284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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DATA PACKAGE

GENERAL CHEMISTRY

PROJECT NAME : FT MEADE TIPTON AIRFIELD PARCEL RI - PO 0111169

WESTON SOLUTIONS

1400 Weston Way

PO Box 2653

West Chester, PA - 19380

Phone No: 610-701-7400

ORDER ID : Q1109

ATTENTION : Nathan Fretz

Laboratory Certification ID # 20012

Table Of Contents for Q1109

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Cover Page

Order ID : Q1109

Project ID : Ft Meade Tipton Airfield Parcel RI - PO 0111169

Client : Weston Solutions

Lab Sample Number	Client Sample Number
Q1109-01	TAPIAL1-MW04I-011525-00-T3
Q1109-02	TAPIAL1-MW04S-011525-00-T2
Q1109-04	TAP-TB-01-011525

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: 1/23/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Weston Solutions
Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Project # N/A
Chemtech Project # Q1109
Test Name: Hexavalent Chromium,Oil and Grease,Anions Group5,TOC,Ammonia

A. Number of Samples and Date of Receipt:
3 Water samples were received on 01/16/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Ammonia, Anions Group5, Diesel Range Organics, Gasoline Range Organics, Hardness, Total, Hexavalent Chromium, Mercury, Metals ICP-TAL, METALS-TAL, Oil and Grease, PESTICIDE Group1, PESTICIDE Group3, SVOC-TCL BNA -20, TOC and VOC-TCLVOA-10. This data package contains results for Hexavalent Chromium,Oil and Grease,Anions Group5,TOC,Ammonia.

C. Analytical Techniques:
The analysis of Oil and Grease was based on method 1664A, The analysis of Hexavalent Chromium was based on method 7196A, The analysis of Anions Group5 was based on method 9056A, The analysis of TOC was based on method 9060A and The analysis of Ammonia was based on method SM4500-NH3.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
Sample TAPIAL1-MW04S-011525-00-T2 was diluted due to high concentrations for Chloride and Sulfate.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike (TAPIAL1-MW04S-011525-00-T2MS) analysis met criteria for all samples except for Chloride due to sample Matrix interference.
The Matrix Spike Duplicate (DSN002MSD) analysis met criteria for all samples except for Ammonia due to sample Matrix interference.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

E. Additional Comments:
As per method 1664A, MS/MSD is required to be performed with the sample analysis. However, Lab did not receive sufficient volume to perform the MS/MSD therefore MS/MSD were not performed for this project.

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

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

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1109 MATRIX: Water

METHOD: 1664A,7196A,9056A,9060A,SM4500-NH3

		NA	NO	YES
1.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
2.	Matrix Spike Duplicate Recoveries Met Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Blank Spike met requirements for all samples.The Matrix Spike (TAPIAL1-MW04S-011525-00-T2MS) analysis met criteria for all samples except for Chloride due to sample Matrix interference. The Matrix Spike Duplicate (DSN002MSD) analysis met criteria for all samples except for Ammonia due to sample Matrix interference.			
3.	Sample Duplicate Analysis Met QC Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
4.	Digestion Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			

ADDITIONAL COMMENTS:

As per method 1664A, MS/MSD is required to be performed with the sample analysis. However, Lab did not receive sufficient volume to perform the MS/MSD therefore MS/MSD were not performed for this project.

_____ _____

QA REVIEW Date

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1109

	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: SOHIL JODHANI **Date:** 01/23/2025

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LAB CHRONICLE

OrderID:	Q1109	**OrderDate:**	1/16/2025 11:32:00 AM
Client:	Weston Solutions	**Project:**	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	**Location:**	M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1109-01	**TAPIAL1-MW04I-011 525-00-T3**	**WATER**			**01/15/25 12:20**			**01/16/25**
			TOC	9060A			01/17/25 10:39	
Q1109-02	**TAPIAL1-MW04S-011 525-00-T2**	**WATER**			**01/15/25 12:20**			**01/16/25**
			Ammonia	SM4500-NH3		01/17/25	01/17/25 11:44	
			Anions Group5	9056A			01/16/25 14:04	
			Hexavalent Chromium	7196A			01/16/25 13:14	
			Oil and Grease	1664A			01/20/25 16:00	
			TOC	9060A			01/17/25 11:58	
Q1109-02DL	**TAPIAL1-MW04S-011 525-00-T2DL**	**WATER**			**01/15/25 12:20**			**01/16/25**
			Anions Group5	9056A			01/16/25 15:09	

SAMPLE DATA

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Report of Analysis

Client:	Weston Solutions	Date Collected:	01/15/25 12:20
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	01/16/25
Client Sample ID:	TAPIAL1-MW04I-011525-00-T3	SDG No.:	Q1109
Lab Sample ID:	Q1109-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	0.98	J	1	0.19	0.50	1.00	mg/L		01/17/25 10:39	9060A

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

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Report of Analysis

Client:	Weston Solutions	Date Collected:	01/15/25 12:20
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	01/16/25
Client Sample ID:	TAPIAL1-MW04S-011525-00-T2	SDG No.:	Q1109
Lab Sample ID:	Q1109-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	0.080	U	1	0.045	0.080	0.10	mg/L	01/17/25 08:45	01/17/25 11:44	SM 4500-NH3 B plus G-11
Bromide	1.00	U	1	0.034	1.00	2.00	mg/L		01/16/25 14:04	9056A
Chloride	21.4	OR	1	0.011	0.30	0.60	mg/L		01/16/25 14:04	9056A
Fluoride	0.16	J	1	0.057	0.20	0.40	mg/L		01/16/25 14:04	9056A
Nitrite	0.30	U	1	0.011	0.30	0.60	mg/L		01/16/25 14:04	9056A
Nitrate	1.00		1	0.0034	0.25	0.50	mg/L		01/16/25 14:04	9056A
Sulfate	47.3	OR	1	0.032	1.50	3.00	mg/L		01/16/25 14:04	9056A
Dissolved Hexavalent Chromium	0.0050	U	1	0.0030	0.0050	0.010	mg/L		01/16/25 13:14	7196A
Oil and Grease	2.00	U	1	0.40	2.00	5.00	mg/L		01/20/25 16:00	1664A
TOC	1.20		1	0.19	0.50	1.00	mg/L		01/17/25 11:58	9060A

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

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Report of Analysis

Client:	Weston Solutions	Date Collected:	01/15/25 12:20
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	01/16/25
Client Sample ID:	TAPIAL1-MW04S-011525-00-T2DL	SDG No.:	Q1109
Lab Sample ID:	Q1109-02DL	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Chloride	20.3	D	5	0.055	1.50	3.00	mg/L		01/16/25 15:09	9056A
Sulfate	49.3	D	5	0.16	7.50	15.0	mg/L		01/16/25 15:09	9056A

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

QC RESULT SUMMARY

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Initial and Continuing Calibration Verification

Client: Weston Solutions **SDG No.:** Q1109

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 **RunNo.:** LB134309

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Hexavalent Chromium	mg/L	0.499	0.5	100	90-110	01/16/2025
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.502	0.5	100	90-110	01/16/2025
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.502	0.5	100	90-110	01/16/2025

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Initial and Continuing Calibration Verification

Client: Weston Solutions **SDG No.:** Q1109

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 **RunNo.:** LB134312

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: CCV1						
Bromide	mg/L	10.5	10	105	90-110	01/16/2025
Chloride	mg/L	3.1	3	103	90-110	01/16/2025
Fluoride	mg/L	2.1	2	105	90-110	01/16/2025
Nitrite	mg/L	3.1	3	103	90-110	01/16/2025
Nitrate	mg/L	2.6	2.5	104	90-110	01/16/2025
Sulfate	mg/L	15.6	15	104	90-110	01/16/2025
Orthophosphate as P	mg/L	5.3	5	106	90-110	01/16/2025
Sample ID: CCV2						
Bromide	mg/L	10.5	10	105	90-110	01/16/2025
Chloride	mg/L	3.1	3	103	90-110	01/16/2025
Fluoride	mg/L	2.1	2	105	90-110	01/16/2025
Nitrite	mg/L	3.1	3	103	90-110	01/16/2025
Nitrate	mg/L	2.6	2.5	104	90-110	01/16/2025
Sulfate	mg/L	15.6	15	104	90-110	01/16/2025
Orthophosphate as P	mg/L	5.5	5	110	90-110	01/16/2025
Sample ID: ICV1						
Bromide	mg/L	10.3	10	103	90-110	12/18/2024
Chloride	mg/L	3.1	3	103	90-110	12/18/2024
Fluoride	mg/L	2	2	100	90-110	12/18/2024
Nitrite	mg/L	3.1	3	103	90-110	12/18/2024
Nitrate	mg/L	2.6	2.5	104	90-110	12/18/2024
Sulfate	mg/L	15.3	15	102	90-110	12/18/2024
Orthophosphate as P	mg/L	5.1	5	102	90-110	12/18/2024

