubina                              | Review On    | 4/23/2025 4:08:56 PM |
| Supervise By     | Iwona                               | Supervise On | 4/23/2025 4:12:08 PM |
| SubDirectory     | LB135535                            | Test         | Hexavalent Chromium  |
| <b>STD. NAME</b> | <b>STD REF.#</b>                    |              |                      |
| ICAL Standard    | N/A                                 |              |                      |
| ICV Standard     | N/A                                 |              |                      |
| CCV Standard     | N/A                                 |              |                      |
| ICSA Standard    | N/A                                 |              |                      |
| CRI Standard     | N/A                                 |              |                      |
| LCS Standard     | N/A                                 |              |                      |
| Chk Standard     | WP112767,WP110380,WP110381,WP111249 |              |                      |

| Sr# | SampleId       | ClientID    | QcType | Date           | Comment | Operator | Status |
|-----|----------------|-------------|--------|----------------|---------|----------|--------|
| 1   | CAL1           | CAL1        | CAL    | 04/23/25 13:25 |         | rubina   | OK     |
| 2   | CAL2           | CAL2        | CAL    | 04/23/25 13:26 |         | rubina   | OK     |
| 3   | CAL3           | CAL3        | CAL    | 04/23/25 13:27 |         | rubina   | OK     |
| 4   | CAL4           | CAL4        | CAL    | 04/23/25 13:28 |         | rubina   | OK     |
| 5   | CAL5           | CAL5        | CAL    | 04/23/25 13:29 |         | rubina   | OK     |
| 6   | CAL6           | CAL6        | CAL    | 04/23/25 13:30 |         | rubina   | OK     |
| 7   | CAL7           | CAL7        | CAL    | 04/23/25 13:31 |         | rubina   | OK     |
| 8   | ICV            | ICV         | ICV    | 04/23/25 13:32 |         | rubina   | OK     |
| 9   | ICB            | ICB         | ICB    | 04/23/25 13:33 |         | rubina   | OK     |
| 10  | CCV1           | CCV1        | CCV    | 04/23/25 13:34 |         | rubina   | OK     |
| 11  | CCB1           | CCB1        | CCB    | 04/23/25 13:35 |         | rubina   | OK     |
| 12  | RL Check       | RL Check    | SAM    | 04/23/25 13:36 |         | rubina   | OK     |
| 13  | PB167705BL     | PB167705BL  | MB     | 04/23/25 13:37 |         | rubina   | OK     |
| 14  | PB167705BS     | PB167705BS  | LCS    | 04/23/25 13:38 |         | rubina   | OK     |
| 15  | Q1852-01       | ETGI-354    | SAM    | 04/23/25 13:39 |         | rubina   | OK     |
| 16  | Q1852-01DUP    | ETGI-354DUP | DUP    | 04/23/25 13:40 |         | rubina   | OK     |
| 17  | Q1852-01MSPre  | ETGI-354MS  | MS     | 04/23/25 13:41 |         | rubina   | OK     |
| 18  | Q1852-01MS2Ins | ETGI-354MS  | MS     | 04/23/25 13:42 |         | rubina   | OK     |

Instrument ID: SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135535**

|                  |                                     |              |                      |
|------------------|-------------------------------------|--------------|----------------------|
| Review By        | rubina                              | Review On    | 4/23/2025 4:08:56 PM |
| Supervise By     | Iwona                               | Supervise On | 4/23/2025 4:12:08 PM |
| SubDirectory     | LB135535                            | Test         | Hexavalent Chromium  |
| <b>STD. NAME</b> | <b>STD REF.#</b>                    |              |                      |
| ICAL Standard    | N/A                                 |              |                      |
| ICV Standard     | N/A                                 |              |                      |
| CCV Standard     | N/A                                 |              |                      |
| ICSA Standard    | N/A                                 |              |                      |
| CRI Standard     | N/A                                 |              |                      |
| LCS Standard     | N/A                                 |              |                      |
| Chk Standard     | WP112767,WP110380,WP110381,WP111249 |              |                      |

|    |                 |                |     |                |  |        |    |
|----|-----------------|----------------|-----|----------------|--|--------|----|
| 19 | Q1852-01MS3Post | ETGI-354MS     | MS  | 04/23/25 13:43 |  | rubina | OK |
| 20 | Q1852-03        | 72-11977       | SAM | 04/23/25 13:44 |  | rubina | OK |
| 21 | Q1852-05        | ETGI-278       | SAM | 04/23/25 13:45 |  | rubina | OK |
| 22 | Q1852-07        | 72-12013       | SAM | 04/23/25 13:46 |  | rubina | OK |
| 23 | CCV2            | CCV2           | CCV | 04/23/25 13:47 |  | rubina | OK |
| 24 | CCB2            | CCB2           | CCB | 04/23/25 13:48 |  | rubina | OK |
| 25 | Q1853-01        | EO-02-04222025 | SAM | 04/23/25 13:49 |  | rubina | OK |
| 26 | Q1854-01        | NB-08-04222025 | SAM | 04/23/25 13:50 |  | rubina | OK |
| 27 | Q1858-01        | COMP-1         | SAM | 04/23/25 13:51 |  | rubina | OK |
| 28 | Q1858-02        | COMP-2         | SAM | 04/23/25 13:52 |  | rubina | OK |
| 29 | Q1858-03        | COMP-3         | SAM | 04/23/25 13:53 |  | rubina | OK |
| 30 | Q1859-01        | COMP-1         | SAM | 04/23/25 13:54 |  | rubina | OK |
| 31 | Q1859-02        | COMP-2         | SAM | 04/23/25 13:55 |  | rubina | OK |
| 32 | Q1859-03        | COMP-3         | SAM | 04/23/25 13:56 |  | rubina | OK |
| 33 | CCV3            | CCV3           | CCV | 04/23/25 13:57 |  | rubina | OK |
| 34 | CCB3            | CCB3           | CCB | 04/23/25 13:58 |  | rubina | OK |

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135559**

|                  |                                     |
|------------------|-------------------------------------|
| Review By        | Review On                           |
| Supervise By     | Supervise On                        |
| SubDirectory     | LB135559                            |
| Test             | Ammonia                             |
| <b>STD. NAME</b> | <b>STD REF.#</b>                    |
| ICAL Standard    | WP112840                            |
| ICV Standard     | WP112842                            |
| CCV Standard     | WP112841                            |
| ICSA Standard    | N/A                                 |
| CRI Standard     | N/A                                 |
| LCS Standard     | WP112614                            |
| Chk Standard     | WP112537,WP111745,WP111385,WP111660 |

| Sr# | SampleId    | ClientID   | QcType | Date           | Comment | Operator | Status |
|-----|-------------|------------|--------|----------------|---------|----------|--------|
| 1   | 0.0PPM      | 0.0PPM     | CAL1   | 04/25/25 08:45 |         | rubina   | OK     |
| 2   | 0.1PPM      | 0.1PPM     | CAL2   | 04/25/25 08:45 |         | rubina   | OK     |
| 3   | 0.2PPM      | 0.2PPM     | CAL3   | 04/25/25 08:45 |         | rubina   | OK     |
| 4   | 0.4PPM      | 0.4PPM     | CAL4   | 04/25/25 08:45 |         | rubina   | OK     |
| 5   | 1.0PPM      | 1.0PPM     | CAL5   | 04/25/25 08:45 |         | rubina   | OK     |
| 6   | 1.3PPM      | 1.3PPM     | CAL6   | 04/25/25 08:45 |         | rubina   | OK     |
| 7   | 2.0PPM      | 2.0PPM     | CAL7   | 04/25/25 08:45 |         | rubina   | OK     |
| 8   | ICV1        | ICV1       | ICV    | 04/25/25 11:38 |         | rubina   | OK     |
| 9   | ICB1        | ICB1       | ICB    | 04/25/25 11:38 |         | rubina   | OK     |
| 10  | CCV1        | CCV1       | CCV    | 04/25/25 11:38 |         | rubina   | OK     |
| 11  | CCB1        | CCB1       | CCB    | 04/25/25 11:38 |         | rubina   | OK     |
| 12  | RL          | RL         | SAM    | 04/25/25 11:38 |         | rubina   | OK     |
| 13  | PB167731BL  | PB167731BL | MB     | 04/25/25 11:38 |         | rubina   | OK     |
| 14  | PB167731BS  | PB167731BS | LCS    | 04/25/25 11:48 |         | rubina   | OK     |
| 15  | Q1858-01    | COMP-1     | SAM    | 04/25/25 11:48 |         | rubina   | OK     |
| 16  | Q1858-01DUP | COMP-1DUP  | DUP    | 04/25/25 11:49 |         | rubina   | OK     |
| 17  | Q1858-01MS  | COMP-1MS   | MS     | 04/25/25 11:49 |         | rubina   | OK     |
| 18  | Q1858-01MSD | COMP-1MSD  | MSD    | 04/25/25 11:49 |         | rubina   | OK     |

Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135559**

| Review By             | Review On                           |
|-----------------------|-------------------------------------|
| Supervise By          | Supervise On                        |
| SubDirectory LB135559 | Test Ammonia                        |
| STD. NAME             | STD REF.#                           |
| ICAL Standard         | WP112840                            |
| ICV Standard          | WP112842                            |
| CCV Standard          | WP112841                            |
| ICSA Standard         | N/A                                 |
| CRI Standard          | N/A                                 |
| LCS Standard          | WP112614                            |
| Chk Standard          | WP112537,WP111745,WP111385,WP111660 |

|    |            |                   |     |                |           |        |          |
|----|------------|-------------------|-----|----------------|-----------|--------|----------|
| 19 | Q1858-02   | COMP-2            | SAM | 04/25/25 11:49 |           | rubina | OK       |
| 20 | Q1858-03   | COMP-3            | SAM | 04/25/25 11:49 |           | rubina | OK       |
| 21 | Q1859-01   | COMP-1            | SAM | 04/25/25 11:59 |           | rubina | OK       |
| 22 | CCV2       | CCV2              | CCV | 04/25/25 11:59 |           | rubina | OK       |
| 23 | CCB2       | CCB2              | CCB | 04/25/25 11:59 |           | rubina | OK       |
| 24 | Q1859-02   | COMP-2            | SAM | 04/25/25 11:59 |           | rubina | OK       |
| 25 | Q1859-03   | COMP-3            | SAM | 04/25/25 11:59 |           | rubina | OK       |
| 26 | RL         | RL                | SAM | 04/25/25 11:59 |           | rubina | OK       |
| 27 | PB167733BL | PB167733BL        | MB  | 04/25/25 11:59 |           | rubina | OK       |
| 28 | PB167733BS | PB167733BS        | LCS | 04/25/25 12:09 |           | rubina | OK       |
| 29 | Q1879-01   | STEM-31-SULFURIC  | SAM | 04/25/25 12:09 |           | rubina | OK       |
| 30 | Q1879-02   | STEM-32-SULFURIC  | SAM | 04/25/25 12:09 |           | rubina | OK       |
| 31 | Q1879-03   | STEM-46-SULFURIC  | SAM | 04/25/25 12:09 |           | rubina | OK       |
| 32 | Q1879-04   | ACID-MIXTURE-TF-C | SAM | 04/25/25 12:09 | High      | rubina | Dilution |
| 33 | CCV3       | CCV3              | CCV | 04/25/25 12:09 |           | rubina | OK       |
| 34 | CCB3       | CCB3              | CCB | 04/25/25 12:09 |           | rubina | OK       |
| 35 | Q1879-04DL | ACID-MIXTURE-TF-C | SAM | 04/25/25 12:55 | Report 5X | rubina | Confirms |
| 36 | CCV4       | CCV4              | CCV | 04/25/25 12:55 |           | rubina | OK       |
| 37 | CCB4       | CCB4              | CCB | 04/25/25 12:55 |           | rubina | OK       |

**Instrument ID:** GRAVIMETRIC

**Daily Analysis Runlog For Sequence/QC Batch ID # LB135570**

|                  |                  |              |                      |
|------------------|------------------|--------------|----------------------|
| Review By        | JSathvara        | Review On    | 4/28/2025 2:41:56 AM |
| Supervise By     | pradip           | Supervise On | 4/28/2025 3:06:22 AM |
| SubDirectory     | LB135570         | Test         | Trivalent Chromium   |
| <b>STD. NAME</b> | <b>STD REF.#</b> |              |                      |
| ICAL Standard    | N/A              |              |                      |
| ICV Standard     | N/A              |              |                      |
| CCV Standard     | N/A              |              |                      |
| ICSA Standard    | N/A              |              |                      |
| CRI Standard     | N/A              |              |                      |
| LCS Standard     | N/A              |              |                      |
| Chk Standard     | N/A              |              |                      |

| Sr# | SampleId | ClientID | QcType | Date           | Comment | Operator  | Status |
|-----|----------|----------|--------|----------------|---------|-----------|--------|
| 1   | Q1859-01 | COMP-1   | SAM    | 04/23/25 17:39 |         | JSathvara | OK     |
| 2   | Q1859-02 | COMP-2   | SAM    | 04/23/25 17:43 |         | JSathvara | OK     |
| 3   | Q1859-03 | COMP-3   | SAM    | 04/23/25 17:47 |         | JSathvara | OK     |

## Prep Standard - Chemical Standard Summary

**Order ID :** Q1859

**Test :** Ammonia, Anions Group1, Hexavalent Chromium, Percent Solids, Trivalent Chromium

**Prepbatch ID :** PB167705, PB167731,

**Sequence ID/Qc Batch ID:** LB135527, LB135535, LB135559, LB135570,

**Standard ID :**

WP110335, WP110380, WP110381, WP110498, WP111249, WP111315, WP111316, WP111317, WP111318, WP111325, WP111385, WP111660, WP111745, WP112537, WP112611, WP112612, WP112613, WP112614, WP112686, WP112767, WP112787, WP112788, WP112789, WP112790, WP112791, WP112792, WP112793, WP112794, WP112796, WP112798, WP112800, WP112824, WP112825, WP112840, WP112841, WP112842,

**Chemical ID :**

E3917, M5673, M6041, M6096, M6121, M6126, W2202, W2511, W2647, W2651, W2652, W2666, W2700, W2708, W2858, W2979, W3112, W3113, W3132, W3140, W3152, W3163, W3174, W3180, W3195, W3196, W3197, W3205,

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>  | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|------------------|--------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 1597             | 0.04 N H2SO4 | <a href="#">WP110335</a> | 10/22/2024       | 04/22/2025             | Rubina Mughal      | None           | WETCHEM_FIPETTE_3<br>(WC) | Iwona Zarych<br>10/22/2024 |