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Fax : 908 789 8922

Initial and Continuing Calibration Verification

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**RunNo.:**	LB134317

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV1**						
TOC		mg/L	10.4	10	104	90-110	01/15/2025
Sample ID:	**CCV1**						
TOC		mg/L	10.2	10	102	90-110	01/17/2025
Sample ID:	**CCV2**						
TOC		mg/L	10.2	10	102	90-110	01/17/2025

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Initial and Continuing Calibration Verification

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**RunNo.:**	LB134325

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV1**						
Ammonia as N		mg/L	1	1	100	90-110	01/17/2025
Sample ID:	**CCV1**						
Ammonia as N		mg/L	1	1	100	90-110	01/17/2025
Sample ID:	**CCV2**						
Ammonia as N		mg/L	1	1	100	90-110	01/17/2025
Sample ID:	**CCV3**						
Ammonia as N		mg/L	1.1	1	110	90-110	01/17/2025
Sample ID:	**CCV4**						
Ammonia as N		mg/L	1	1	100	90-110	01/17/2025

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Initial and Continuing Calibration Blank Summary

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**RunNo.:**	LB134309

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	01/16/2025
Sample ID: CCB1							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	01/16/2025
Sample ID: CCB2							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	01/16/2025

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Initial and Continuing Calibration Blank Summary

Client: Weston Solutions **SDG No.:** Q1109

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 **RunNo.:** LB134312

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: CCB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	01/16/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/16/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	01/16/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/16/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	01/16/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	01/16/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	01/16/2025
Sample ID: CCB2							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	01/16/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/16/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	01/16/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/16/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	01/16/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	01/16/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	01/16/2025
Sample ID: ICB1							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	12/18/2024
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/18/2024
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	12/18/2024
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	12/18/2024
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	12/18/2024
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	12/18/2024
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	12/18/2024

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Initial and Continuing Calibration Blank Summary

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**RunNo.:**	LB134317

Analyte		Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	**ICB1**							
TOC		mg/L	0.2	0.5000	J	0.19	1	01/15/2025
Sample ID:	**CCB1**							
TOC		mg/L	< 0.5000	0.5000	U	0.19	1	01/17/2025
Sample ID:	**CCB2**							
TOC		mg/L	0.24	0.5000	J	0.19	1	01/17/2025

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Initial and Continuing Calibration Blank Summary

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**RunNo.:**	LB134325

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: CCB1							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: CCB2							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: CCB3							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025
Sample ID: CCB4							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025

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Preparation Blank Summary

Client: Weston Solutions **SDG No.:** Q1109

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB134309BL							
Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.003	0.01	01/16/2025
Sample ID: LB134312BLW							
Bromide	mg/L	< 1.0000	1.0000	U	0.034	2	01/16/2025
Chloride	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/16/2025
Fluoride	mg/L	< 0.2000	0.2000	U	0.057	0.4	01/16/2025
Nitrite	mg/L	< 0.3000	0.3000	U	0.011	0.6	01/16/2025
Nitrate	mg/L	< 0.2500	0.2500	U	0.0034	0.5	01/16/2025
Sulfate	mg/L	< 1.5000	1.5000	U	0.032	3	01/16/2025
Orthophosphate as P	mg/L	< 0.5000	0.5000	U	0.079	1	01/16/2025
Sample ID: LB134317BLW							
TOC	mg/L	0.19	0.5000	J	0.19	1	01/17/2025
Sample ID: LB134347BL							
Oil and Grease	mg/L	< 2.5000	2.5000	U	0.4	5.0	01/20/2025
Sample ID: PB166092BL							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	01/17/2025

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Fax : 908 789 8922

Matrix Spike Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1109-01
Client ID: TAPIAL1-MW04I-011525-00-T3MS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/L	75-125	10.5		0.98	J	10	1	95		01/17/2025

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Matrix Spike Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1109-01
Client ID: TAPIAL1-MW04I-011525-00-T3MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
TOC	mg/L	75-125	10.6		0.98	J	10	1	96		01/17/2025

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Matrix Spike Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1109-02
Client ID: TAPIAL1-MW04S-011525-00-T2MS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/L	80-120	9.80		0.034	U	10	1	98		01/16/2025
Hexavalent Chromium	mg/L	90-111	0.98		0.0030	U	1.0	2	98		01/16/2025
Chloride	mg/L	80-120	23.6	OR	21.4	OR	3	1	73	*	01/16/2025
Fluoride	mg/L	80-120	2.00		0.16	J	2	1	92		01/16/2025
Nitrite	mg/L	80-120	2.90		0.011	U	3	1	97		01/16/2025
Nitrate	mg/L	80-120	3.30		1.00		2.5	1	92		01/16/2025
Sulfate	mg/L	80-120	60.3	OR	47.3	OR	15	1	87		01/16/2025
Orthophosphate as P	mg/L	80-120	5.20		0.079	U	5	1	104		01/16/2025

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Matrix Spike Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1109-02
Client ID: TAPIAL1-MW04S-011525-00-T2MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Bromide	mg/L	80-120	11.1		0.034	U	10	1	111		01/16/2025
Hexavalent Chromium	mg/L	90-111	0.98		0.0030	U	1.0	2	98		01/16/2025
Chloride	mg/L	80-120	24.1	OR	21.4	OR	3	1	90		01/16/2025
Fluoride	mg/L	80-120	2.30		0.16	J	2	1	107		01/16/2025
Nitrite	mg/L	80-120	3.30		0.011	U	3	1	110		01/16/2025
Nitrate	mg/L	80-120	3.70		1.00		2.5	1	108		01/16/2025
Sulfate	mg/L	80-120	62.2	OR	47.3	OR	15	1	99		01/16/2025
Orthophosphate as P	mg/L	80-120	5.80		0.079	U	5	1	116		01/16/2025

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Matrix Spike Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1113-01
Client ID: DSN002MS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	4.30	OR	3.40	OR	1	1	90		01/17/2025

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Matrix Spike Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1113-01
Client ID: DSN002MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	4.10	OR	3.40	OR	1	1	70	*	01/17/2025

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Duplicate Sample Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: LB134347BS
Client ID: LB134347BSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Oil and Grease	mg/L	+/-18	16.9		17.1		1	1.18		01/20/2025

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Duplicate Sample Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1109-01
Client ID: TAPIAL1-MW04I-011525-00-T3MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TOC	mg/L	+/-20	10.5		10.6		1	1		01/17/2025

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Duplicate Sample Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1109-02
Client ID: TAPIAL1-MW04S-011525-00-T2DUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/L	+/-20	0.0030	U	0.0030	U	1	0		01/16/2025

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Duplicate Sample Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1109-02
Client ID: TAPIAL1-MW04S-011525-00-T2MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/L	+/-20	0.98		0.98		2	0.41		01/16/2025
Nitrate	mg/L	+/-15	3.30		3.70		1	11		01/16/2025
Orthophosphate as P	mg/L	+/-15	5.20		5.80		1	11		01/16/2025
Bromide	mg/L	+/-15	9.80		11.1		1	12		01/16/2025
Nitrite	mg/L	+/-15	2.90		3.30		1	13		01/16/2025
Fluoride	mg/L	+/-15	2.00		2.30		1	14		01/16/2025
Chloride	mg/L	+/-15	23.6	OR	24.1	OR	1	2		01/16/2025
Sulfate	mg/L	+/-15	60.3	OR	62.2	OR	1	3		01/16/2025

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Duplicate Sample Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1113-01
Client ID: DSN002DUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	3.40	OR	3.30	OR	1	3		01/17/2025

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Duplicate Sample Summary

Client: Weston Solutions
SDG No.: Q1109
Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Sample ID: Q1113-01
Client ID: DSN002MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	4.30	OR	4.10	OR	1	5		01/17/2025

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Fax : 908 789 8922

Laboratory Control Sample Summary

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**Run No.:**	LB134309

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB134309BS								
Hexavalent Chromium	mg/L	0.5	0.50		101	1	90-111	01/16/2025

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Laboratory Control Sample Summary

Client: Weston Solutions **SDG No.:** Q1109

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 **Run No.:** LB134312

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB134312BSW								
Bromide	mg/L	10	10.5		105	1	90-110	01/16/2025
Chloride	mg/L	3	3.10		103	1	90-110	01/16/2025
Fluoride	mg/L	2	2.10		105	1	90-110	01/16/2025
Nitrite	mg/L	3	3.10		103	1	90-110	01/16/2025
Nitrate	mg/L	2.5	2.60		104	1	90-110	01/16/2025
Sulfate	mg/L	15	15.6		104	1	90-110	01/16/2025
Orthophosphate as P	mg/L	5	5.40		108	1	90-110	01/16/2025

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Laboratory Control Sample Summary

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**Run No.:**	LB134317

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB134317BSW								
TOC	mg/L	10	10.3		103	1	90-110	01/17/2025

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Laboratory Control Sample Summary

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**Run No.:**	LB134347

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB134347BS								
Oil and Grease	mg/L	20.0	16.9		84	1	78-114	01/20/2025

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Laboratory Control Sample Summary

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**Run No.:**	LB134347

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB134347BSD								
Oil and Grease	mg/L	20.0	17.1		86	1	78-114	01/20/2025

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Fax : 908 789 8922

Laboratory Control Sample Summary

Client:	Weston Solutions	**SDG No.:**	Q1109
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	**Run No.:**	LB134325

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID PB166092BS								
Ammonia as N	mg/L	1	0.99		99	1	90-110	01/17/2025

RAW DATA

Analytical Summary Report

Analysis Method: ~~7196A~~

Parameter: ~~Hexavalent Chromium~~

Run Number: ~~LB134309~~

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

pH Meter ID: WC pH Meter-1

Reagent/Standard	Lot/Log #
Calibration Std. hexchrome 0.1 ppm	WP111460
Calibration Std. hexchrome 0.05 ppm	WP111459
calibration std. hexchrome 0.01 ppm	WP111457
calibration std. hexchrome 0 ppm	WP111456
hexavalent chromium color reagent	WP111464
5N sulfuric acid	WP110380
Calibration Std Hexachrome 0.025 ppm	WP111458
Hexavalent Chromium ICV-LCS Std	WP111463
Calibration and CCV std HexChrome 0.5PPM	WP111461
Calibration std HexChrome 1.0PPM	WP111462

Intercept: 0.0003 **Slope:** 0.7809 **Regression:** 0.999991

Seq	Lab ID	True Value (mg/l)	DF	Initial Vol (ml)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at 540nm		Absorbance Difference	Result (mg/L)	%D	Anal Date	Anal Time
								Backgrnd	Color					
1	CAL1	0	1	100	100		1.80	0.000	0.000	0.000	-0.00		01/16/2025	13:00
2	CAL2	0.01	1	100	100		1.88	0.000	0.007	0.007	0.008	-20	01/16/2025	13:01
3	CAL3	0.025	1	100	100		1.84	0.000	0.019	0.019	0.023	-8	01/16/2025	13:02
4	CAL4	0.05	1	100	100		1.86	0.000	0.040	0.040	0.050	0	01/16/2025	13:03
5	CAL5	0.1	1	100	100		1.88	0.000	0.079	0.079	0.100	0	01/16/2025	13:04
6	CAL6	0.5	1	100	100		1.89	0.000	0.393	0.393	0.502	0.4	01/16/2025	13:05
7	CAL7	1	1	100	100		1.90	0.000	0.780	0.780	0.998	-0.2	01/16/2025	13:06

Alliance TECHNICAL GROUP

Analytical Summary Report

Analysis Method: 7196A
ANALYST: rubina
Parameter: Hexavalent Chromium
SUPERVISOR REVIEW BY: Iwona
Run Number: LB134309
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		1.91	0.000	0.390	0.390	0.499	01/16/2025	13:07
2	ICB		1	100	100		1.77	0.000	0.001	0.001	0.001	01/16/2025	13:08
3	CCV1	0.5	1	100	100		1.92	0.000	0.392	0.392	0.502	01/16/2025	13:09
4	CCB1		1	100	100		1.79	0.000	0.000	0.000	0.000	01/16/2025	13:10
5	RL Check	0.01	1	100	100		1.90	0.000	0.008	0.008	0.010	01/16/2025	13:11
6	LB134309BL		1	100	100		1.75	0.000	0.001	0.001	0.001	01/16/2025	13:12
7	LB134309BS	0.5	1	100	100		1.91	0.000	0.394	0.394	0.504	01/16/2025	13:13
8	Q1109-02		1	100	100		2.04	0.000	0.000	0.000	0.000	01/16/2025	13:14
9	Q1109-02DU		1	100	100		2.05	0.000	0.000	0.000	0.000	01/16/2025	13:15
10	Q1109-02MS	1	2	100	100		2.04	0.000	0.382	0.382	0.489	01/16/2025	13:16
11	Q1109-02MS	1	2	100	100		2.06	0.000	0.384	0.384	0.491	01/16/2025	13:17
12	CCV2	0.5	1	100	100		1.95	0.000	0.392	0.392	0.502	01/16/2025	13:18
13	CCB2		1	100	100		1.77	0.000	0.001	0.001	0.001	01/16/2025	13:19

WORKLIST(Hardcopy Internal Chain)

L6134309

WorkList Name : HEX-1-16 **WorkList ID :** 186952 **Department :** Wet-Chemistry **Date :** 01-16-2025 10:57:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1109-02	TAPIAL1-MW04S-011525-00-T2	Water	Hexavalent Chromium	Ammonium sulfate buffer	WEST04	M11	01/15/2025	7196A

Date/Time 01/16/2025 12.00

Raw Sample Received by: RM (CWC)

Raw Sample Relinquished by: (CWC)

Date/Time 01/16/2025 12.45

Raw Sample Received by: (CWC)

Raw Sample Relinquished by: RM (CWC)

Instrument ID: IC-1 Analyst : NF Method: 300.0 / 9056A

Ident	Con F-	Con CL-	Con NO2	Con BR-	Con NO3	Con HPO4	Con SO4	Method name	date time	wt/Fi	Analyst
STD1	0	0	0	0	0	0	0	IC1-121824	12/18/2024 10:39	10	NF/IZ
STD2	0.319	0.475	0.485	1.586	0.405	0.794	2.525	IC1-121824	12/18/2024 11:00	10	NF/IZ
STD3	0.867	1.29	1.286	4.307	1.073	2.153	6.454	IC1-121824	12/18/2024 11:22	10	NF/IZ
STD4	1.065	1.59	1.587	5.29	1.327	2.68	7.947	IC1-121824	12/18/2024 11:43	10	NF/IZ
STD5	1.968	2.98	2.975	9.935	2.472	4.928	14.761	IC1-121824	12/18/2024 12:04	10	NF/IZ
STD6	3.929	5.897	5.891	19.654	4.906	9.805	29.16	IC1-121824	12/18/2024 12:26	10	NF/IZ
STD7	5.052	7.568	7.575	25.229	6.317	12.641	37.652	IC1-121824	12/18/2024 12:47	10	NF/IZ
ICV	2.021	3.088	3.087	10.28	2.565	5.117	15.271	IC1-121824	12/18/2024 13:09	10	NF/IZ
ICB	0	0	0	0	0	0	0	IC1-121824	12/18/2024 13:30	10	NF/IZ
CCV	2.09	3.132	3.137	10.508	2.606	5.295	15.61	IC1-121824	1/16/2025 12:38	10	NF/IZ
CCB	0	0	0	0	0	0	0	IC1-121824	1/16/2025 12:59	10	NF/IZ
LB134312BLW	0	0	0	0	0	0	0	IC1-121824	1/16/2025 13:21	10	NF/IZ
LB134312BSW	2.075	3.11	3.126	10.467	2.599	5.392	15.568	IC1-121824	1/16/2025 13:42	10	NF/IZ
Q1109-02	0.157	21.384	0	0	1.006	0	47.26	IC1-121824	1/16/2025 14:04	10	NF/IZ
Q1109-02MS	2.038	23.626	2.921	9.805	3.287	5.204	60.338	IC1-121824	1/16/2025 14:25	10	NF/IZ
Q1109-02MSD	2.26	24.074	3.315	11.103	3.65	5.811	62.226	IC1-121824	1/16/2025 14:47	10	NF/IZ
Q1109-02DLX5	0	4.065	0	0	0.33	0	9.859	IC1-121824	1/16/2025 15:09	10	NF/IZ
CCV	2.118	3.131	3.137	10.503	2.612	5.484	15.636	IC1-121824	1/16/2025 15:30	10	NF/IZ
CCB	0	0	0	0	0	0	0	IC1-121824	1/16/2025 15:52	10	NF/IZ