**FROM** 1.00000ml of M5673 + 999.00000ml of W3112 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>      | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>       |
|------------------|------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------------|
| 126              | 5N sulfuric acid | <a href="#">WP110380</a> | 10/24/2024       | 04/24/2025             | Rubina Mughal      | None           | None             | Iwona Zarych<br>10/24/2024 |

**FROM** 140.00000ml of M5673 + 860.00000ml of W3112 = Final Quantity: 1.000 L

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>         | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|---------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1836             | HNO3 Hex-Chrome, 5M | <a href="#">WP110381</a> | 10/24/2024       | 04/24/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                     |                          |                  |                        |                    |                |                  | 10/24/2024           |

**FROM** 320.00000ml of M6096 + 680.00000ml of W3112 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                 | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------|
| 190              | HEX CHROME PHOSPHATE BUFFER | <a href="#">WP110498</a> | 10/31/2024       | 04/29/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WC SC-5) | None             | Iwona Zarych         |
|                  |                             |                          |                  |                        |                    |                           |                  | 10/31/2024           |

**FROM** 0.84500L of W3112 + 68.04000gram of W2708 + 87.09000gram of W2511 = Final Quantity: 1.000 L

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                 | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3354             | Hexchrome Cleaning Solution | <a href="#">WP111249</a> | 12/30/2024       | 05/13/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                             |                          |                  |                        |                    |                |                  | 01/02/2025           |

**FROM** 182.00000ml of M6121 + 727.00000ml of W3112 + 91.00000ml of M6126 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                           | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|---------------------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------|
| 1993             | HEXAVALENTCHROMIUM STOCK STD 1, 50PPM | <a href="#">WP111315</a> | 01/09/2025       | 07/09/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WC SC-5) | None             | Iwona Zarych         |
|                  |                                       |                          |                  |                        |                    |                           |                  | 01/09/2025           |

**FROM** 0.14140gram of W2651 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml



| <u>Recipe ID</u>                                                                              | <u>NAME</u>                           | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|-----------------------------------------------------------------------------------------------|---------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 1994                                                                                          | HEXAVALENTCHROMIUM STOCK STD 2, 50PPM | <a href="#">WP111316</a> | 01/09/2025       | 07/09/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_5 (WC<br>SC-5) | None             | Iwona Zarych<br><br>01/09/2025 |
| <b><u>FROM</u></b> 0.14140gram of W2652 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml |                                       |                          |                  |                        |                    |                                  |                  |                                |

| <u>Recipe ID</u>                                                                             | <u>NAME</u> | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|----------------------------------------------------------------------------------------------|-------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 1796                                                                                         | NaOH, 0.1N  | <a href="#">WP111317</a> | 01/09/2025       | 07/09/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_7 (WC<br>SC-6) | None             | Iwona Zarych<br><br>01/09/2025 |
| <b><u>FROM</u></b> 4.00000gram of W3113 + 996.00000ml of W3112 = Final Quantity: 1000.000 ml |             |                          |                  |                        |                    |                                  |                  |                                |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------|
| 1471             | NaOH Solution, 6N | <a href="#">WP111318</a> | 01/09/2025       | 07/09/2025             | Rubina Mughal      | WETCHEM_SCALE_7 (WC SC-6) | None             | Iwona Zarych         |
|                  |                   |                          |                  |                        |                    |                           |                  | 01/09/2025           |

**FROM** 240.00000gram of W3113 + 760.00000ml of W3112 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>   | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|---------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 1494             | BORATE BUFFER | <a href="#">WP111325</a> | 01/09/2025       | 07/09/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |               |                          |                  |                        |                    |                |                  | 01/09/2025           |

**FROM** 100.00000L of W3112 + 9.50000gram of W2700 + 88.00000ml of WP111317 = Final Quantity: 100.000 L



| <u>Recipe ID</u>                                                                                                  | <u>NAME</u>                | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>          | <u>PipetteID</u> | <u>Supervised By</u>       |
|-------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------|------------------|------------------------|--------------------|-------------------------|------------------|----------------------------|
| 290                                                                                                               | Phenol reagent for Ammonia | <a href="#">WP111385</a> | 01/13/2025       | 07/13/2025             | Rubina Mughal      | WETCHEM_SCALE_8 (WCS-7) | None             | Iwona Zarych<br>01/13/2025 |
| <b><u>FROM</u></b> 3.20000gram of W3113 + 8.30000gram of W2858 + 88.80000ml of W3112 = Final Quantity: 100.000 ml |                            |                          |                  |                        |                    |                         |                  |                            |

| <u>Recipe ID</u>                                                                                                     | <u>NAME</u>             | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u>       |
|----------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------------|
| 635                                                                                                                  | EDTA BUFFER FOR AMMONIA | <a href="#">WP111660</a> | 01/28/2025       | 07/28/2025             | Rubina Mughal      | WETCHEM_SCALE_8 (WC SC-7) | None             | Iwona Zarych<br>01/28/2025 |
| <b><u>FROM</u></b> 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml of W3112 = Final Quantity: 1000.000 ml |                         |                          |                  |                        |                    |                           |                  |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                     | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|---------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 289              | Sodium Hypochlorite for Ammonia | <a href="#">WP111745</a> | 02/03/2025       | 07/31/2025             | Rubina Mughal      | None           | None             | Iwona Zarych         |
|                  |                                 |                          |                  |                        |                    |                |                  | 02/03/2025           |

**FROM** 50.00000ml of W3112 + 50.00000ml of W3174 = Final Quantity: 100.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                          | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|--------------------------------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------|
| 740              | sodium nitroferrocyanide for ammonia | <a href="#">WP112537</a> | 03/28/2025       | 04/28/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WC SC-5) | None             | Iwona Zarych         |
|                  |                                      |                          |                  |                        |                    |                           |                  | 03/28/2025           |

**FROM** 0.05000gram of W2666 + 99.95000ml of W3112 = Final Quantity: 100.000 ml



| <u>Recipe ID</u>                                                                             | <u>NAME</u>                   | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|----------------------------------------------------------------------------------------------|-------------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 153                                                                                          | Ammonia Stock Std. (1000 ppm) | <a href="#">WP112611</a> | 04/07/2025       | 10/07/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_8 (WC<br>SC-7) | None             | Iwona Zarych<br><br>04/07/2025 |
| <b><u>FROM</u></b> 3.81900gram of W3196 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml |                               |                          |                  |                        |                    |                                  |                  |                                |

| <u>Recipe ID</u> | <u>NAME</u>                                                               | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|------------------|---------------------------------------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 1895             | Ammonia Stock Std,<br>1000PPM-SS                                          | <a href="#">WP112612</a> | 04/07/2025       | 10/07/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_8 (WC<br>SC-7) | None             | Iwona Zarych<br><br>04/07/2025 |
| <u>FROM</u>      | 3.81900gram of W3195 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml |                          |                  |                        |                    |                                  |                  |                                |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                     | <u>NAME</u>                        | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|--------------------------------------------------------------------------------------|------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 1322                                                                                 | Ammonia Intermediate Std,<br>50PPM | <a href="#">WP112613</a> | 04/07/2025       | 05/07/2025             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>04/07/2025 |
| <b>FROM</b> 95.00000ml of W3112 + 5.00000ml of WP112611 = Final Quantity: 100.000 ml |                                    |                          |                  |                        |                    |                |                               |                                |

| <u>Recipe ID</u>                                                                     | <u>NAME</u>                                      | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|--------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 1639                                                                                 | Ammonia Intermediate<br>Std-Second source, 50PPM | <a href="#">WP112614</a> | 04/07/2025       | 05/07/2025             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>04/07/2025 |
| <b>FROM</b> 95.00000ml of W3112 + 5.00000ml of WP112612 = Final Quantity: 100.000 ml |                                                  |                          |                  |                        |                    |                |                               |                                |



| <u>Recipe ID</u>                                                                                                    | <u>NAME</u>               | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                   | <u>PipetteID</u> | <u>Supervised By</u>           |
|---------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|------------------|------------------------|--------------------|----------------------------------|------------------|--------------------------------|
| 148                                                                                                                 | hexchrome digestion fluid | <a href="#">WP112686</a> | 04/14/2025       | 05/14/2025             | Rubina Mughal      | WETCHEM_S<br>CALE_8 (WC<br>SC-7) | None             | Iwona Zarych<br><br>04/14/2025 |
| <b><u>FROM</u></b> 120.00000gram of W3163 + 4.00000L of W3112 + 80.00000gram of W3113 = Final Quantity: 4000.000 ml |                           |                          |                  |                        |                    |                                  |                  |                                |

| <u>Recipe ID</u>                                                                          | <u>NAME</u>                       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>          | <u>PipetteID</u> | <u>Supervised By</u>       |
|-------------------------------------------------------------------------------------------|-----------------------------------|--------------------------|------------------|------------------------|--------------------|-------------------------|------------------|----------------------------|
| 114                                                                                       | hexavalent chromium color reagent | <a href="#">WP112767</a> | 04/18/2025       | 04/25/2025             | Rubina Mughal      | WETCHEM_SCALE_5 (WCS-5) | None             | Iwona Zarych<br>04/21/2025 |
| <b><u>FROM</u></b> 0.25000gram of W2979 + 50.00000ml of E3917 = Final Quantity: 50.000 ml |                                   |                          |                  |                        |                    |                         |                  |                            |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>         |
|------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|------------------------------|
| 2487             | Anions 300/9056 calibration standard 1 | <a href="#">WP112787</a> | 04/22/2025       | 04/23/2025             | Iwona Zarych       | None           | None             | Jignesh Parikh<br>04/22/2025 |

**FROM** 10.00000ml of W3112 = Final Quantity: 10.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>         |
|------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|------------------------------|
| 24               | Anions 300/9056 calibration standard 2 | <a href="#">WP112788</a> | 04/22/2025       | 04/23/2025             | Iwona Zarych       | None           | WETCHEM_FIPETTE_3<br>(WC) | Jignesh Parikh<br>04/22/2025 |

**FROM** 0.20000ml of W3180 + 9.80000ml of W3112 = Final Quantity: 10.000 ml

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>             |
|---------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|----------------------------------|
| 25                                                                              | Anions 300/9056 calibration standard 3 | <a href="#">WP112789</a> | 04/22/2025       | 04/23/2025             | Iwona Zarych       | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Jignesh Parikh<br><br>04/22/2025 |
| <b>FROM</b> 0.40000ml of W3180 + 9.60000ml of W3112 = Final Quantity: 10.000 ml |                                        |                          |                  |                        |                    |                |                               |                                  |

| <u>Recipe ID</u>                                                                | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>             |
|---------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|----------------------------------|
| 26                                                                              | Anions 300/9056 calibration standard 4 | <a href="#">WP112790</a> | 04/22/2025       | 04/23/2025             | Iwona Zarych       | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Jignesh Parikh<br><br>04/22/2025 |
| <b>FROM</b> 0.50000ml of W3180 + 9.50000ml of W3112 = Final Quantity: 10.000 ml |                                        |                          |                  |                        |                    |                |                               |                                  |



| <u>Recipe ID</u>                                                     | <u>NAME</u>                                | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>  | <u>Supervised By</u> |
|----------------------------------------------------------------------|--------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------|----------------------|
| 3680                                                                 | Anions 300/9056 calibration standard 5-CCV | <a href="#">WP112791</a> | 04/22/2025       | 04/23/2025             | Iwona Zarych       | None           | WETCHEM_PIPETTE_3 | Jignesh Parikh       |
| <u>FROM</u>                                                          |                                            | (WC)                     |                  |                        |                    |                |                   |                      |
| 45.00000ml of W3112 + 5.00000ml of W3180 = Final Quantity: 50.000 ml |                                            |                          |                  |                        |                    |                |                   |                      |

| <u>Recipe ID</u>                                                                       | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>         |
|----------------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|------------------------------|
| 3679                                                                                   | Anions 300/9056 calibration standard 6 | <a href="#">WP112792</a> | 04/22/2025       | 04/23/2025             | Iwona Zarych       | None           | WETCHEM_PIPETTE_3<br>(WC) | Jignesh Parikh<br>04/22/2025 |
| <b><u>FROM</u></b> 2.00000ml of W3180 + 8.00000ml of W3112 = Final Quantity: 10.000 ml |                                        |                          |                  |                        |                    |                |                           |                              |



| <u>Recipe ID</u>                                                                       | <u>NAME</u>                            | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>         |
|----------------------------------------------------------------------------------------|----------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|------------------------------|
| 3681                                                                                   | Anions 300/9056 calibration standard 7 | <a href="#">WP112793</a> | 04/22/2025       | 04/23/2025             | Iwona Zarych       | None           | WETCHEM_PIPETTE_3<br>(WC) | Jignesh Parikh<br>04/22/2025 |
| <b><u>FROM</u></b> 2.50000ml of W3180 + 7.50000ml of W3112 = Final Quantity: 10.000 ml |                                        |                          |                  |                        |                    |                |                           |                              |

| <u>Recipe ID</u>                                                                                                                                            | <u>NAME</u>  | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>            | <u>PipetteID</u> | <u>Supervised By</u>       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------|------------------|------------------------|--------------------|---------------------------|------------------|----------------------------|
| 83                                                                                                                                                          | TCLP Fluid#1 | <a href="#">WP112794</a> | 04/22/2025       | 10/22/2025             | Jignesh Parikh     | WETCHEM_SCALE_8 (WC SC-7) | None             | Iwona Zarych<br>04/22/2025 |
| <b>FROM</b> 114.00000ml of W3205 + 19834.56000ml of W3112 + 45.00000ml of W3112 + 5.00000ml of W3197 + 51.44000gram of W3113<br>= Final Quantity: 50.000 ml |              |                          |                  |                        |                    |                           |                  |                            |



| <u>Recipe ID</u>                                                                                                                                            | <u>NAME</u>                 | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|------------------------------|
| 3233                                                                                                                                                        | Anions 300/9056 ICV-LCS std | <a href="#">WP112794</a> | 04/22/2025       | 04/23/2025             | Iwona Zarych       | None           | WETCHEM_PIPETTE_3<br>(WC) | Jignesh Parikh<br>04/22/2025 |
| <b>FROM</b> 114.00000ml of W3205 + 19834.56000ml of W3112 + 45.00000ml of W3112 + 5.00000ml of W3197 + 51.44000gram of W3113<br>= Final Quantity: 50.000 ml |                             |                          |                  |                        |                    |                |                           |                              |

| <u>Recipe ID</u>                                                                                                     | <u>NAME</u>                    | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>          | <u>PipetteID</u> | <u>Supervised By</u>         |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|------------------|------------------------|--------------------|-------------------------|------------------|------------------------------|
| 4035                                                                                                                 | IC ELUENT CONCENTRATE FOR IC-1 | <a href="#">WP112796</a> | 04/22/2025       | 10/22/2025             | Iwona Zarych       | WETCHEM_SCALE_5 (WCS-5) | None             | Jignesh Parikh<br>04/22/2025 |
| <b><u>FROM</u></b> 2.10000gram of W2647 + 84.75000gram of W3163 + 913.15000ml of W3112 = Final Quantity: 1000.000 ml |                                |                          |                  |                        |                    |                         |                  |                              |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>        | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>   | <u>Supervised By</u>             |
|------------------|--------------------|--------------------------|------------------|------------------------|--------------------|----------------|--------------------|----------------------------------|
| 4036             | IC ELUENT FOR IC-1 | <a href="#">WP112798</a> | 04/22/2025       | 05/22/2025             | Iwona Zarych       | None           | Glass<br>Pipette-A | Jignesh Parikh<br><br>04/22/2025 |