Clear table

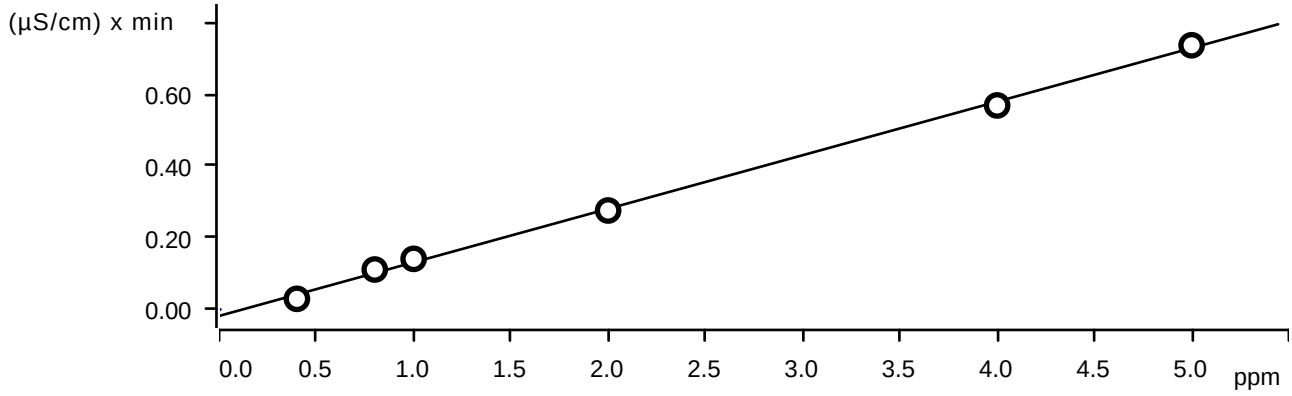
Instrument ID: IC-2 Analyst : IZ Method: 300.0 / 9056A

ident	concentration F-	concentration CL-	concentration NO2	concentration BR-	concentration NO3	concentration HPO4	concentration SO4	file name	date time	Initial wt/ Final	Analyst
STD1	0	0	0	0	0	0	0	IC1-121824	12/18/2024 10:39	10	NF/IZ
STD2	0.319	0.475	0.485	1.586	0.405	0.794	2.525	IC1-121824	12/18/2024 11:00	10	NF/IZ
STD3	0.867	1.29	1.286	4.307	1.073	2.153	6.454	IC1-121824	12/18/2024 11:22	10	NF/IZ
STD4	1.065	1.59	1.587	5.29	1.327	2.68	7.947	IC1-121824	12/18/2024 11:43	10	NF/IZ
STD5	1.968	2.98	2.975	9.935	2.472	4.928	14.761	IC1-121824	12/18/2024 12:04	10	NF/IZ
STD6	3.929	5.897	5.891	19.654	4.906	9.805	29.16	IC1-121824	12/18/2024 12:26	10	NF/IZ
STD7	5.052	7.568	7.575	25.229	6.317	12.641	37.652	IC1-121824	12/18/2024 12:47	10	NF/IZ

ident	True Value F-	True Value CL-	True Value NO2	True Value BR-	True Value NO3	True Value HPO4	True Value 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 Error F-	Relative Error CL-	Relative Error NO2	Relative Error BR-	Relative Error NO3	Relative Error HPO4	Relative Error SO4
STD1							
STD2	-20.2500	-20.8333	-19.1667	-20.7000	-19.0000	-20.6000	-15.8333
STD3	8.3750	7.5000	7.1667	7.6750	7.3000	7.6500	7.5667
STD4	6.5000	6.0000	5.8000	5.8000	6.1600	7.2000	5.9600
STD5	-1.6000	-0.6667	-0.8333	-0.6500	-1.1200	-1.4400	-1.5933
STD6	-1.7750	-1.7167	-1.8167	-1.7300	-1.8800	-1.9500	-2.8000
STD7	1.0400	0.9067	1.0000	0.9160	1.0720	1.1280	1.7622

Fluoride (Anions)



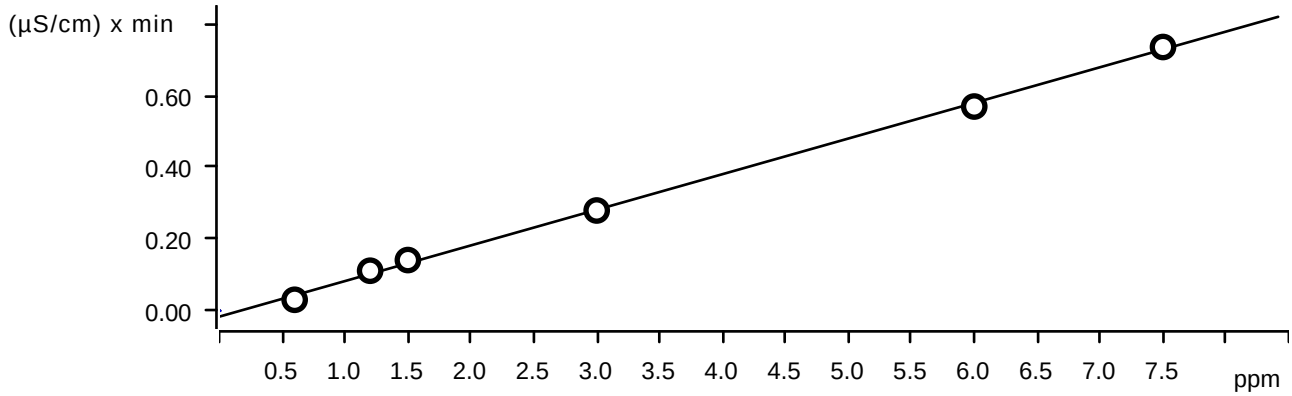
Function: . . . . . *A = - 0.0183596 + 0.0149351× Q*

Relative standard deviation . . . . . *3.731557 %*

Correlation coefficient *0.999324*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 2	1	0.400	10.0	1.0	1.0	0.029	STD2	2024-12-18 11:00:37 UTC-5	used
Standard 3	1	0.800	10.0	1.0	1.0	0.111	STD3	2024-12-18 11:22:01 UTC-5	used
Standard 4	1	1.000	10.0	1.0	1.0	0.141	STD4	2024-12-18 11:43:26 UTC-5	used
Standard 5	1	2.000	10.0	1.0	1.0	0.276	STD5	2024-12-18 12:04:52 UTC-5	used
Standard 6	1	4.000	10.0	1.0	1.0	0.568	STD6	2024-12-18 12:26:18 UTC-5	used
Standard 7	1	5.000	10.0	1.0	1.0	0.736	STD7	2024-12-18 12:47:45 UTC-5	used

Chloride (Anions)



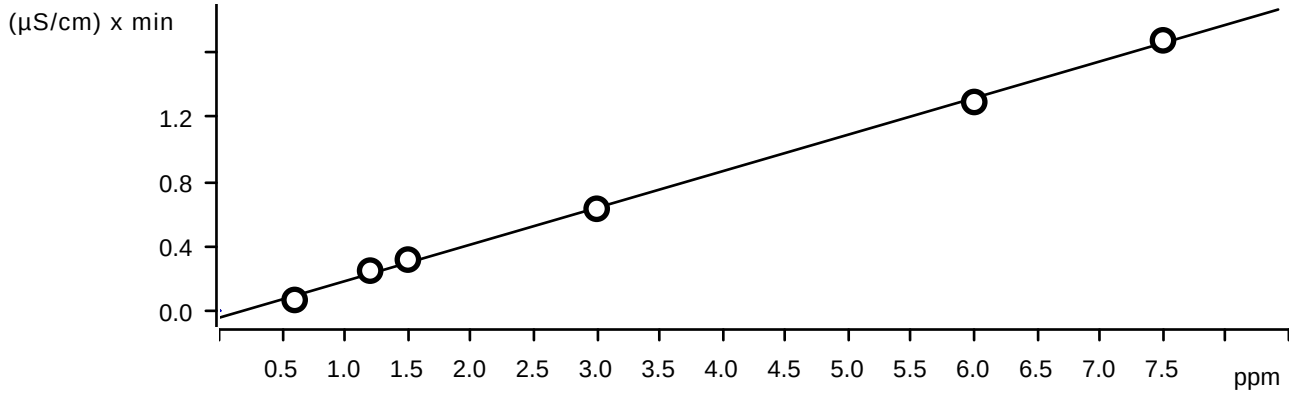
Function: . . . . . *A = - 0.0165562 + 9.93613E-3× Q*