**FROM** 1980.00000ml of W3112 + 20.00000ml of WP112796 = Final Quantity: 2000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>       | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>   | <u>Supervised By</u>             |
|------------------|-------------------|--------------------------|------------------|------------------------|--------------------|----------------|--------------------|----------------------------------|
| 4037             | IC H2SO4 FOR IC-1 | <a href="#">WP112800</a> | 04/22/2025       | 05/22/2025             | Iwona Zarych       | None           | Glass<br>Pipette-A | Jignesh Parikh<br><br>04/22/2025 |

**FROM** 5.60000ml of M6041 + 994.40000ml of W3112 = Final Quantity: 1000.000 ml

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                 | <u>NAME</u>                                | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>             |
|----------------------------------------------------------------------------------|--------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|----------------------------------|
| 3680                                                                             | Anions 300/9056 calibration standard 5-CCV | <a href="#">WP112824</a> | 04/23/2025       | 04/24/2025             | Iwona Zarych       | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Jignesh Parikh<br><br>04/23/2025 |
| <b>FROM</b> 45.00000ml of W3112 + 5.00000ml of W3180 = Final Quantity: 50.000 ml |                                            |                          |                  |                        |                    |                |                               |                                  |

| <u>Recipe ID</u>                                                                 | <u>NAME</u>                 | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>             |
|----------------------------------------------------------------------------------|-----------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|----------------------------------|
| 3233                                                                             | Anions 300/9056 ICV-LCS std | <a href="#">WP112825</a> | 04/23/2025       | 04/24/2025             | Iwona Zarych       | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Jignesh Parikh<br><br>04/23/2025 |
| <b>FROM</b> 45.00000ml of W3112 + 5.00000ml of W3197 = Final Quantity: 50.000 ml |                             |                          |                  |                        |                    |                |                               |                                  |

## Wet Chemistry STANDARD PREPARATION LOG

| <u>Recipe ID</u>                                                                    | <u>NAME</u>                      | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|-------------------------------------------------------------------------------------|----------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 275                                                                                 | Ammonia Calibration Std. (2 ppm) | <a href="#">WP112840</a> | 04/25/2025       | 04/26/2025             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>04/25/2025 |
| <b>FROM</b> 48.00000ml of W3112 + 2.00000ml of WP112613 = Final Quantity: 50.000 ml |                                  |                          |                  |                        |                    |                |                               |                                |

| <u>Recipe ID</u>                                                                    | <u>NAME</u>              | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>              | <u>Supervised By</u>           |
|-------------------------------------------------------------------------------------|--------------------------|--------------------------|------------------|------------------------|--------------------|----------------|-------------------------------|--------------------------------|
| 285                                                                                 | Ammonia CCV Std. (1 ppm) | <a href="#">WP112841</a> | 04/25/2025       | 04/26/2025             | Rubina Mughal      | None           | WETCHEM_F<br>IPETTE_3<br>(WC) | Iwona Zarych<br><br>04/25/2025 |
| <b>FROM</b> 49.00000ml of W3112 + 1.00000ml of WP112613 = Final Quantity: 50.000 ml |                          |                          |                  |                        |                    |                |                               |                                |



| <u>Recipe ID</u>                                                                           | <u>NAME</u>              | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u>          | <u>Supervised By</u>       |
|--------------------------------------------------------------------------------------------|--------------------------|--------------------------|------------------|------------------------|--------------------|----------------|---------------------------|----------------------------|
| 286                                                                                        | Ammonia ICV Std. (1 ppm) | <a href="#">WP112842</a> | 04/25/2025       | 04/26/2025             | Rubina Mughal      | None           | WETCHEM_PIPETTE_3<br>(WC) | Iwona Zarych<br>04/25/2025 |
| <b><u>FROM</u></b> 49.00000ml of W3112 + 1.00000ml of WP112614 = Final Quantity: 50.000 ml |                          |                          |                  |                        |                    |                |                           |                            |

## CHEMICAL RECEIPT LOG BOOK

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) | 24H2762008 | 10/03/2025      | 04/03/2025 / Rajesh     | 03/31/2025 / Rajesh         | E3917          |

| Supplier         | ItemCode / ItemName                                     | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L) | 23D2462010 | 03/20/2028      | 09/21/2023 / mohan      | 09/05/2023 / mohan          | M5673          |

| Supplier         | ItemCode / ItemName                                     | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L) | 23D2462010 | 03/20/2028      | 08/16/2024 / mohan      | 08/16/2024 / mohan          | M6041          |

| Supplier         | ItemCode / ItemName                                   | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L) | 24D1062002 | 03/25/2029      | 10/22/2024 / Janvi      | 09/21/2024 / Janvi          | M6096          |

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L) | 0000275677 | 05/13/2025      | 11/13/2024 / Eman       | 10/13/2024 / Eman           | M6121          |

| Supplier         | ItemCode / ItemName                                   | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L) | 24D1062002 | 06/03/2025      | 12/03/2024 / Janvi      | 11/12/2024 / Janvi          | M6126          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName                        | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AA14125-36 / LEAD (II) CHROMATE, ACS, 500G | U19B018 | 01/23/2027      | 01/23/2017 / apatel     | 01/23/2017 / apatel         | W2202          |

| Supplier                    | ItemCode / ItemName                               | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J3252-1 / POTAS PHOSPHATE, DIBASIC PWD, ACS, 500G | 0000207436 | 04/29/2025      | 05/22/2019 / AMANDEEP   | 03/21/2019 / apatel         | W2511          |

| Supplier                    | ItemCode / ItemName                           | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-----------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J3506-5 / SODIUM BICARBONATE, PWD, ACS, 2.5KG | 0000240594 | 06/03/2026      | 02/24/2020 / AMANDEEP   | 01/20/2020 / apatel         | W2647          |

| Supplier                    | ItemCode / ItemName                          | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | AA13450-36 / Potassium Dichromate, 500g(NEW) | T15F019 | 01/24/2030      | 01/24/2020 / apatel     | 01/24/2020 / apatel         | W2651          |

| Supplier                    | ItemCode / ItemName                                | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | P188-500 / Potassium Dichromate, 500g(new-2nd lot) | 194664 | 01/24/2030      | 01/24/2020 / apatel     | 01/24/2020 / apatel         | W2652          |

| Supplier                    | ItemCode / ItemName                   | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 87683 / Sodium Nitroferrocyanide 250g | W12F013 | 02/10/2030      | 02/10/2020 / apatel     | 02/10/2020 / apatel         | W2666          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName              | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J3568-1 / Sodium Borate, 500 gms | 2019111354 | 04/23/2025      | 04/23/2020 / apatel     | 03/11/2020 / apatel         | W2700          |

| Supplier                    | ItemCode / ItemName                               | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J3246-1 / POTAS PHOSPHATE, MONO, CRYST, ACS, 500G | 99/2019-20 | 05/05/2025      | 05/05/2020 / apatel     | 05/05/2020 / apatel         | W2708          |

| Supplier                    | ItemCode / ItemName          | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | P1060-10 / PHENOL, ACS, 500G | M13H048 | 01/07/2026      | 07/07/2021 / apatel     | 07/07/2021 / apatel         | W2858          |

| Supplier                    | ItemCode / ItemName           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 31390 / 1,5-Diphenylcarbazine | MKCR6636 | 12/09/2027      | 12/09/2022 / lwona      | 12/09/2022 / lwona          | W2979          |

| Supplier         | ItemCode / ItemName | Lot #               | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------|---------------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | DIW / DI Water      | Daily Lab-Certified | 07/03/2029      | 07/03/2024 / lwona      | 07/03/2024 / lwona          | W3112          |

| Supplier                    | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC19510-7 / Sodium Hydroxide Pellets 12 Kg | 23B1556310 | 12/31/2025      | 07/08/2024 / lwona      | 07/08/2024 / lwona          | W3113          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName                             | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-------------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC05050-1 / EDTA, disodium salt, dihydrate 1 lb | 2ND0156 | 07/10/2026      | 07/26/2024 / lwona      | 07/26/2024 / lwona          | W3132          |

| Supplier                    | ItemCode / ItemName                         | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 140444 / TEST PAPERS,PH 0-14,.5 SENSI,100PK | 10D0142 | 09/17/2029      | 09/17/2024 / lwona      | 09/17/2024 / lwona          | W3140          |

| Supplier                    | ItemCode / ItemName                                  | Lot #           | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|------------------------------------------------------|-----------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 01237-10KG / Megnasium Chloride Hexahydrate ACS 10KG | 002126-2019-201 | 11/25/2029      | 11/25/2024 / lwona      | 11/25/2024 / lwona          | W3152          |

| Supplier                    | ItemCode / ItemName                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | EM-SX0395-3 / SODIUM CARBONATE ANHYDR 2.5KG | 24E3156178 | 09/30/2027      | 12/10/2024 / lwona      | 12/10/2024 / lwona          | W3163          |

| Supplier                    | ItemCode / ItemName                  | Lot #   | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------|---------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J9416-1 / Sodium Hypochlorite 500 ml | 2501J28 | 07/31/2025      | 01/24/2025 / lwona      | 01/24/2025 / lwona          | W3174          |

| Supplier           | ItemCode / ItemName                                  | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|------------------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | 300-CAL-A-500ML / 300.0 Calibration Standard, 500 ml | V2-MEB742616 | 02/19/2026      | 02/19/2025 / lwona      | 01/27/2025 / lwona          | W3180          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName                    | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J0660-1 / AMMONIUM CHLORIDE, ACS, 500G | 24L0356561 | 08/31/2027      | 03/19/2025 / lwona      | 03/19/2025 / lwona          | W3195          |

| Supplier                    | ItemCode / ItemName                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|----------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | J0660-1 / AMMONIUM CHLORIDE, ACS, 500G | MKCV1009 | 09/30/2026      | 03/19/2025 / lwona      | 03/19/2025 / lwona          | W3196          |

| Supplier           | ItemCode / ItemName                                  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | 300-CAL-A-500ML / 300.0 Calibration Standard, 500 ml | 040525 | 04/05/2027      | 04/08/2025 / lwona      | 04/08/2025 / lwona          | W3197          |

| Supplier                    | ItemCode / ItemName                         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|---------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC01050-3 / ACETIC ACID, GLACIAL, ACS, 2.5L | 540404 | 04/30/2026      | 04/22/2025 / jignesh    | 04/17/2025 / jignesh        | W3205          |

# Certificate of analysis

Product No. 14125  
Product: Lead(II) chromate, ACS, 98%  
Lot No.: U19B018

| Test             | Limits     | Results  |
|------------------|------------|----------|
| Assay            | 98.0 % min | 99.3 %   |
| Soluble matter   | 0.15 % max | < 0.02 % |
| Carbon compounds | 0.01 % max | < 0.01 % |

Traceable to NIST? Yes

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**ThermoFisher**  
S C I E N T I F I C

Product No.: 13450  
Product: Potassium dichromate, ACS, 99.0% min  
Lot No.: T15F019

| Test             | Limits              | Results             |
|------------------|---------------------|---------------------|
| Appearance       | Orange-red crystals | Orange-red crystals |
| Identification   | To Pass             | Passes              |
| Purity           | 99.0 % min          | 99.67 %             |
| Insoluble matter | 0.005 % max         | 0.004 %             |
| Loss on drying   | 0.05 % max          | 0.03 %              |
| Chloride         | 0.001 % max         | < 0.001 %           |
| Sulfate          | 0.005 % max         | < 0.005 %           |
| Iron             | 0.001 % max         | < 0.001 %           |
| Calcium          | 0.003 % max         | 0.0012 %            |
| Sodium           | 0.02 % max          | 0.0047 %            |

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Sodium Bicarbonate, Powder  
BAKER ANALYZED® A.C.S. Reagent

(sodium hydrogen carbonate)



Material No.: 3506-05  
Batch No.: 0000240594  
Manufactured Date: 2019/06/05  
Retest Date: 2026/06/03  
Revision No: 1

## Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

| Test                                          | Specification  | Result  |
|-----------------------------------------------|----------------|---------|
| Assay (NaHCO <sub>3</sub> ) (dried basis)     | 99.7 – 100.3 % | 100.1   |
| Insoluble Matter                              | <= 0.015 %     | < 0.002 |
| Chloride (Cl)                                 | <= 0.003 %     | 0.003   |
| Phosphate (PO <sub>4</sub> )                  | <= 0.001 %     | 0.001   |
| Sulfur Compounds (as SO <sub>4</sub> )        | <= 0.003 %     | 0.003   |
| Calcium (Ca)                                  | <= 0.02 %      | 0.02    |
| Trace Impurities – Iron (Fe)                  | <= 0.001 %     | 0.001   |
| Magnesium (Mg)                                | <= 0.005 %     | 0.005   |
| Potassium (K)                                 | <= 0.005 %     | 0.005   |
| Ammonium (NH <sub>4</sub> )                   | <= 5 ppm       | 5       |
| Trace Impurities – ACS – Heavy Metals (as Pb) | <= 5 ppm       | 5       |

For Laboratory, Research or Manufacturing Use  
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US  
Packaging Site: Paris Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Potassium Phosphate, Dibasic, Powder  
BAKER ANALYZED® A.C.S. Reagent

(dipotassium hydrogen phosphate)



Material No.: 3252-01  
Batch No.: 0000207436  
Manufactured Date: 2018/05/01  
Retest Date: 2025/04/29  
Revision No: 1

## Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

| Test                                          | Specification            | Result  |
|-----------------------------------------------|--------------------------|---------|
| Assay ( $K_2HPO_4$ ) (by acidimetry)          | $\geq 98.0 \%$           | 99.2    |
| Insoluble Matter                              | $\leq 0.01 \%$           | < 0.01  |
| Loss on Drying at 105°C                       | $\leq 1.0 \%$            | < 1.0   |
| pH of 5% Solution at 25°C                     | 8.5 – 9.6                | 9.1     |
| Chloride (Cl)                                 | $\leq 0.003 \%$          | < 0.003 |
| Fluoride (F)                                  | $\leq 0.001 \%$          | < 0.001 |
| Nitrogen Compounds (as N)                     | $\leq 0.001 \%$          | < 0.001 |
| Sulfate ( $SO_4$ )                            | $\leq 0.005 \%$          | < 0.005 |
| Trace Impurities – Iron (Fe)                  | $\leq 0.001 \%$          | < 0.001 |
| Sodium (Na)                                   | $\leq 0.05 \%$           | < 0.05  |
| Trace Impurities – Arsenic (As)               | $\leq 1.000 \text{ ppm}$ | < 1.000 |
| Trace Impurities – ACS – Heavy Metals (as Pb) | $\leq 5 \text{ ppm}$     | < 5     |
| Trace Impurities – Lead (Pb)                  | $\leq 5.000 \text{ ppm}$ | < 5.000 |
| Color (APHA), For Information Only            |                          | 5       |

For Laboratory, Research or Manufacturing Use  
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US  
Packaging Site: Paris Mfg Ctr & DC



Phillipsburg, NJ 9001:2015, FSC22000  
Paris, KY 9001:2008  
Mexico City, Mexico 9001:2008  
Gliwice, Poland 9001:2015, 13485:2012  
Selangor, Malaysia 9001:2008  
Dehradun, India, 9001:2008, 14001:2004, 13485:2003  
Mumbai, India, 9001:2015, 17025:2005  
Panoli, India 9001:2015

*James Ethier*  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

W2858 Received by AP on 07/07/2021

Product No.: 33213  
Product: Phenol, ACS, 99+%, stab.  
Lot No.: M13H048

| Test                      | Limits       | Results  |
|---------------------------|--------------|----------|
| Assay                     | 99.0 % min   | 99.8 %   |
| Freezing point            | 40.5°C min   | 40.5 °C  |
| Clarity of solution       | To pass test | Passes   |
| Residue after evaporation | 0.05 % max   | < 0.05 % |
| Water                     | 0.5 % max    | 0.2 %    |

Retest date: January 7, 2026

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W2666 Recived on 02/10/2020 by AP

Product No.: 87683

Product: Sodium pentacyanonitrosylferrate(III) dihydrate, ACS,  
99.0-102.0%

Lot No.: W12F013

| Test                  | Limits         | Results      |
|-----------------------|----------------|--------------|
| Assay                 | 99.0 - 102.0 % | 99.67 %      |
| Insoluble             | 0.01 % max     | 0.0079 %     |
| Chloride              | 0.02 % max     | Not detected |
| Sulfate               | To pass test   | Passes test  |
| Aqueous solubility    | To pass test   | Passes test  |
| Limit on Ferricyanide | To pass test   | Passes test  |
| Limit on Ferrocyanide | To pass test   | Passes test  |

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# Certificate Of Analysis



Date of Release: 11/14/2019

W2700 Recived by AP on 3/11/2020

Name: **Sodium Borate, Decahydrate**  
ACS

Item No: **SX0355 All Sizes**

Lot / Batch No: **2019111354**

Country of Origin: **India**

| Item                                                                       | Specifications | Analysis    |
|----------------------------------------------------------------------------|----------------|-------------|
| Assay (Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> • 10H <sub>2</sub> O) | 99.5 - 105.0%  | 101.7%      |
| Calcium (Ca)                                                               | 0.005% max.    | 0.003%      |
| Chloride (Cl)                                                              | 0.001% max.    | <0.001%     |
| Color                                                                      | White          | Passes Test |
| Form                                                                       | Crystals       | Passes Test |
| Heavy Metals (as Pb)                                                       | 0.001% max.    | <0.001%     |
| Insoluble Matter                                                           | 0.005% max.    | 0.002%      |
| Iron (Fe)                                                                  | 5 ppm max.     | <5 ppm      |
| pH of a 0.01 M solution at 25C                                             | 9.15 - 9.20    | 9.17        |
| Phosphate (PO <sub>4</sub> )                                               | 0.001% max.    | <0.001%     |
| Sulfate (SO <sub>4</sub> )                                                 | 0.005% max.    | <0.005%     |

Joe Schoellkopf

-----  
Quality Control Manager

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EMD Millipore Corporation

400 Summit Drive  
Burlington, MA 01803  
U.S.A.

Form number: 00005624CA, Rev. 2.0



## Certificate of Analysis

1 Reagent Lane  
Fair Lawn, NJ 07410  
201.796.7100 tel  
201.796.1329 fax

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Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

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|                   |                                                                                                                                                                                                   |                             |            |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------|
| Catalog Number    | P188                                                                                                                                                                                              | Quality Test / Release Date | 08/12/2019 |
| Lot Number        | 194664                                                                                                                                                                                            |                             |            |
| Description       | POTASSIUM DICHROMATE, A.C.S.                                                                                                                                                                      |                             |            |
| Country of Origin | United States                                                                                                                                                                                     | Suggested Retest Date       | Aug/2024   |
| Chemical Origin   | Inorganic-non animal                                                                                                                                                                              |                             |            |
| BSE/TSE Comment   | No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product. |                             |            |
| Chemical Comment  |                                                                                                                                                                                                   |                             |            |

| N/A                    |           |                |                           |
|------------------------|-----------|----------------|---------------------------|
| Result Name            | Units     | Specifications | Test Value                |
| APPEARANCE             |           | REPORT         | Fine, orange-red crystals |
| ASSAY                  | %         | >= 99          | 99.2                      |
| CALCIUM                | %         | <= 0.003       | <0.003                    |
| CHLORIDE               | %         | <= 0.001       | <0.001                    |
| LOSS ON DRYING @ 105 C | %         | <= 0.05        | <0.05                     |
| SULFATE (SO4)          | %         | <= 0.005       | <0.005                    |
| INSOLUBLE MATTER       | %         | <= 0.005       | 0.003                     |
| IRON (Fe)              | %         | <= 0.001       | <0.001                    |
| SODIUM (Na)            | %         | <= 0.02        | <0.02                     |
| IDENTIFICATION         | PASS/FAIL | = PASS TEST    | PASS TEST                 |

*Jerusa Bailey-Wyche*

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above. If there are any questions with this certificate, please call at (800) 227-6701.

\*Based on suggested storage condition.

Acetone

BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

## Certificate of Analysis

| Test                                                                    | Specification | Result      |
|-------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water) | >= 99.4 %     | 100.0 %     |
| Color (APHA)                                                            | <= 10         | 5           |
| Residue after Evaporation                                               | <= 1.0 ppm    | 0.0 ppm     |
| Substances Reducing Permanganate                                        | Passes Test   | Passes Test |
| Titration Acid (μeq/g)                                                  | <= 0.3        | 0.2         |
| Titration Base (μeq/g)                                                  | <= 0.6        | <0.1        |
| Water (H <sub>2</sub> O)                                                | <= 0.5 %      | <0.1 %      |
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)    | <= 5          | 1           |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)    | <= 10         | 1           |

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 03/31/25

E3917

Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

Sulfuric Acid  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis  
Low Selenium

 **avantor**™



Material No.: 9673-33  
Batch No.: 23D2462010  
Manufactured Date: 2023-03-22  
Retest Date: 2028-03-20  
Revision No.: 0

## Certificate of Analysis

| Test                                                         | Specification | Result      |
|--------------------------------------------------------------|---------------|-------------|
| ACS – Assay (H <sub>2</sub> SO <sub>4</sub> )                | 95.0 – 98.0 % | 96.1 %      |
| Appearance                                                   | Passes Test   | Passes Test |
| ACS – Color (APHA)                                           | ≤ 10          | 5           |
| ACS – Residue after Ignition                                 | ≤ 3 ppm       | < 1 ppm     |
| ACS – Substances Reducing Permanganate (as SO <sub>2</sub> ) | ≤ 2 ppm       | < 2 ppm     |
| Ammonium (NH <sub>4</sub> )                                  | ≤ 1 ppm       | 1 ppm       |
| Chloride (Cl)                                                | ≤ 0.1 ppm     | < 0.1 ppm   |
| Nitrate (NO <sub>3</sub> )                                   | ≤ 0.2 ppm     | < 0.1 ppm   |
| Phosphate (PO <sub>4</sub> )                                 | ≤ 0.5 ppm     | < 0.1 ppm   |
| Trace Impurities – Aluminum (Al)                             | ≤ 30.0 ppb    | < 5.0 ppb   |
| Arsenic and Antimony (as As)                                 | ≤ 4.0 ppb     | < 2.0 ppb   |
| Trace Impurities – Boron (B)                                 | ≤ 10.0 ppb    | 8.5 ppb     |
| Trace Impurities – Cadmium (Cd)                              | ≤ 2.0 ppb     | < 0.3 ppb   |
| Trace Impurities – Chromium (Cr)                             | ≤ 6.0 ppb     | < 0.4 ppb   |
| Trace Impurities – Cobalt (Co)                               | ≤ 0.5 ppb     | < 0.3 ppb   |
| Trace Impurities – Copper (Cu)                               | ≤ 1.0 ppb     | < 0.1 ppb   |
| Trace Impurities – Gold (Au)                                 | ≤ 10.0 ppb    | 0.5 ppb     |
| Heavy Metals (as Pb)                                         | ≤ 500.0 ppb   | < 100.0 ppb |
| Trace Impurities – Iron (Fe)                                 | ≤ 50.0 ppb    | 1.3 ppb     |
| Trace Impurities – Lead (Pb)                                 | ≤ 0.5 ppb     | < 0.5 ppb   |
| Trace Impurities – Magnesium (Mg)                            | ≤ 7.0 ppb     | 0.8 ppb     |
| Trace Impurities – Manganese (Mn)                            | ≤ 1.0 ppb     | < 0.4 ppb   |
| Trace Impurities – Mercury (Hg)                              | ≤ 0.5 ppb     | < 0.1 ppb   |
| Trace Impurities – Nickel (Ni)                               | ≤ 2.0 ppb     | 0.3 ppb     |
| Trace Impurities – Potassium (K)                             | ≤ 500.0 ppb   | < 2.0 ppb   |
| Trace Impurities – Selenium (Se)                             | ≤ 50.0 ppb    | < 0.1 ppb   |
| Trace Impurities – Silicon (Si)                              | ≤ 100.0 ppb   | 31.5 ppb    |
| Trace Impurities – Silver (Ag)                               | ≤ 1.0 ppb     | < 0.3 ppb   |

>>> Continued on page 2 >>>

Sulfuric Acid  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis  
Low Selenium

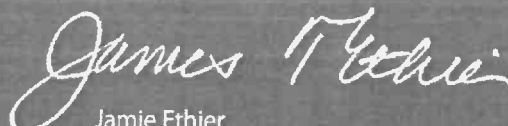


Material No.: 9673-33  
Batch No.: 23D2462010

| Test                              | Specification    | Result    |
|-----------------------------------|------------------|-----------|
| Trace Impurities – Sodium (Na)    | $\leq 500.0$ ppb | 5.4 ppb   |
| Trace Impurities – Strontium (Sr) | $\leq 5.0$ ppb   | < 0.2 ppb |
| Trace Impurities – Tin (Sn)       | $\leq 5.0$ ppb   | < 0.8 ppb |
| Trace Impurities – Zinc (Zn)      | $\leq 5.0$ ppb   | 0.4 ppb   |

For Laboratory, Research, or Manufacturing Use

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality

Sulfuric Acid  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis  
Low Selenium

avantor™



M 6041-4b  
MS

Material No.: 9673-33  
Batch No.: 23D2462010  
Manufactured Date: 2023-03-22  
Retest Date: 2028-03-20  
Revision No.: 0

## Certificate of Analysis

| Test                                                         | Specification | Result      |
|--------------------------------------------------------------|---------------|-------------|
| ACS – Assay (H <sub>2</sub> SO <sub>4</sub> )                | 95.0 – 98.0 % | 96.1 %      |
| Appearance                                                   | Passes Test   | Passes Test |
| ACS – Color (APHA)                                           | ≤ 10          | 5           |
| ACS – Residue after Ignition                                 | ≤ 3 ppm       | < 1 ppm     |
| ACS – Substances Reducing Permanganate (as SO <sub>2</sub> ) | ≤ 2 ppm       | < 2 ppm     |
| Ammonium (NH <sub>4</sub> )                                  | ≤ 1 ppm       | 1 ppm       |
| Chloride (Cl)                                                | ≤ 0.1 ppm     | < 0.1 ppm   |
| Nitrate (NO <sub>3</sub> )                                   | ≤ 0.2 ppm     | < 0.1 ppm   |
| Phosphate (PO <sub>4</sub> )                                 | ≤ 0.5 ppm     | < 0.1 ppm   |
| Trace Impurities – Aluminum (Al)                             | ≤ 30.0 ppb    | < 5.0 ppb   |
| Arsenic and Antimony (as As)                                 | ≤ 4.0 ppb     | < 2.0 ppb   |
| Trace Impurities – Boron (B)                                 | ≤ 10.0 ppb    | 8.5 ppb     |
| Trace Impurities – Cadmium (Cd)                              | ≤ 2.0 ppb     | < 0.3 ppb   |
| Trace Impurities – Chromium (Cr)                             | ≤ 6.0 ppb     | < 0.4 ppb   |
| Trace Impurities – Cobalt (Co)                               | ≤ 0.5 ppb     | < 0.3 ppb   |
| Trace Impurities – Copper (Cu)                               | ≤ 1.0 ppb     | < 0.1 ppb   |
| Trace Impurities – Gold (Au)                                 | ≤ 10.0 ppb    | 0.5 ppb     |
| Heavy Metals (as Pb)                                         | ≤ 500.0 ppb   | < 100.0 ppb |
| Trace Impurities – Iron (Fe)                                 | ≤ 50.0 ppb    | 1.3 ppb     |
| Trace Impurities – Lead (Pb)                                 | ≤ 0.5 ppb     | < 0.5 ppb   |
| Trace Impurities – Magnesium (Mg)                            | ≤ 7.0 ppb     | 0.8 ppb     |
| Trace Impurities – Manganese (Mn)                            | ≤ 1.0 ppb     | < 0.4 ppb   |
| Trace Impurities – Mercury (Hg)                              | ≤ 0.5 ppb     | < 0.1 ppb   |
| Trace Impurities – Nickel (Ni)                               | ≤ 2.0 ppb     | 0.3 ppb     |
| Trace Impurities – Potassium (K)                             | ≤ 500.0 ppb   | < 2.0 ppb   |
| Trace Impurities – Selenium (Se)                             | ≤ 50.0 ppb    | < 0.1 ppb   |
| Trace Impurities – Silicon (Si)                              | ≤ 100.0 ppb   | 31.5 ppb    |
| Trace Impurities – Silver (Ag)                               | ≤ 1.0 ppb     | < 0.3 ppb   |

>>> Continued on page 2 >>>

Sulfuric Acid  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis  
Low Selenium

 **avantor™**

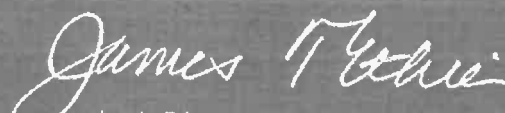


Material No.: 9673-33  
Batch No.: 23D2462010

| Test                              | Specification    | Result    |
|-----------------------------------|------------------|-----------|
| Trace Impurities – Sodium (Na)    | $\leq 500.0$ ppb | 5.4 ppb   |
| Trace Impurities – Strontium (Sr) | $\leq 5.0$ ppb   | < 0.2 ppb |
| Trace Impurities – Tin (Sn)       | $\leq 5.0$ ppb   | < 0.8 ppb |
| Trace Impurities – Zinc (Zn)      | $\leq 5.0$ ppb   | 0.4 ppb   |

For Laboratory, Research, or Manufacturing Use

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality

Nitric Acid 69%  
CMOS

avantor™



M6096  
M6097  
M6098  
M6099  
M6100

Mutdig  
9/21/24

Material No.: 9606-03  
Batch No.: 24D1062002  
Manufactured Date: 2024-03-26  
Retest Date: 2029-03-25  
Revision No.: 0

## Certificate of Analysis

| Test                              | Specification | Result      |
|-----------------------------------|---------------|-------------|
| Assay (HNO <sub>3</sub> )         | 69.0 – 70.0 % | 69.7 %      |
| Appearance                        | Passes Test   | Passes Test |
| Color (APHA)                      | ≤ 10          | 5           |
| Residue after Ignition            | ≤ 2 ppm       | 1 ppm       |
| Chloride (Cl)                     | ≤ 0.08 ppm    | < 0.03 ppm  |
| Phosphate (PO <sub>4</sub> )      | ≤ 0.10 ppm    | < 0.03 ppm  |
| Sulfate (SO <sub>4</sub> )        | ≤ 0.2 ppm     | < 0.2 ppm   |
| Trace Impurities – Aluminum (Al)  | ≤ 40.0 ppb    | < 1.0 ppb   |
| Arsenic and Antimony (as As)      | ≤ 5.0 ppb     | < 2.0 ppb   |
| Trace Impurities – Barium (Ba)    | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Beryllium (Be) | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Bismuth (Bi)   | ≤ 20.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Boron (B)      | ≤ 10.0 ppb    | < 5.0 ppb   |
| Trace Impurities – Cadmium (Cd)   | ≤ 50 ppb      | < 1 ppb     |
| Trace Impurities – Calcium (Ca)   | ≤ 50.0 ppb    | 2.3 ppb     |
| Trace Impurities – Chromium (Cr)  | ≤ 30.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Cobalt (Co)    | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Copper (Cu)    | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Gallium (Ga)   | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Germanium (Ge) | ≤ 20 ppb      | < 10 ppb    |
| Trace Impurities – Gold (Au)      | ≤ 20 ppb      | < 5 ppb     |
| Heavy Metals (as Pb)              | ≤ 100 ppb     | 100 ppb     |
| Trace Impurities – Iron (Fe)      | ≤ 40.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Lead (Pb)      | ≤ 20.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Lithium (Li)   | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Magnesium (Mg) | ≤ 20 ppb      | < 1 ppb     |
| Trace Impurities – Manganese (Mn) | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Nickel (Ni)    | ≤ 20.0 ppb    | < 5.0 ppb   |

>>> Continued on page 2 >>>

Nitric Acid 69%  
CMOS



Material No.: 9606-03  
Batch No.: 24D1062002

| Test                                | Specification | Result     |
|-------------------------------------|---------------|------------|
| Trace Impurities – Niobium (Nb)     | ≤ 50.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Potassium (K)    | ≤ 50 ppb      | 16 ppb     |
| Trace Impurities – Silicon (Si)     | ≤ 50 ppb      | < 10 ppb   |
| Trace Impurities – Silver (Ag)      | ≤ 20.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Sodium (Na)      | ≤ 150.0 ppb   | < 5.0 ppb  |
| Trace Impurities – Strontium (Sr)   | ≤ 30.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Tantalum (Ta)    | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Thallium (Tl)    | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Tin (Sn)         | ≤ 20.0 ppb    | < 10.0 ppb |
| Trace Impurities – Titanium (Ti)    | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Vanadium (V)     | ≤ 10.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Zinc (Zn)        | ≤ 20.0 ppb    | < 1.0 ppb  |
| Trace Impurities – Zirconium (Zr)   | ≤ 10.0 ppb    | < 1.0 ppb  |
| Particle Count – 0.5 µm and greater | ≤ 60 par/ml   | 10 par/ml  |
| Particle Count – 1.0 µm and greater | ≤ 10 par/ml   | 3 par/ml   |

>>> Continued on page 3 >>>

Nitric Acid 69%  
CMOS



Material No.: 9606-03  
Batch No.: 24D1062002

| Test | Specification | Result |
|------|---------------|--------|
|------|---------------|--------|

For Microelectronic Use  
Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

*J. Croak*  
Jamie Croak  
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5-38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis

avantor™



R → 16/13/24  
Met dig

M 6121

Material No.: 9530-33  
Batch No.: 0000275677  
Manufactured Date: 2020/12/16  
Retest Date: 2025/12/15  
Revision No: 1

## Certificate of Analysis

| Test                                      | Specification | Result  |
|-------------------------------------------|---------------|---------|
| ACS - Assay (as HCl) (by acid-base titrn) | 36.5 - 38.0 % | 37.6    |
| ACS - Color (APHA)                        | <= 10         | 5       |
| ACS - Residue after Ignition              | <= 3 ppm      | 1       |
| ACS - Specific Gravity at 60°/60°F        | 1.185 - 1.192 | 1.190   |
| ACS - Bromide (Br)                        | <= 0.005 %    | < 0.005 |
| ACS - Extractable Organic Substances      | <= 5 ppm      | 1       |
| ACS - Free Chlorine (as Cl <sub>2</sub> ) | <= 0.5 ppm    | < 0.5   |
| Phosphate (PO <sub>4</sub> )              | <= 0.05 ppm   | < 0.03  |
| Sulfate (SO <sub>4</sub> )                | <= 0.5 ppm    | < 0.3   |
| Sulfite (SO <sub>3</sub> )                | <= 0.8 ppm    | 0.3     |
| Ammonium (NH <sub>4</sub> )               | <= 3 ppm      | < 1     |
| Trace Impurities - Arsenic (As)           | <= 0.010 ppm  | < 0.003 |
| Trace Impurities - Aluminum (Al)          | <= 10.0 ppb   | < 0.2   |
| Arsenic and Antimony (as As)              | <= 5 ppb      | < 3     |
| Trace Impurities - Barium (Ba)            | <= 1.0 ppb    | < 0.2   |
| Trace Impurities - Beryllium (Be)         | <= 1.0 ppb    | < 0.2   |
| Trace Impurities - Bismuth (Bi)           | <= 10.0 ppb   | < 1.0   |
| Trace Impurities - Boron (B)              | <= 20.0 ppb   | < 5.0   |
| Trace Impurities - Cadmium (Cd)           | <= 1.0 ppb    | < 0.3   |
| Trace Impurities - Calcium (Ca)           | <= 50.0 ppb   | 29.7    |
| Trace Impurities - Chromium (Cr)          | <= 1.0 ppb    | < 0.4   |
| Trace Impurities - Cobalt (Co)            | <= 1.0 ppb    | < 0.3   |
| Trace Impurities - Copper (Cu)            | <= 1.0 ppb    | < 0.1   |
| Trace Impurities - Gallium (Ga)           | <= 1.0 ppb    | < 0.2   |

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33  
Batch No.: 0000275677

| Test                                                   | Specification | Result |
|--------------------------------------------------------|---------------|--------|
| Trace Impurities – Germanium (Ge)                      | <= 3.0 ppb    | < 2.0  |
| Trace Impurities – Gold (Au)                           | <= 4.0 ppb    | < 0.2  |
| Heavy Metals (as Pb)                                   | <= 100 ppb    | < 50   |
| Trace Impurities – Iron (Fe)                           | <= 15.0 ppb   | < 1    |
| Trace Impurities – Lead (Pb)                           | <= 1.0 ppb    | < 0.5  |
| Trace Impurities – Lithium (Li)                        | <= 1.0 ppb    | 0.2    |
| Trace Impurities – Magnesium (Mg)                      | <= 10.0 ppb   | 0.4    |
| Trace Impurities – Manganese (Mn)                      | <= 1.0 ppb    | < 0.4  |
| Trace Impurities – Mercury (Hg)                        | <= 0.5 ppb    | 0.1    |
| Trace Impurities – Molybdenum (Mo)                     | <= 10.0 ppb   | < 5.0  |
| Trace Impurities – Nickel (Ni)                         | <= 4.0 ppb    | < 0.3  |
| Trace Impurities – Niobium (Nb)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Potassium (K)                       | <= 9.0 ppb    | < 2.0  |
| Trace Impurities – Selenium (Se), For Information Only | ppb           | 1.0    |
| Trace Impurities – Silicon (Si)                        | <= 100.0 ppb  | < 10.0 |
| Trace Impurities – Silver (Ag)                         | <= 1.0 ppb    | < 0.3  |
| Trace Impurities – Sodium (Na)                         | <= 100.0 ppb  | < 5.0  |
| Trace Impurities – Strontium (Sr)                      | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Tantalum (Ta)                       | <= 1.0 ppb    | < 0.9  |
| Trace Impurities – Thallium (Tl)                       | <= 5.0 ppb    | < 2.0  |
| Trace Impurities – Tin (Sn)                            | <= 5.0 ppb    | < 0.8  |
| Trace Impurities – Titanium (Ti)                       | <= 1.0 ppb    | 0.2    |
| Trace Impurities – Vanadium (V)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Zinc (Zn)                           | <= 5.0 ppb    | 0.3    |
| Trace Impurities – Zirconium (Zr)                      | <= 1.0 ppb    | < 0.1  |

For Laboratory, Research or Manufacturing Use

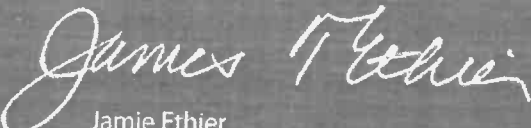
Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

Country of Origin: US

Packaging Site: Phillipsburg Mfg Ctr & DC

  
Jamie Ethier

Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Nitric Acid 69%  
CMOS



R → 11/12/24

M6126

Material No.: 9606-03  
Batch No.: 24D1062002  
Manufactured Date: 2024-03-26  
Retest Date: 2029-03-25  
Revision No.: 0

## Certificate of Analysis

| Test                              | Specification | Result      |
|-----------------------------------|---------------|-------------|
| Assay (HNO <sub>3</sub> )         | 69.0 – 70.0 % | 69.7 %      |
| Appearance                        | Passes Test   | Passes Test |
| Color (APHA)                      | ≤ 10          | 5           |
| Residue after Ignition            | ≤ 2 ppm       | 1 ppm       |
| Chloride (Cl)                     | ≤ 0.08 ppm    | < 0.03 ppm  |
| Phosphate (PO <sub>4</sub> )      | ≤ 0.10 ppm    | < 0.03 ppm  |
| Sulfate (SO <sub>4</sub> )        | ≤ 0.2 ppm     | < 0.2 ppm   |
| Trace Impurities – Aluminum (Al)  | ≤ 40.0 ppb    | < 1.0 ppb   |
| Arsenic and Antimony (as As)      | ≤ 5.0 ppb     | < 2.0 ppb   |
| Trace Impurities – Barium (Ba)    | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Beryllium (Be) | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Bismuth (Bi)   | ≤ 20.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Boron (B)      | ≤ 10.0 ppb    | < 5.0 ppb   |
| Trace Impurities – Cadmium (Cd)   | ≤ 50 ppb      | < 1 ppb     |
| Trace Impurities – Calcium (Ca)   | ≤ 50.0 ppb    | 2.3 ppb     |
| Trace Impurities – Chromium (Cr)  | ≤ 30.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Cobalt (Co)    | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Copper (Cu)    | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Gallium (Ga)   | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Germanium (Ge) | ≤ 20 ppb      | < 10 ppb    |
| Trace Impurities – Gold (Au)      | ≤ 20 ppb      | < 5 ppb     |
| Heavy Metals (as Pb)              | ≤ 100 ppb     | 100 ppb     |
| Trace Impurities – Iron (Fe)      | ≤ 40.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Lead (Pb)      | ≤ 20.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Lithium (Li)   | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Magnesium (Mg) | ≤ 20 ppb      | < 1 ppb     |
| Trace Impurities – Manganese (Mn) | ≤ 10.0 ppb    | < 1.0 ppb   |
| Trace Impurities – Nickel (Ni)    | ≤ 20.0 ppb    | < 5.0 ppb   |

>>> Continued on page 2 >>>

Nitric Acid 69%  
CMOS

 **avantor**<sup>TM</sup>



Material No.: 9606-03  
Batch No.: 24D1062002

| Test | Specification | Result |
|------|---------------|--------|
|------|---------------|--------|

For Microelectronic Use

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak  
Director Quality Operations, Bioscience Production



# CHAMPA PURIE-CHEM INDUSTRIES

ISO 9001 : 2015 CERTIFIED COMPANY

Importers Exporters Manufacturers &amp; Marketing of Fine Chemicals &amp; Pharmaceuticals

262-263, G.I.D.C. Estate,  
Makarpura,  
Vadodara - 390 010.  
Gujarat - INDIA.