Relative standard deviation . . . . . *3.466087 %*

Correlation coefficient *0.999410*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 2	1	0.600	10.0	1.0	1.0	0.031	STD2	2024-12-18 11:00:37 UTC-5	used
Standard 3	1	1.200	10.0	1.0	1.0	0.112	STD3	2024-12-18 11:22:01 UTC-5	used
Standard 4	1	1.500	10.0	1.0	1.0	0.141	STD4	2024-12-18 11:43:26 UTC-5	used
Standard 5	1	3.000	10.0	1.0	1.0	0.280	STD5	2024-12-18 12:04:52 UTC-5	used
Standard 6	1	6.000	10.0	1.0	1.0	0.569	STD6	2024-12-18 12:26:18 UTC-5	used
Standard 7	1	7.500	10.0	1.0	1.0	0.735	STD7	2024-12-18 12:47:45 UTC-5	used

Nitrite (Anions)



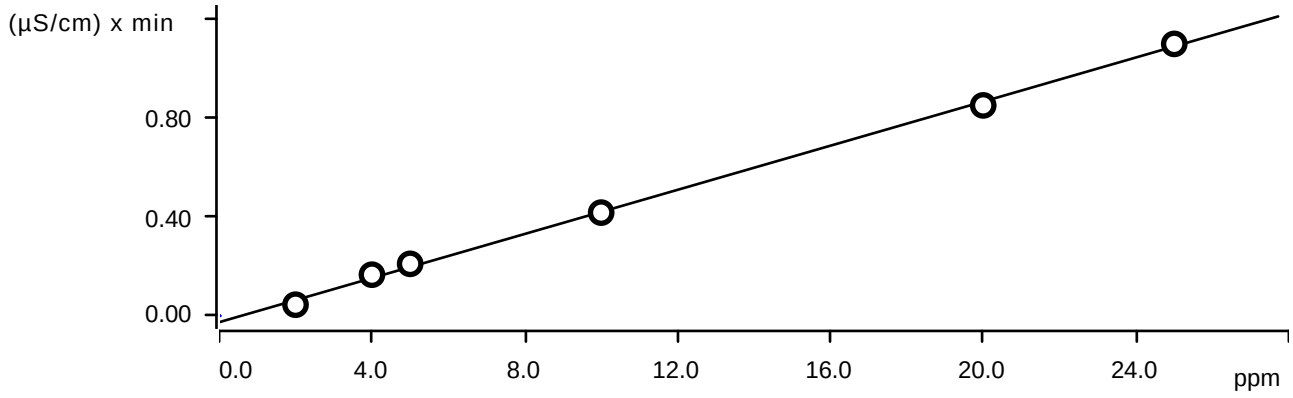
Function: . . . . . *A = - 0.0434679 + 0.0226901× Q*

Relative standard deviation . . . . . *3.455351 %*

Correlation coefficient *0.999423*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 2	1	0.600	10.0	1.0	1.0	0.067	STD2	2024-12-18 11:00:37 UTC-5	used
Standard 3	1	1.200	10.0	1.0	1.0	0.248	STD3	2024-12-18 11:22:01 UTC-5	used
Standard 4	1	1.500	10.0	1.0	1.0	0.317	STD4	2024-12-18 11:43:26 UTC-5	used
Standard 5	1	3.000	10.0	1.0	1.0	0.632	STD5	2024-12-18 12:04:52 UTC-5	used
Standard 6	1	6.000	10.0	1.0	1.0	1.293	STD6	2024-12-18 12:26:18 UTC-5	used
Standard 7	1	7.500	10.0	1.0	1.0	1.675	STD7	2024-12-18 12:47:45 UTC-5	used

Bromide (Anions)



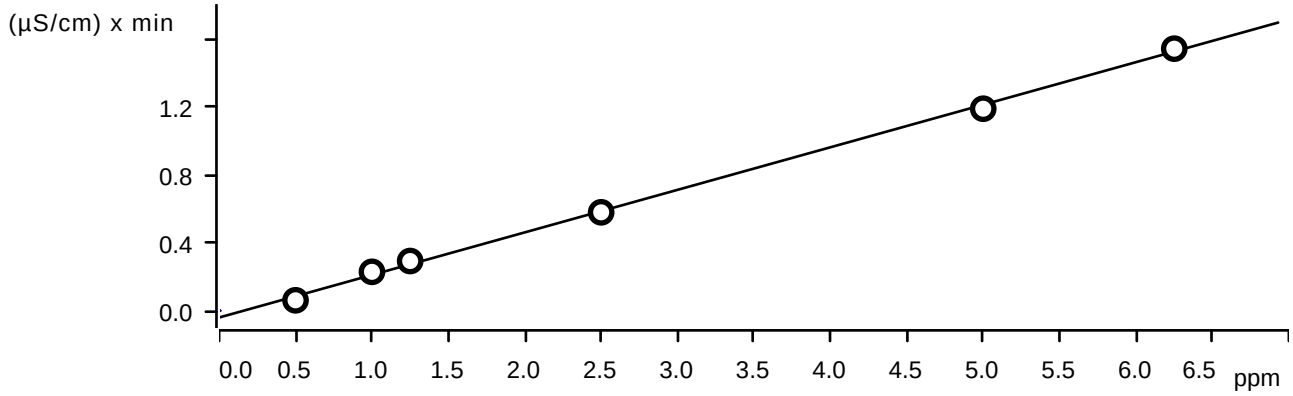
Function: . . . . . *A = - 0.0255661 + 4.44233E-3× Q*

Relative standard deviation . . . . . *3.478545 %*

Correlation coefficient *0.999408*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 2	1	2.000	10.0	1.0	1.0	0.045	STD2	2024-12-18 11:00:37 UTC-5	used
Standard 3	1	4.000	10.0	1.0	1.0	0.166	STD3	2024-12-18 11:22:01 UTC-5	used
Standard 4	1	5.000	10.0	1.0	1.0	0.209	STD4	2024-12-18 11:43:26 UTC-5	used
Standard 5	1	10.000	10.0	1.0	1.0	0.416	STD5	2024-12-18 12:04:52 UTC-5	used
Standard 6	1	20.000	10.0	1.0	1.0	0.848	STD6	2024-12-18 12:26:18 UTC-5	used
Standard 7	1	25.000	10.0	1.0	1.0	1.095	STD7	2024-12-18 12:47:45 UTC-5	used

Nitrate (Anions)



Function: . . . . . *A = - 0.0400484 + 0.0250507× Q*

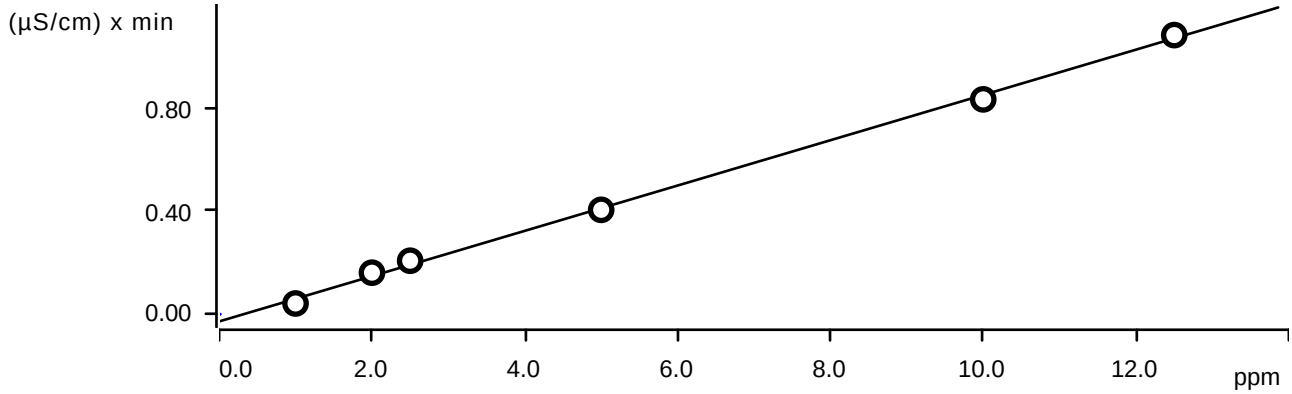
Relative standard deviation . . . . . *3.586984 %*