Phone : (F) +91-265-2633314 / 2643723  
Fax : (F) +91-265-2638036  
E-mail : info@cpcindia.com  
Web : www.cpcindia.com

W2708 Received on 05/05/20 by AP

## CERTIFICATE OF ANALYSIS

|                                                         |                                             |                            |
|---------------------------------------------------------|---------------------------------------------|----------------------------|
| PRODUCT                                                 | : POTASSIUM PHOSPHATE MONOBASIC Anhy. - ACS |                            |
| CERTIFICATE NO                                          | : 99/2019- 20                               | DATE 26-08-2019            |
| Date of receipt of sample                               | : 22.08.2019                                | Quantity : 1000 KGS        |
| Batch No. /Lot No                                       | : 99/2019- 20                               |                            |
| Mfg. Date                                               | : Aug-2019                                  |                            |
| 1. Characteristic                                       | : A White powder                            |                            |
| 2. Identification                                       | : Positive                                  |                            |
|                                                         | <b>RESULT<br/>OBTAINED</b>                  | <b>LIMITS</b>              |
| 3. Clarity and colour of solution                       | : 10% solution is clear and colourless      |                            |
| 4. Assay (on dry basis)                                 | : 99.27%                                    | Min.99.00%                 |
| 5. PH (5% solution)                                     | : 4.4                                       | 4.1-4.5                    |
| 6. Loss on Drying                                       | : 0.1%                                      | Max 0.2%                   |
| 7. Heavy Metals                                         | : 0.0003%                                   | Max.0.001%                 |
| 8. Iron                                                 | : 0.001%                                    | Max 0.002%                 |
| 9. Sulphate                                             | : 0.001%                                    | Max. 0.003%                |
| 10. Chloride                                            | : 0.0005%                                   | Max.0.001%                 |
| 11. Insoluble Matter                                    | : 0.003%                                    | Max. 0.01%                 |
| 12. Sodium                                              | : 0.004%                                    | Max. 0.005%                |
| The sample does comply with specification as per Above. |                                             |                            |
| Analysed by                                             | <u>J.A. PATHAK</u>                          | Quality Control Department |

W 2979

Rec: 12/09/22

exp. 12/09/27

Product Name:

1,5-Diphenylcarbazide - ACS reagent

Product Number:

259225

Batch Number:

MKCR6636

Brand:

SIAL

CAS Number:

140-22-7

MDL Number:

MFCD00003013

Formula:

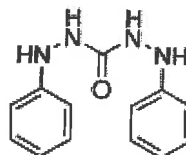
C<sub>13</sub>H<sub>14</sub>N<sub>4</sub>O

Formula Weight:

242.28 g/mol

Quality Release Date:

02 JUN 2022



## Certificate of Analysis

| Test                                   | Specification             | Result   |
|----------------------------------------|---------------------------|----------|
| Appearance (Color)                     | Conforms to Requirements  | Pink     |
| Off-White to Pink, Light Purple or Tan |                           |          |
| Appearance (Form)                      | Powder or Chunks          | Powder   |
| Melting Point                          | 173.0 - 176.0 °C          | 173.0 °C |
| Infrared Spectrum                      | Conforms to Structure     | Conforms |
| Residue on ignition (Ash)              | ≤ 0.05 %                  | 0.01 %   |
| 15 minutes, 800 Degrees Celsius        |                           |          |
| Solubility                             | Pass                      | Pass     |
| Sensitivity Test                       | Pass                      | Pass     |
| Meets ACS Requirements                 | Current ACS Specification | Conforms |



Larry Coers, Director  
Quality Control  
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.





# Certificate of Analysis



## Sodium Hydroxide (Pellets)

**Material:** 0583  
**Grade:** ACS GRADE  
**Batch Number:** 23B1556310

Chemical Formula: NaOH  
Molecular Weight: 40  
CAS #: 1310-73-2  
Appearance:

Manufacture Date: 12/14/2022  
Expiration Date: 12/31/2025

Storage: Room Temperature

Pellets

| TEST               | SPECIFICATION | ANALYSIS | DISPOSITION |
|--------------------|---------------|----------|-------------|
| Calcium            | <= 0.005 %    | <0.005 % | PASS        |
| Chloride           | <= 0.005 %    | 0.002 %  | PASS        |
| Heavy Metals       | <= 0.002 %    | <0.002 % | PASS        |
| Iron               | <= 0.001 %    | <0.001 % | PASS        |
| Magnesium          | <= 0.002 %    | <0.002 % | PASS        |
| Mercury            | <= 0.1 ppm    | <0.1 ppm | PASS        |
| Nickel             | <= 0.001 %    | <0.001 % | PASS        |
| Nitrogen Compounds | <= 0.001 %    | <0.001 % | PASS        |
| Phosphate          | <= 0.001 %    | <0.001 % | PASS        |
| Potassium          | <= 0.02 %     | <0.02 %  | PASS        |
| Purity             | >= 97.0 %     | 99.2 %   | PASS        |
| Sodium Carbonate   | <= 1.0 %      | 0.5 %    | PASS        |
| Sulfate            | <= 0.003 %    | <0.003 % | PASS        |

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon  
VWR Chemicals, LLC.  
28600 Fountain Parkway, Solon OH 44139 USA

### Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.



## Sodium Hydroxide (Pellets)

**Material:** 0583  
**Grade:** ACS GRADE  
**Batch Number:** 23B1556310

Chemical Formula: NaOH  
Molecular Weight: 40  
CAS #: 1310-73-2  
Appearance:

Manufacture Date: 12/14/2022  
Expiration Date: 12/31/2025

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon  
VWR Chemicals, LLC.  
28600 Fountain Parkway, Solon OH 44139 USA

### Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.

|                   |                                                                                                  |                  |           |
|-------------------|--------------------------------------------------------------------------------------------------|------------------|-----------|
| Item Number       | ED150                                                                                            | Lot Number       | 2ND0156   |
| Item              | Edetate Disodium, Dihydrate, USP                                                                 | CAS Number       | 6381-92-6 |
| Molecular Formula | C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> Na <sub>2</sub> O <sub>8</sub> •2H <sub>2</sub> O | Molecular Weight | 372.24    |

| TEST                                                           | SPECIFICATION                                         |             | RESULT                                                |
|----------------------------------------------------------------|-------------------------------------------------------|-------------|-------------------------------------------------------|
|                                                                | MIN                                                   | MAX         |                                                       |
| ASSAY (DRIED BASIS)                                            | 99.0                                                  | 101.0 %     | 99.5 %                                                |
| pH OF A 5% SOLUTION @ 25°C                                     | 4.0                                                   | 6.0         | 4.6                                                   |
| LOSS ON DRYING                                                 | 8.7                                                   | 11.4 %      | 8.90 %                                                |
| CALCIUM (Ca)                                                   | NO PRECIPITATE IS FORMED                              |             | NO PRECIPITATE IS FORMED                              |
| ELEMENTAL IMPURITIES:                                          |                                                       |             | .                                                     |
| NICKEL (Ni)                                                    | AS REPORTED                                           |             | <0.3 ppm                                              |
| CHROMIUM (Cr)                                                  | AS REPORTED                                           |             | <0.3 ppm                                              |
| NITRILOTRIACETIC ACID[n[(HOCOCH <sub>2</sub> ) <sub>3</sub> N] |                                                       | 0.1 %       | <0.10 %                                               |
| IDENTIFICATION A                                               | MATCHES REFERENCE                                     |             | MATCHES REFERENCE                                     |
| IDENTIFICATION B                                               | RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION |             | RED COLOR IS DISCHARGED, LEAVING A YELLOWISH SOLUTION |
| IDENTIFICATION C                                               | MEETS THE REQUIREMENTS FOR SODIUM                     |             | MEETS THE REQUIREMENTS FOR SODIUM                     |
| CERTIFIED HALAL                                                |                                                       |             | CERTIFIED HALAL                                       |
| EXPIRATION DATE                                                |                                                       |             | 10-JUL-2026                                           |
| DATE OF MANUFACTURE                                            |                                                       |             | 11-JUL-2023                                           |
| APPEARANCE                                                     |                                                       |             | WHITE CRYSTALLINE POWDER                              |
| RESIDUAL SOLVENTS                                              |                                                       | AS REPORTED | NO RESIDUAL SOLVENTS PRESENT                          |
| MONOGRAPH EDITION                                              |                                                       |             | USP 2024                                              |

Certificate of Analysis Results Entered By:

CACEVEDO  
Charmian Acevedo  
22-MAY-24 08:12:30

Certificate of Analysis Results Approved By:

GHERRERA  
Genaro Herrera  
22-MAY-24 12:32:01

Spectrum Chemical Mfg Corp  
755 Jersey Avenue  
New Brunswick 08901 NJ



**All pharmaceutical ingredients are tested using current edition of applicable pharmacopeia.**

**Read and understand label and SDS before handling any chemicals. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. It is the customer's responsibility to provide adequate hazardous material training and ensure that appropriate Personal Protective Equipment (PPE) is used before handling any chemical.**

The Elemental Impurities standards implemented by USP and other Pharmaceutical Compendia reflect a growing understanding of the toxicology of trace levels of elemental impurities that can remain in drug substances originating from either raw materials or manufacturing processes. Identifying and quantifying impurities can be critical to predicting the best possible patient outcomes. Elemental Impurities has been a requirement of all products meeting USP/NF, EP and BP monographs since January 1, 2018. More information can be found in USP sections <232> Elemental Impurities – Limits and <233> Elemental Impurities – Procedures. Data for drug substances furnished by Spectrum Chemical Mfg. Corp can be used to ensure that patient daily exposures by oral administration to the selected elements are not exceeded in the formulation of pharmaceutical products.

# Chem-Impex International, Inc.

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**Tel:** (630) 766-2112**E-mail:** sales@chemimpex.com**Shipping and Correspondence:**

935 Dillon Drive

Wood Dale, IL 60191

**Fax:** (630) 766-2218**Web site:** www.chemimpex.com**Manufacturing site:**

825 Dillon Drive

Wood Dale, IL 60191

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## Certificate of Analysis

|                         |                                       |
|-------------------------|---------------------------------------|
| <b>Catalogue Number</b> | 01237                                 |
| <b>Lot Number</b>       | 002126-2019-201                       |
| <b>Product</b>          | <b>Magnesium chloride hexahydrate</b> |

Magnesium chloride•6H<sub>2</sub>O

|                          |                                      |
|--------------------------|--------------------------------------|
| <b>CAS Number</b>        | 7791-18-6                            |
| <b>Molecular Formula</b> | MgCl <sub>2</sub> •6H <sub>2</sub> O |
| <b>Molecular Weight</b>  | 203.3                                |

---

|                           |                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Appearance</b>         | White crystals                                                                                                                                                                                                              |
| <b>Solubility</b>         | 167 g in 100 mL water                                                                                                                                                                                                       |
| <b>Melting Point</b>      | ~ 115 °C                                                                                                                                                                                                                    |
| <b>Heavy Metals</b>       | 4.393 ppm                                                                                                                                                                                                                   |
| <b>Anion</b>              | Nitrate (NO <sub>3</sub> ) : < 0.001%<br>Phosphate (PO <sub>4</sub> ) : < 5 ppm<br>Sulfate (SO <sub>4</sub> ) : < 0.002%                                                                                                    |
| <b>Cation</b>             | Ammonium (NH <sub>4</sub> ) : < 0.002%<br>Barium (Ba) : 0.005%<br>Calcium (Ca) : 0.01%<br>Iron (Fe) : 4.5 ppm<br>Manganese (Mn) : 0.624 ppm<br>Potassium (K) : 0.004%<br>Sodium (Na) : 0.000003%<br>Strontium (Sr) : 0.005% |
| <b>Insoluble material</b> | 0.0021%                                                                                                                                                                                                                     |
| <b>Assay by titration</b> | 100.83%                                                                                                                                                                                                                     |
| <b>Grade</b>              | ACS reagent                                                                                                                                                                                                                 |
| <b>Storage</b>            | Store at RT                                                                                                                                                                                                                 |

## ***Certificate of Analysis***

**Catalog Number: 01237**

**Lot Number: 002126-2019-201**

---

**Remarks**

See material safety data sheet for additional information

For laboratory use only

**The foregoing is a copy of the Certificate of Analysis as provided by our supplier**

A handwritten signature in black ink, appearing to read 'Bala Kumar', with a stylized flourish at the end.

**Bala Kumar**  
**Quality Control Manager**



W3163 Rec. on 12/10/24 by IZ

# Certificate of Analysis



Material BDH9284-2.5KG  
Material Description BDH SODIUM CARB ANHYD ACS 2.5KG  
Grade U S P REAGENT (ACS GRADE)

Batch 24E3156178  
Reassay Date 09/30/2027  
CAS Number 497-19-8  
Molecular Formula Na<sub>2</sub>CO<sub>3</sub>  
Molecular Mass 105.99

Date of Manufacture 09/01/2023  
Storage Room Temperature  
Material is hygroscopic. Protect from Moisture.  
Additional Product Description:

| Characteristics      | Specifications                                             | Measured Values            |
|----------------------|------------------------------------------------------------|----------------------------|
| Appearance           | Fine white granular powder                                 | Fine white granular powder |
| Calcium              | <= 0.03 %                                                  | 0.003 %                    |
| Chloride             | <= 0.001 %                                                 | 0.0003 %                   |
| Heavy Metals (as Pb) | <= 0.0005 %                                                | 0.0001 %                   |
| Insolubles           | <= 0.01 %                                                  | 0.001 %                    |
| Iron                 | <= 0.0005 %                                                | 0.0001 %                   |
| Loss on Heating      | <= 1.0 %                                                   | 0.03 %                     |
| Magnesium            | <= 0.005 %                                                 | 0.001 %                    |
| Phosphate            | <= 0.001 %                                                 | 0.001 %                    |
| Potassium            | <= 0.005 %                                                 | 0.003 %                    |
| Purity               | >= 99.5 %                                                  | 100.0 %                    |
| Silica               | <= 0.005 %                                                 | 0.001 %                    |
| Sulfur Compounds     | <= 0.003 %                                                 | 0.002 %                    |
| Extra Description:   | Meets Reagent Specifications for testing USP/NF monographs |                            |

Internal ID #: 710

| Signature                                                                                                                                                                                                                                                                                        | Additional Information                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| We certify that this batch conforms to the specifications listed above.<br><br>This document has been electronically produced and is valid without a signature.<br><br>Leona Edwardson, Quality Control Sr. Manager - Solon<br>VWR Chemicals, LLC.<br>28600 Fountain Parkway, Solon OH 44139 USA | Analysis may have been rounded to significant digits in specification limits<br><br>Product meets analytical specifications of the grades listed. |

# Certificate of Analysis

## Sodium Hypochlorite Solution, 5% available Chlorine

**Lot Number:** 2501J28**Product Number:** 7495.5**Manufacture Date:** JAN 17, 2025**Expiration Date:** JUL 2025

This solution is subject to slow decomposition upon exposure to air. Keep container tightly capped. Refrigeration may improve stability.  
When used in the Phenate method for Ammonia, APHA recommends replacing this solution about every 2 months.

| Name                | CAS#      | Grade      |
|---------------------|-----------|------------|
| Water               | 7732-18-5 | Commercial |
| Sodium Hypochlorite | 7681-52-9 | Commercial |

| Test                                  | Specification                       | Result                     | NIST SRM# |
|---------------------------------------|-------------------------------------|----------------------------|-----------|
| Appearance                            | Colorless to greenish-yellow liquid | Passed                     |           |
| Assay (vs. Sodium Thiosulfate/Starch) | 4.75-5.25 % (w/w) $\text{Cl}_2$     | 5.17 % (w/w) $\text{Cl}_2$ | 136       |

| Specification           | Reference         |
|-------------------------|-------------------|
| Sodium Hypochlorite, 5% | APHA (4500-NH3 F) |
| Sodium Hypochlorite     | ASTM (D 4785)     |

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 7495.5-1    | 4 L black poly      | 6 months                        |
| 7495.5-16   | 500 mL amber poly   | 6 months                        |
| 7495.5-32   | 1 L amber poly      | 6 months                        |
| 7495.5-8    | 250 mL amber poly   | 6 months                        |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)

Jose Pena (01/17/2025)  
Operations Manager

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.