Correlation coefficient *0.999378*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 2	1	0.500	10.0	1.0	1.0	0.061	STD2	2024-12-18 11:00:37 UTC-5	used

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 3	1	1.000	10.0	1.0	1.0	0.229	STD3	2024-12-18 11:22:01 UTC-5	used
Standard 4	1	1.250	10.0	1.0	1.0	0.292	STD4	2024-12-18 11:43:26 UTC-5	used
Standard 5	1	2.500	10.0	1.0	1.0	0.579	STD5	2024-12-18 12:04:52 UTC-5	used
Standard 6	1	5.000	10.0	1.0	1.0	1.189	STD6	2024-12-18 12:26:18 UTC-5	used
Standard 7	1	6.250	10.0	1.0	1.0	1.542	STD7	2024-12-18 12:47:45 UTC-5	used

Phosphate (Anions)



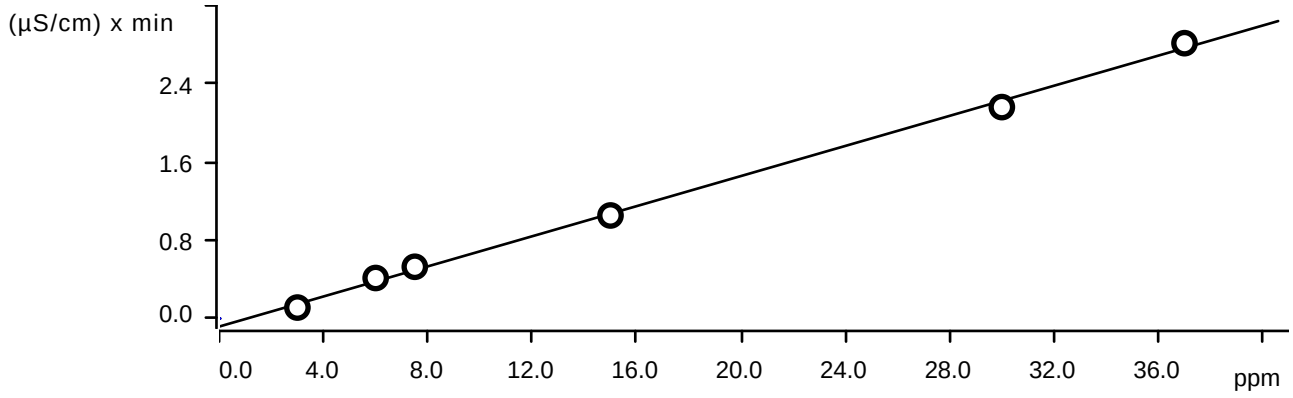
Function: . . . . . *A = - 0.0282076 + 8.77175E-3× Q*

Relative standard deviation . . . . . *3.880200 %*

Correlation coefficient *0.999273*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 2	1	1.000	10.0	1.0	1.0	0.041	STD2	2024-12-18 11:00:37 UTC-5	used
Standard 3	1	2.000	10.0	1.0	1.0	0.161	STD3	2024-12-18 11:22:01 UTC-5	used
Standard 4	1	2.500	10.0	1.0	1.0	0.207	STD4	2024-12-18 11:43:26 UTC-5	used
Standard 5	1	5.000	10.0	1.0	1.0	0.404	STD5	2024-12-18 12:04:52 UTC-5	used
Standard 6	1	10.000	10.0	1.0	1.0	0.832	STD6	2024-12-18 12:26:18 UTC-5	used
Standard 7	1	12.500	10.0	1.0	1.0	1.081	STD7	2024-12-18 12:47:45 UTC-5	used

Sulfate (Anions)



Function: . . . . . *A = - 0.0827937 + 7.69466E-3× Q*

Relative standard deviation . . . . . *4.394299 %*

Correlation coefficient *0.999072*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
Standard 2	1	3.000	10.0	1.0	1.0	0.112	STD2	2024-12-18 11:00:37 UTC-5	used
Standard 3	1	6.000	10.0	1.0	1.0	0.414	STD3	2024-12-18 11:22:01 UTC-5	used
Standard 4	1	7.500	10.0	1.0	1.0	0.529	STD4	2024-12-18 11:43:26 UTC-5	used
Standard 5	1	15.000	10.0	1.0	1.0	1.053	STD5	2024-12-18 12:04:52 UTC-5	used
Standard 6	1	30.000	10.0	1.0	1.0	2.161	STD6	2024-12-18 12:26:18 UTC-5	used
Standard 7	1	37.000	10.0	1.0	1.0	2.814	STD7	2024-12-18 12:47:45 UTC-5	used

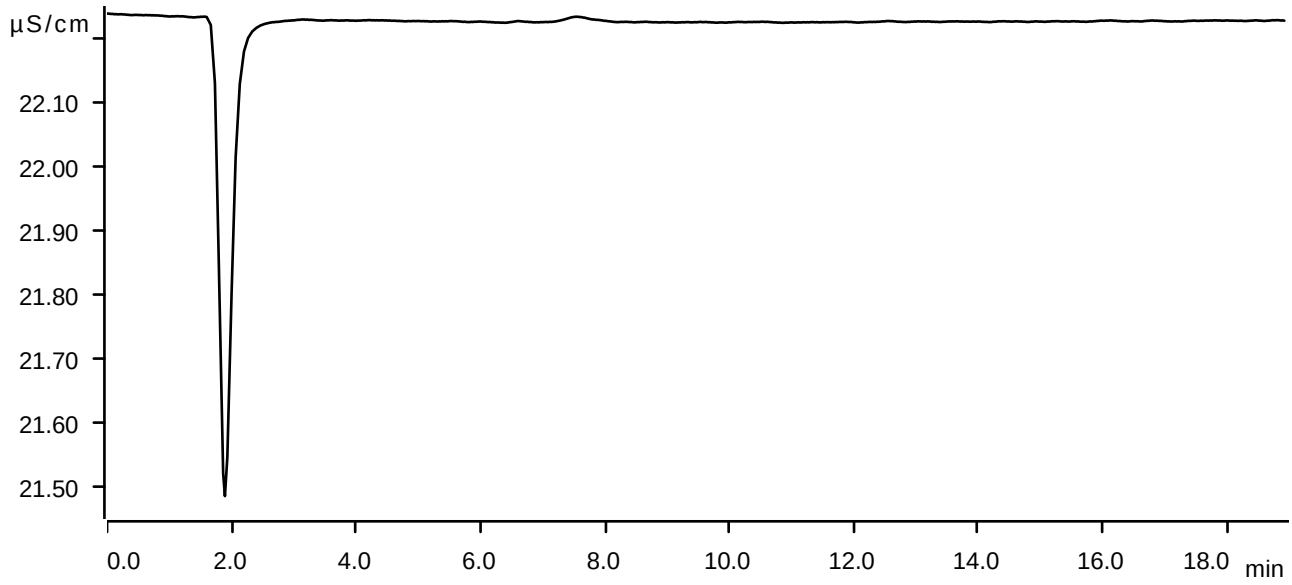
Sample data

Ident	STD1
Sample type	Standard 1
Determination start	2024-12-18 10:39:14 UTC-5
Method	IC1-121824
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



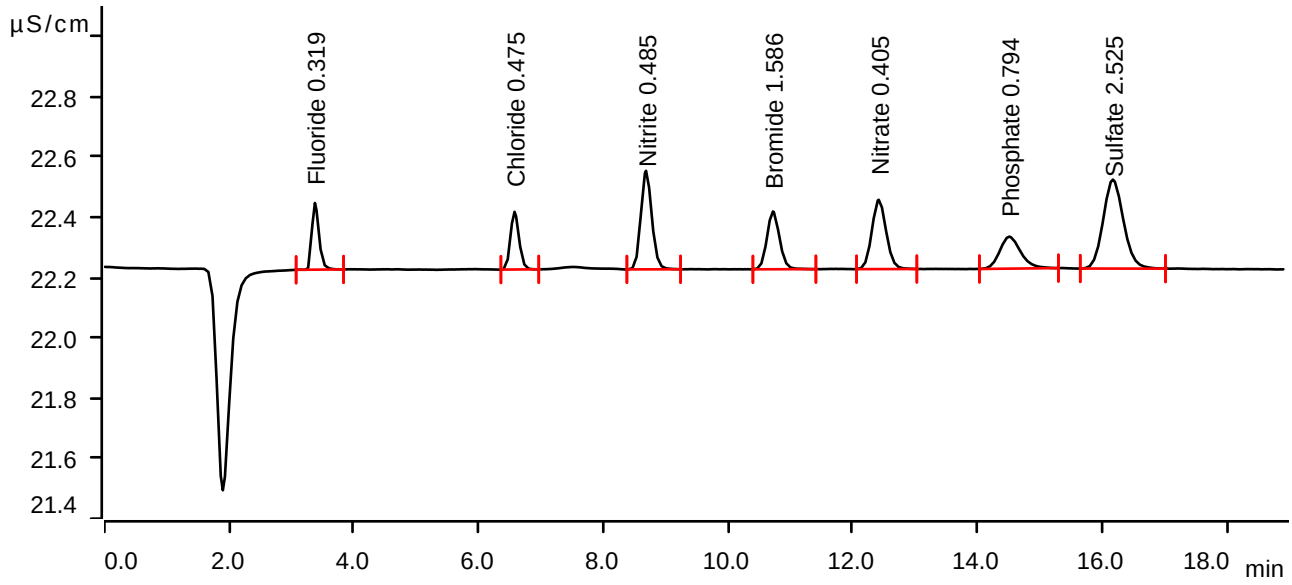
Sample data

Ident	STD2
Sample type	Standard 2
Determination start	2024-12-18 11:00:37 UTC-5
Method	IC1-121824
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 min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.377	0.0293	0.221	0.319	Fluoride
2	6.577	0.0307	0.191	0.475	Chloride
3	8.685	0.0666	0.327	0.485	Nitrite
4	10.720	0.0449	0.192	1.586	Bromide
5	12.415	0.0613	0.230	0.405	Nitrate
6	14.510	0.0414	0.106	0.794	Phosphate
7	16.170	0.1115	0.295	2.525	Sulfate

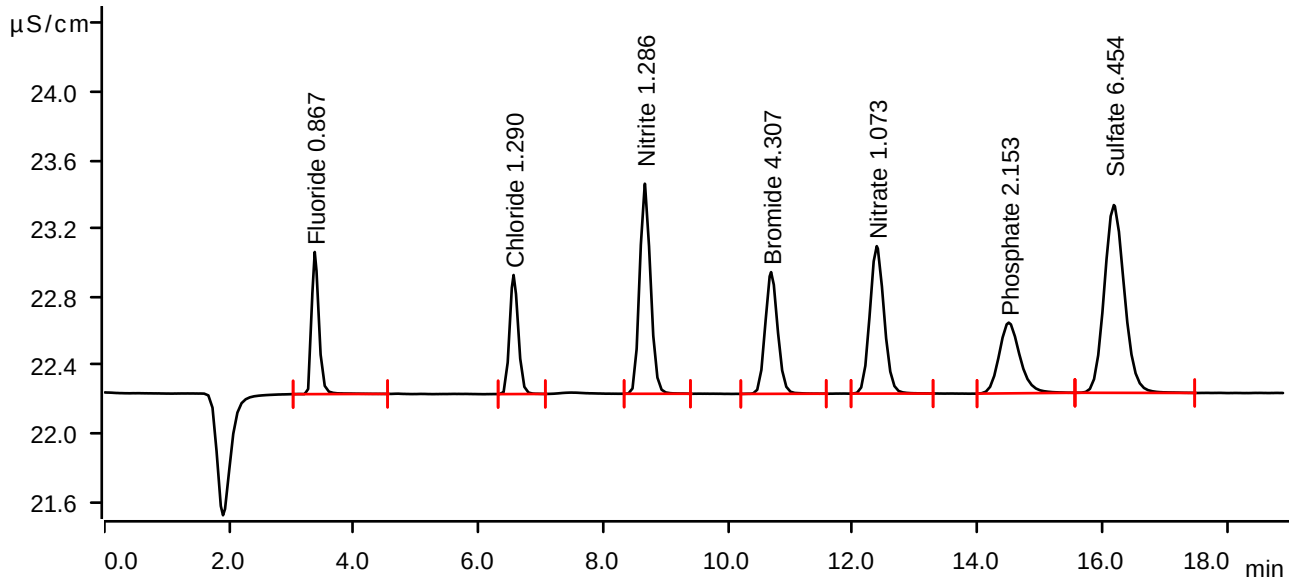
Sample data

Ident	STD3
Sample type	Standard 3
Determination start	2024-12-18 11:22:01 UTC-5
Method	IC1-121824
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	11.09	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.373	0.1111	0.832	0.867	Fluoride
2	6.562	0.1116	0.697	1.290	Chloride
3	8.665	0.2483	1.230	1.286	Nitrite
4	10.690	0.1658	0.713	4.307	Bromide
5	12.383	0.2288	0.864	1.073	Nitrate
6	14.500	0.1606	0.414	2.153	Phosphate
7	16.185	0.4138	1.100	6.454	Sulfate

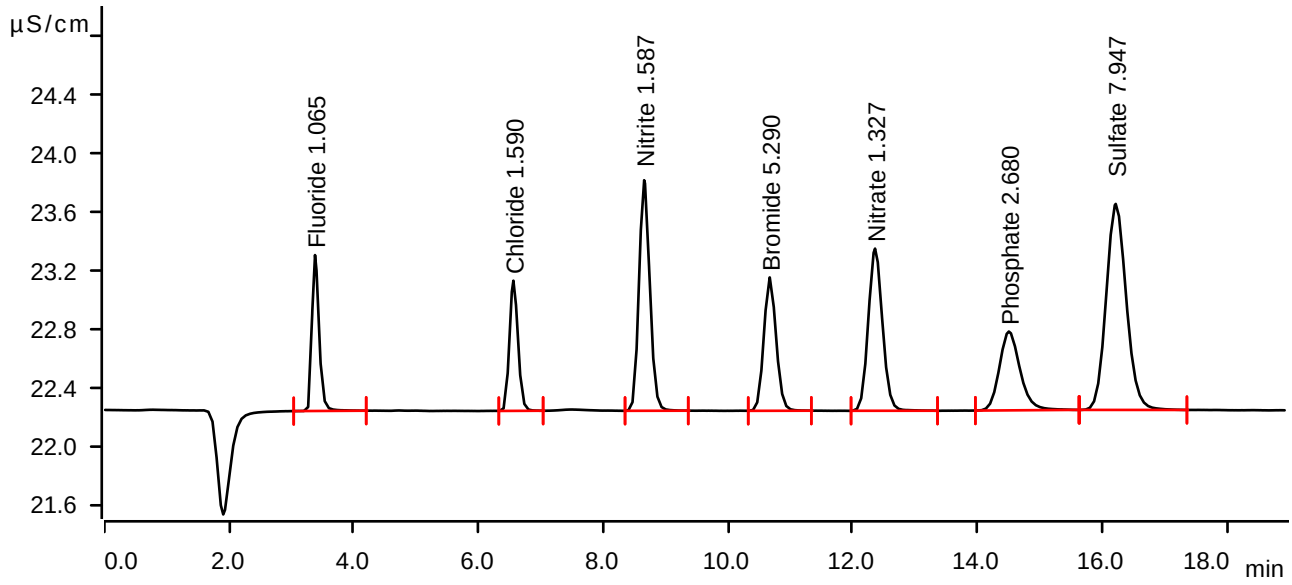
Sample data

Ident	STD4
Sample type	Standard 4
Determination start	2024-12-18 11:43:26 UTC-5
Method	IC1-121824
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	10.87	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.378	0.1407	1.065	1.065	Fluoride
2	6.558	0.1414	0.890	1.590	Chloride
3	8.655	0.3167	1.575	1.587	Nitrite
4	10.668	0.2094	0.911	5.290	Bromide
5	12.357	0.2924	1.108	1.327	Nitrate
6	14.502	0.2069	0.539	2.680	Phosphate
7	16.215	0.5287	1.408	7.947	Sulfate