Refine your results. Redefine your industry.

# Certificate of Analysis

300 Technology Drive  
Christiansburg, VA 24073 USA  
inorganicventures.com

P: 800-669-6799/540-585-3030  
F: 540-585-3012  
info@inorganicventures.com

## 1.0 ACCREDITATION / REGISTRATION

**INORGANIC VENTURES** is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Ion Chromatography Solution  
Catalog Number: 300-CAL-A  
Lot Number: V2-MEB742616  
Matrix: H<sub>2</sub>O  
Value / Analyte(s):  
150 µg/mL ea:  
Sulfate,  
100 µg/mL ea:  
Bromide,  
50 µg/mL ea:  
o-Phosphate as P,  
30 µg/mL ea:  
Chloride, Nitrite as N,  
25 µg/mL ea:  
Nitrate as N,  
20 µg/mL ea:  
Fluoride

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

| ANALYTE                          | CERTIFIED VALUE    | ANALYTE                            | CERTIFIED VALUE    |
|----------------------------------|--------------------|------------------------------------|--------------------|
| Bromide, Br                      | 100.0 ± 0.5 µg/mL  | Chloride, Cl                       | 30.01 ± 0.13 µg/mL |
| Fluoride, F-                     | 20.00 ± 0.07 µg/mL | Nitrate as N, NNO <sub>3</sub> -   | 25.00 ± 0.10 µg/mL |
| Nitrite as N, NNO <sub>2</sub> - | 30.00 ± 0.10 µg/mL | o-Phosphate as P, PPO <sub>4</sub> | 50.00 ± 0.18 µg/mL |
| Sulfate, SO <sub>4</sub>         | 150.0 ± 0.8 µg/mL  |                                    |                    |

Density: 0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

| ANALYTE | METHOD     | NIST SRM#        | SRM LOT#   |
|---------|------------|------------------|------------|
| Br      | IC Assay   | 3184             | 151130     |
| Br      | Fajans     | 999c             | 999c       |
| Cl      | IC Assay   | 3182             | 190830     |
| Cl      | Fajans     | 999c             | 999c       |
| F-      | IC Assay   | 3183             | 140203     |
| NNO3-   | IC Assay   | 3185             | 170309     |
| NNO2-   | IC Assay   | Traceable to 40H | 08228TH-H2 |
| NNO2-   | Calculated | 40h              | 40h        |
| PPO4    | IC Assay   | 3186             | 170606     |
| SO4     | IC Assay   | 3181             | 080603     |

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

#### Characterization of CRM/RM by Two or More Methods

Certified Value,  $X_{CRM/RM}$ , where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

$X_i$  = mean of Assay Method i with standard uncertainty  $u_{char i}$

$w_i$  = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char i}^2)]^{1/2}$  where  $u_{char i}$  are the errors from each characterization method

$u_{bb}$  = bottle to bottle homogeneity standard uncertainty

$u_{lts}$  = long term stability standard uncertainty (storage)

$u_{ts}$  = transport stability standard uncertainty

#### Characterization of CRM/RM by One Method

Certified Value,  $X_{CRM/RM}$ , where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

$X_a$  = mean of Assay Method A with

$u_{char a}$  = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$  = the errors from characterization

$u_{bb}$  = bottle to bottle homogeneity standard uncertainty

$u_{lts}$  = long term stability standard uncertainty (storage)

$u_{ts}$  = transport stability standard uncertainty

## 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

## 5.0 CHROMATOGRAM

N/A

## 6.0 INTENDED USE

**6.1** This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

**6.2** For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures [Terms and Conditions of Sale](https://www.inorganicventures.com/terms-and-conditions-sale). The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

## **7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

### **7.1 Storage and Handling Recommendations**

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit [www.inorganicventures.com/TCT](http://www.inorganicventures.com/TCT)

## **8.0 HAZARDOUS INFORMATION**

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

## **9.0 HOMOGENEITY**

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

## **10.0 QUALITY STANDARD DOCUMENTATION**

### **10.1 ISO 9001 Quality Management System Registration**

- QSR Certificate Number QSR-1034

### **10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"**

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

### **10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"**

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; [inorganicventures.com](http://inorganicventures.com); [info@inorganicventures.com](mailto:info@inorganicventures.com)

## **11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY**

### 11.1 Certification Issue Date

April 02, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

### 11.2 Lot Expiration Date

- **April 02, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

### 11.3 Period of Validity

- Sealed TCT Bag Open Date: \_\_\_\_\_

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

### Certificate Prepared By:

Uyen Truong  
Custom Processing Supervisor



### Certificate Approved By:

Thomas Kozikowski  
Stock VS Manager



### Certifying Officer:

Paul Gaines  
Chairman / Senior Technical Director



# Certificate of Analysis



|                      |                                |
|----------------------|--------------------------------|
| Material             | BDH9208-500G                   |
| Material Description | BDH AMMONIUM CHLORIDE ACS 500G |
| Grade                | U S P REAGENT (ACS GRADE)      |
| Batch                | 24L0356561                     |
| Reassay Date         | 08/31/2027                     |
| CAS Number           | 12125-02-9                     |
| Molecular Formula    | NH <sub>4</sub> Cl             |
| Molecular Mass       | 53.49                          |
| Date of Manufacture  | 08/01/2024                     |
| Storage              | Room Temperature               |

| Characteristics      | Specifications                                             | Measured Values       |
|----------------------|------------------------------------------------------------|-----------------------|
| Appearance           | White granular powder                                      | White granular powder |
| Calcium              | <= 0.001 %                                                 | 0.001 %               |
| Heavy Metals (as Pb) | <= 0.0005 %                                                | <0.0002 %             |
| Insolubles           | <= 0.005 %                                                 | 0.001 %               |
| Iron                 | <= 0.0002 %                                                | <0.0002 %             |
| Magnesium            | <= 0.0005 %                                                | 0.0001 %              |
| pH (5%, Water) @25C  | 4.5 - 5.5                                                  | 4.8                   |
| Phosphate            | <= 0.0002 %                                                | <0.0002 %             |
| Purity               | >= 99.5 %                                                  | 99.8 %                |
| Residue on Ignition  | <= 0.01 %                                                  | 0.003 %               |
| Sulfate              | <= 0.002 %                                                 | <0.002 %              |
| Extra Description:   | Meets Reagent Specifications for testing USP/NF monographs |                       |

Internal ID #: 710

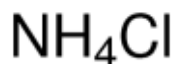
| Signature                                                                                                                                                                                                                                                                                                 | Additional Information                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>We certify that this batch conforms to the specifications listed above.</p> <p>This document has been electronically produced and is valid without a signature.</p> <p>Leona Edwardson, Quality Control Sr. Manager - Solon<br/>VWR Chemicals, LLC.<br/>28600 Fountain Parkway, Solon OH 44139 USA</p> | <p>Analysis may have been rounded to significant digits in specification limits</p> <p>Product meets analytical specifications of the grades listed.</p> |

W3196 Received on 03/19/2025 by IZ

## Certificate of Analysis

Product Name:

Ammonium chloride - ACS reagent, ≥99.5%



**Product Number:** 213330  
**Batch Number:** MKCV1009  
**Brand:** SIGALD  
**CAS Number:** 12125-02-9  
**MDL Number:** MFCD00011420  
**Formula:** H4ClN  
**Formula Weight:** 53.49 g/mol  
**Quality Release Date:** 23 OCT 2023  
**Recommended Retest Date:** SEP 2026

| Test                           | Specification                  | Result    |
|--------------------------------|--------------------------------|-----------|
| Appearance (Color)             | White                          | White     |
| Appearance (Form)              | Powder or Crystals or Chunk(s) | Crystals  |
| Titration by AgNO <sub>3</sub> | ≥ 99.5 %                       | 100.2 %   |
| pH                             | 4.5 - 5.5                      | 4.9       |
| @ 25 Deg c (5% Solution)       |                                |           |
| Insoluble Matter               | ≤ 0.005 %                      | 0.001 %   |
| 10%, H <sub>2</sub> O          |                                |           |
| Residue on ignition (Ash)      | ≤ 0.01 %                       | < 0.01 %  |
| Calcium (Ca)                   | ≤ 0.001 %                      | < 0.001 % |
| Magnesium (Mg)                 | ≤ 5 ppm                        | 1 ppm     |
| Heavy Metals                   | ≤ 5 ppm                        | < 1 ppm   |
| by ICP                         |                                |           |
| Iron (Fe)                      | ≤ 2 ppm                        | < 1 ppm   |
| Phosphate (PO <sub>4</sub> )   | ≤ 2 ppm                        | < 2 ppm   |
| Sulfate (SO <sub>4</sub> )     | ≤ 0.002 %                      | < 0.002 % |
| Meets ACS Requirements         | Current ACS Specification      | Conforms  |
| Recommended Retest Period      | -----                          | -----     |
| 3 Years                        |                                |           |



Larry Coers, Director

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



## Certificate of Analysis

**Product Number:** 213330  
**Batch Number:** MKCV1009

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Quality Control  
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



| Ident         | Instrument IC-1 |         |         |         | Analyst: NF |          | Method: 300.0 / 9056A |            | Initial Analyst |                 |          |
|---------------|-----------------|---------|---------|---------|-------------|----------|-----------------------|------------|-----------------|-----------------|----------|
|               | Con F-          | Con CL- | Con NO2 | Con BR- | Con NO3     | Con HPO4 | Con SO4               |            |                 |                 |          |
| STD1          | 0               | 0       | 0       | 0       | 0           | 0        | 0                     | 0          | IC1-032125      | 3/21/2025 10:45 | 10 NF/IZ |
| STD2          | 0.421           | 0.619   | 0.631   | 2.075   | 0.523       | 1.052    | 3.247                 | IC1-032125 | 3/21/2025 11:07 | 10 NF/IZ        |          |
| STD3          | 0.795           | 1.199   | 1.203   | 3.994   | 1.001       | 1.993    | 5.998                 | IC1-032125 | 3/21/2025 11:28 | 10 NF/IZ        |          |
| STD4          | 0.977           | 1.475   | 1.468   | 4.904   | 1.226       | 2.407    | 7.216                 | IC1-032125 | 3/21/2025 11:50 | 10 NF/IZ        |          |
| STD5          | 1.993           | 3.009   | 2.995   | 10.03   | 2.493       | 4.968    | 14.842                | IC1-032125 | 3/21/2025 12:11 | 10 NF/IZ        |          |
| STD6          | 4.034           | 5.988   | 5.986   | 19.975  | 5.011       | 10.256   | 30.502                | IC1-032125 | 3/21/2025 12:32 | 10 NF/IZ        |          |
| STD7          | 4.979           | 7.51    | 7.517   | 25.022  | 6.247       | 12.323   | 36.695                | IC1-032125 | 3/21/2025 12:54 | 10 NF/IZ        |          |
| ICV           | 2.031           | 3.038   | 3.08    | 10.364  | 2.568       | 5.199    | 15.269                | IC1-032125 | 3/21/2025 13:37 | 10 NF/IZ        |          |
| ICB           | 0               | 0.122   | 0.08    | 0       | 0           | 0        | 0                     | IC1-032125 | 3/21/2025 13:58 | 10 NF/IZ        |          |
| CCV           | 2.034           | 3.119   | 3.093   | 10.383  | 2.559       | 5.188    | 15.179                | IC1-032125 | 4/3/2025 9:38   | 10 NF/IZ        |          |
| CCB           | 0               | 0       | 0       | 0       | 0           | 0        | 0                     | IC1-032125 | 4/3/2025 9:59   | 10 NF/IZ        |          |
| LB135296BSW   | 2.028           | 3.121   | 3.103   | 10.387  | 2.561       | 5.226    | 15.185                | IC1-032125 | 4/3/2025 10:43  | 10 NF/IZ        |          |
| LB135296BLW   | 0               | 0       | 0       | 0       | 0           | 0        | 0                     | IC1-032125 | 4/3/2025 11:04  | 10 NF/IZ        |          |
| Q1711-01      | 0.332           | 26.59   | 0       | 0.215   | 0           | 2.108    | 10.666                | IC1-032125 | 4/3/2025 12:29  | 10 NF/IZ        |          |
| Q1711-02MS    | 2.301           | 28.881  | 3.076   | 10.43   | 2.571       | 2.367    | 24.892                | IC1-032125 | 4/3/2025 12:50  | 10 NF/IZ        |          |
| Q1711-03MSD   | 2.172           | 28.857  | 2.983   | 10.101  | 2.479       | 1.573    | 24.485                | IC1-032125 | 4/3/2025 13:12  | 10 NF/IZ        |          |
| Q1711-04      | 0.275           | 20.1    | 0       | 0.221   | 0           | 0        | 4.529                 | IC1-032125 | 4/3/2025 13:55  | 10 NF/IZ        |          |
| Q1711-08      | 0               | 0.047   | 0       | 0       | 0           | 0        | 0                     | IC1-032125 | 4/3/2025 14:16  | 10 NF/IZ        |          |
| Q1716-01      | 0.433           | 427.687 | 0       | 0.63    | 0.296       | 0        | 54.697                | IC1-032125 | 4/3/2025 14:38  | 10 NF/IZ        |          |
| Q1711-01DLX10 | 0.054           | 2.364   | 0       | 0       | 0           | 0        | 1.413                 | IC1-032125 | 4/3/2025 14:59  | 10 NF/IZ        |          |
| Q1711-04DLX5  | 0.071           | 3.687   | 0       | 0       | 0           | 0        | 1.238                 | IC1-032125 | 4/3/2025 15:21  | 10 NF/IZ        |          |
| CCV           | 2.072           | 3.107   | 3.112   | 10.418  | 2.589       | 5.237    | 15.386                | IC1-032125 | 4/3/2025 15:43  | 10 NF/IZ        |          |
| CCB           | 0               | 0       | 0       | 0       | 0           | 0        | 0                     | IC1-032125 | 4/3/2025 17:16  | 10 NF/IZ        |          |

W3205  
0942  
04/12/25

# CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

## CERTIFICATE OF ANALYSIS

Date: 4/4/2024

Lot No. 540404

| <u>Acetic Acid, Glacial (ACS)</u><br>Reagent Grade |                                                      |               |
|----------------------------------------------------|------------------------------------------------------|---------------|
| <u>TEST</u>                                        | <u>MAXIMUM LIMITS</u>                                | <u>RESULT</u> |
| Appearance                                         | Colorless and free from suspended matter or sediment | Pass          |
| Assay                                              | 99.7 min.                                            | 99.99%        |
| Color (APHA)                                       | 10                                                   | 5             |
| Dilution Test                                      | Passes Test                                          | Pass          |
| Residue after evaporation                          | 0.001%                                               | 0.0003%       |
| Acetic Anhydride                                   | 0.01%                                                | 0.00%         |
| Chloride (cl)                                      | 1 ppm                                                | <1 ppm        |
| Sulfate (SO <sub>4</sub> )                         | 1 ppm                                                | <1 ppm        |
| Heavy Metals (as Pb)                               | 0.5ppm                                               | <0.02 ppm     |
| Iron (Fe)                                          | 0.2ppm                                               | <0.1 ppm      |
| Sub. Red. Dichromate                               | Passes Test                                          | Pass          |
| Sub. Red. Permanganate                             | Passes Test                                          | Pass          |
| Titratable Base                                    | 0.0004meq/g                                          | <0.0002 meq/g |

DATE OF MFG: 4/2024  
RETEST DATE: 4/2026

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 4/23/2025

OVENTEMP IN Celsius(°C): 108  
Time IN: 17:00  
In Date: 04/22/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 08:14  
Out Date: 04/23/2025  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB135521

| Lab ID   | Client SampleID   | Dish # | Dish Wt (g) (A) | Sample Wt (g) | Dish + Sample Wt (g) (B) | Dish+Dry Sample Wt (g) (C) | % Solid | Comments    |
|----------|-------------------|--------|-----------------|---------------|--------------------------|----------------------------|---------|-------------|
| Q1852-01 | ETGI-354          | 19     | 1.15            | 10.26         | 11.41                    | 10.64                      | 92.5    |             |
| Q1852-03 | 72-11977          | 20     | 1.17            | 10.20         | 11.37                    | 10.58                      | 92.3    |             |
| Q1852-05 | ETGI-278          | 21     | 1.18            | 10.36         | 11.54                    | 10.66                      | 91.5    |             |
| Q1852-07 | 72-12013          | 22     | 1.18            | 10.33         | 11.51                    | 10.39                      | 89.2    |             |
| Q1853-01 | EO-02-04222025    | 23     | 1.15            | 9.77          | 10.92                    | 9.75                       | 88.0    |             |
| Q1853-02 | EO-02-04222025-E2 | 24     | 1.16            | 9.97          | 11.13                    | 9.66                       | 85.3    |             |
| Q1854-01 | NB-08-04222025    | 25     | 1.19            | 9.87          | 11.06                    | 10.14                      | 90.7    |             |
| Q1854-02 | NB-08-04222025-E2 | 26     | 1.15            | 9.96          | 11.11                    | 9.97                       | 88.6    |             |
| Q1855-01 | 2001              | 1      | 1.15            | 10.43         | 11.58                    | 11.55                      | 99.7    |             |
| Q1855-03 | 2001-2002         | 2      | 1.16            | 9.59          | 10.75                    | 10.61                      | 98.5    |             |
| Q1855-05 | 60444             | 3      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | debris      |
| Q1856-01 | 41825             | 4      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | wipe sample |
| Q1857-01 | HOPPER-042225-A   | 5      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc        |
| Q1857-02 | HOPPER-042225-B   | 6      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc        |
| Q1857-03 | 02-9022-1-1       | 7      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc        |
| Q1857-04 | 02-9022-1-2       | 8      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc        |
| Q1857-05 | BC274271-1-1      | 9      | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc        |
| Q1857-06 | BC274271-1-2      | 10     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc        |
| Q1857-07 | BC274271-2-1      | 11     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc        |
| Q1857-08 | BC274271-2-2      | 12     | 1.00            | 1.00          | 2.00                     | 2.00                       | 100.0   | oilc        |
| Q1858-01 | COMP-1            | 13     | 1.14            | 9.97          | 11.11                    | 9.5                        | 83.9    |             |
| Q1858-02 | COMP-2            | 14     | 1.19            | 10.59         | 11.78                    | 9.8                        | 81.3    |             |
| Q1858-03 | COMP-3            | 15     | 1.12            | 9.87          | 10.99                    | 10.11                      | 91.1    |             |
| Q1859-01 | COMP-1            | 16     | 1.13            | 10.43         | 11.56                    | 9.43                       | 79.6    |             |
| Q1859-02 | COMP-2            | 17     | 1.15            | 10.35         | 11.5                     | 9.76                       | 83.2    |             |
| Q1859-03 | COMP-3            | 18     | 1.18            | 10.16         | 11.34                    | 9.88                       | 85.6    |             |

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

# WORKLIST(Hardcopy Internal Chain)

205521

WorkList Name : %1-042225

WorkList ID : 189078

Department : Wet-Chemistry

Date : 04-22-2025 08:37:15

| Sample   | Customer Sample   | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-------------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q1852-01 | ETGI-354          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L41                         | 04/22/2025   | Chemtech -SO |
| Q1852-03 | 72-11977          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L41                         | 04/22/2025   | Chemtech -SO |
| Q1852-05 | ETGI-278          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L41                         | 04/22/2025   | Chemtech -SO |
| Q1852-07 | 72-12013          | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L41                         | 04/22/2025   | Chemtech -SO |
| Q1853-01 | EO-02-04222025    | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | L41                         | 04/22/2025   | Chemtech -SO |
| Q1853-02 | EO-02-04222025-E2 | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | L41                         | 04/22/2025   | Chemtech -SO |
| Q1854-01 | NB-08-04222025    | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1854-02 | NB-08-04222025-E2 | Solid  | Percent Solids | Cool 4 deg C | PSEG05   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1855-01 | 2001              | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L51                         | 04/22/2025   | Chemtech -SO |
| Q1855-03 | 2001-2002         | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L51                         | 04/22/2025   | Chemtech -SO |
| Q1855-05 | 60444             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L51                         | 04/22/2025   | Chemtech -SO |
| Q1856-01 | 41825             | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L51                         | 04/22/2025   | Chemtech -SO |
| Q1857-01 | HOPPER-042225-A   | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1857-02 | HOPPER-042225-B   | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1857-03 | 02-9022-1-1       | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1857-04 | 02-9022-1-2       | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1857-05 | BC274271-1-1      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1857-06 | BC274271-1-2      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1857-07 | BC274271-2-1      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1857-08 | BC274271-2-2      | Solid  | Percent Solids | Cool 4 deg C | PSEG03   | L31                         | 04/22/2025   | Chemtech -SO |
| Q1858-01 | COMP-1            | Solid  | Percent Solids | Cool 4 deg C | POWE02   | L41                         | 04/21/2025   | Chemtech -SO |

Date/Time 04/22/25 15:20

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 04/22/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

# WORKLIST(Hardcopy Internal Chain)

135521

WorkList Name : %1-042225      WorkList ID : 189078      Department : Wet-Chemistry      Date : 04-22-2025 08:37:15

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| Q1858-02 | COMP-2          | Solid  | Percent Solids | Cool 4 deg C | POWE02   | L41                         | 04/21/2025   | Chemtech -SO |
| Q1858-03 | COMP-3          | Solid  | Percent Solids | Cool 4 deg C | POWE02   | L41                         | 04/21/2025   | Chemtech -SO |
| Q1859-01 | COMP-1          | Solid  | Percent Solids | Cool 4 deg C | POWE02   | L41                         | 04/18/2025   | Chemtech -SO |
| Q1859-02 | COMP-2          | Solid  | Percent Solids | Cool 4 deg C | POWE02   | L41                         | 04/18/2025   | Chemtech -SO |
| Q1859-03 | COMP-3          | Solid  | Percent Solids | Cool 4 deg C | POWE02   | L41                         | 04/18/2025   | Chemtech -SO |

Date/Time 04/22/25 15:20  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

Date/Time 04/22/25 17:10  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]



# SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:  
COMPANY: Kleinfelder  
ADDRESS: 180 Sheree Blvd Suite 3800  
CITY: Exton STATE: PA ZIP: 19341  
ATTENTION: Mark Warchol  
PHONE: 484-883-3892 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Lincoln High School  
PROJECT NO.: LOCATION: Philadelphia, PA  
PROJECT MANAGER: Mark Warchol  
e-mail: mwarchol@kleinfelder.com  
PHONE: 484-883-3892 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#: Same  
ADDRESS: Same  
CITY: STATE: ZIP:  
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) 5 DAYS\*  
HARDCOPY (DATA PACKAGE): 5 DAYS\*  
EDD: 5 DAYS\*

\*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)  
☒ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP  
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B  
+ Raw Data ☐ Other  
☐ EDD FORMAT

PADEP Clear Fill  
1 2 3 4 5 6 7 8 9

PRESERVATIVES

COMMENTS

| ALLIANCE<br>SAMPLE<br>ID | PROJECT<br>SAMPLE IDENTIFICATION | SAMPLE<br>MATRIX | SAMPLE<br>TYPE |      | SAMPLE<br>COLLECTION |       | # OF BOTTLES | PRESERVATIVES |   |   |   |   |   |   |   |   | COMMENTS<br>← Specify Preservatives<br>A-HCl D-NaOH<br>B-HNO3 E-ICE<br>C-H2SO4 F-OTHER |
|--------------------------|----------------------------------|------------------|----------------|------|----------------------|-------|--------------|---------------|---|---|---|---|---|---|---|---|----------------------------------------------------------------------------------------|
|                          |                                  |                  | COMP           | GRAB | DATE                 | TIME  |              | 1             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                                                                                        |
| 1.                       | COMP-1                           | Soil             | ✓              |      | 4/18/25              | 8:55  | 4            | ✓             |   |   |   |   |   |   |   |   |                                                                                        |
| 2.                       | COMP-2                           | ↓                | ↓              |      | ↓                    | 9:40  | ↓            | ↓             |   |   |   |   |   |   |   |   |                                                                                        |
| 3.                       | COMP-3                           | ↓                | ↓              |      | ↓                    | 10:20 | ↓            | ↓             |   |   |   |   |   |   |   |   |                                                                                        |
| 4.                       |                                  |                  |                |      |                      |       |              |               |   |   |   |   |   |   |   |   |                                                                                        |
| 5.                       |                                  |                  |                |      |                      |       |              |               |   |   |   |   |   |   |   |   |                                                                                        |
| 6.                       |                                  |                  |                |      |                      |       |              |               |   |   |   |   |   |   |   |   |                                                                                        |
| 7.                       |                                  |                  |                |      |                      |       |              |               |   |   |   |   |   |   |   |   |                                                                                        |
| 8.                       |                                  |                  |                |      |                      |       |              |               |   |   |   |   |   |   |   |   |                                                                                        |
| 9.                       |                                  |                  |                |      |                      |       |              |               |   |   |   |   |   |   |   |   |                                                                                        |
| 10.                      |                                  |                  |                |      |                      |       |              |               |   |   |   |   |   |   |   |   |                                                                                        |

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

|                                                   |                              |                                       |                                                                                                                                                                           |
|---------------------------------------------------|------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RELINQUISHED BY SAMPLER:<br>1. <u>[Signature]</u> | DATE/TIME:<br><u>4/18/25</u> | RECEIVED BY:<br>1. <u>[Signature]</u> | Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP <u>2.0</u> °C |
| RELINQUISHED BY SAMPLER:<br>2. <u>FedEx</u>       | DATE/TIME: <u>4/22/25</u>    | RECEIVED BY:<br>2. <u>[Signature]</u> | Comments:                                                                                                                                                                 |
| RELINQUISHED BY SAMPLER:<br>3.                    | DATE/TIME:                   | RECEIVED BY:<br>3.                    | Page <u>1</u> of <u>1</u> CLIENT: <input type="checkbox"/> Hand Delivered <input checked="" type="checkbox"/> Other <u>FedEx</u>                                          |

Shipment Complete  
☐ YES ☐ NO

### Laboratory Certification

| Certified By         | License No.      |
|----------------------|------------------|
|                      |                  |
| CAS EPA CLP Contract | 68HERH20D0011    |
|                      |                  |
| Connecticut          | PH-0830          |
|                      |                  |
| DOD ELAP (ANAB)      | L2219            |
|                      |                  |
| Maine                | 2024021          |
|                      |                  |
| Maryland             | 296              |
|                      |                  |
| New Hampshire        | 255424 Rev 1     |
|                      |                  |
| New Jersey           | 20012            |
|                      |                  |
| New York             | 11376            |
|                      |                  |
| Pennsylvania         | 68-00548         |
|                      |                  |
| Soil Permit          | 525-24-234-08441 |
|                      |                  |
| Texas                | T104704488       |

## LOGIN REPORT/SAMPLE TRANSFER

|                                       |        |                                                                     |                                    |
|---------------------------------------|--------|---------------------------------------------------------------------|------------------------------------|
| <b>Order ID :</b> Q1859               | POWE02 | <b>Order Date :</b> 4/22/2025 2:55:00 PM                            | <b>Project Mgr :</b>               |
| <b>Client Name :</b> Kleinfelder      |        | <b>Project Name :</b> <del>Comegys School</del> Lincoln High School | <b>Report Type :</b> Results+QC    |
| <b>Client Contact :</b> Mark Warchol  |        | <b>Receive DateTime :</b> 4/22/2025 2:50:00 PM                      | <b>EDD Type :</b> EXCEL NOCLEANUP. |
| <b>Invoice Name :</b> Kleinfelder     |        | <b>Purchase Order :</b>                                             | <b>Hard Copy Date :</b>            |
| <b>Invoice Contact :</b> Mark Warchol |        |                                                                     | <b>Date Signoff :</b>              |

| LAB ID   | CLIENT ID | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST         | TEST GROUP | METHOD | FAX DATE    | DUE DATES |
|----------|-----------|--------|-------------|-------------|--------------|------------|--------|-------------|-----------|
| Q1859-01 | COMP-1    | Solid  | 04/18/2025  | 08:55       |              |            |        |             |           |
|          |           |        |             |             | VOCMS Group1 |            | 8260D  | 5 Bus. Days |           |
| Q1859-02 | COMP-2    | Solid  | 04/18/2025  | 09:40       |              |            |        |             |           |
|          |           |        |             |             | VOCMS Group1 |            | 8260D  | 5 Bus. Days |           |
| Q1859-03 | COMP-3    | Solid  | 04/18/2025  | 10:20       |              |            |        |             |           |
|          |           |        |             |             | VOCMS Group1 |            | 8260D  | 5 Bus. Days |           |

Relinquished By :

Date / Time :

  
4/22/25 1510

Received By :

Date / Time :

  
4/22/25 1510

Storage Area : VOA Refridgerator Room