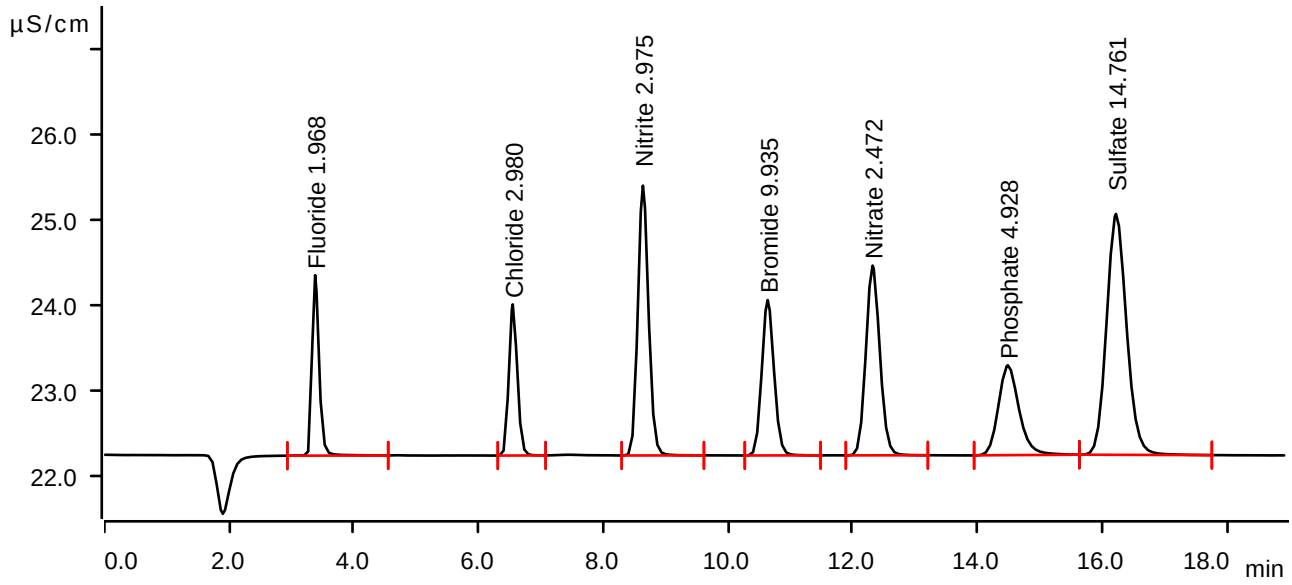
Sample data

Ident	STD5
Sample type	Standard 5
Determination start	2024-12-18 12:04:52 UTC-5
Method	IC1-121824
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	11.04	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.380	0.2755	2.114	1.968	Fluoride
2	6.548	0.2796	1.770	2.980	Chloride
3	8.635	0.6316	3.161	2.975	Nitrite
4	10.635	0.4158	1.820	9.935	Bromide
5	12.317	0.5791	2.223	2.472	Nitrate
6	14.485	0.4040	1.052	4.928	Phosphate
7	16.220	1.0530	2.822	14.761	Sulfate

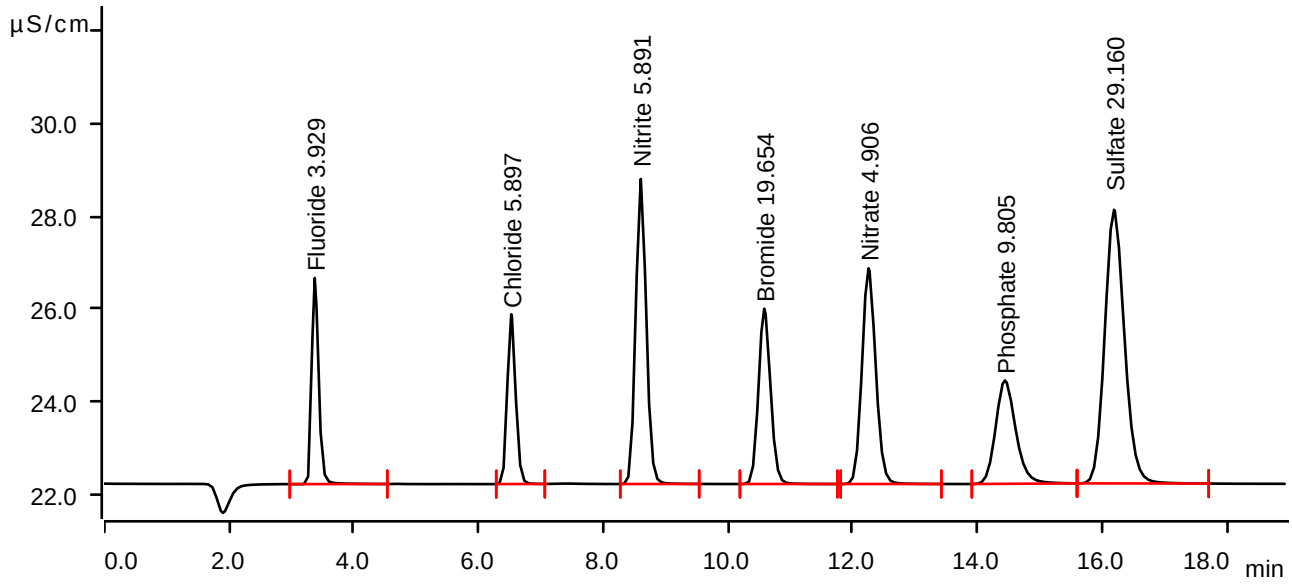
Sample data

Ident	STD6
Sample type	Standard 6
Determination start	2024-12-18 12:26:18 UTC-5
Method	IC1-121824
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	10.98	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.373	0.5685	4.427	3.929	Fluoride
2	6.523	0.5694	3.646	5.897	Chloride
3	8.602	1.2933	6.549	5.891	Nitrite
4	10.580	0.8475	3.765	19.654	Bromide
5	12.252	1.1889	4.631	4.906	Nitrate
6	14.438	0.8318	2.220	9.805	Phosphate
7	16.188	2.1610	5.877	29.160	Sulfate

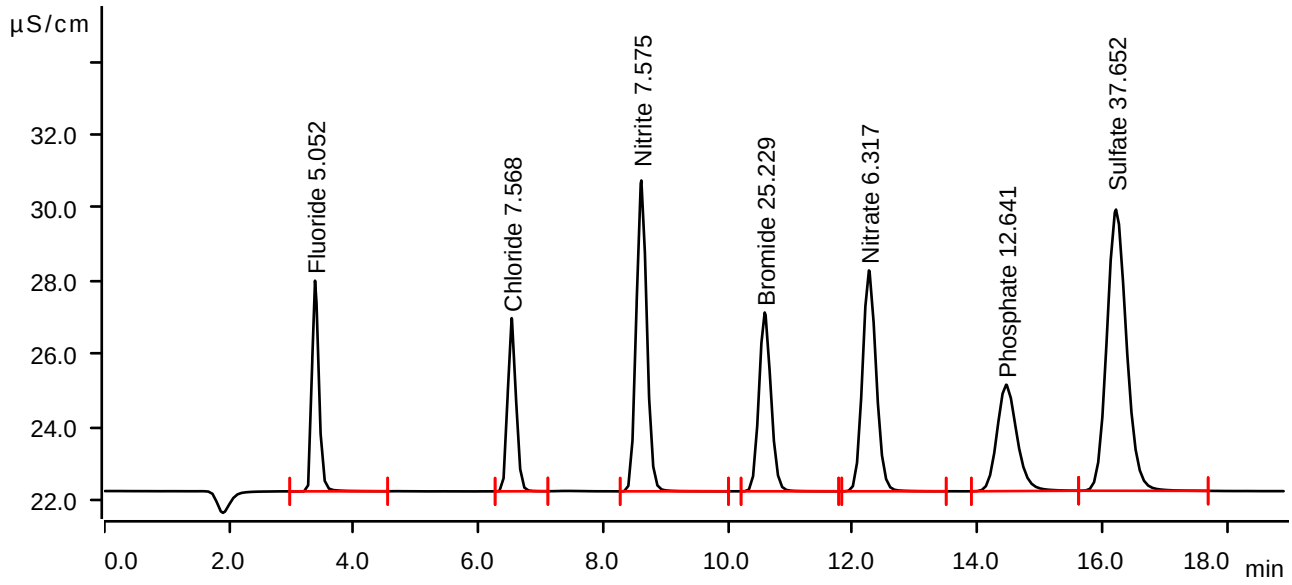
Sample data

Ident	STD7
Sample type	Standard 7
Determination start	2024-12-18 12:47:45 UTC-5
Method	IC1-121824
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	10.75	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.378	0.7362	5.758	5.052	Fluoride
2	6.530	0.7354	4.734	7.568	Chloride
3	8.610	1.6752	8.496	7.575	Nitrite
4	10.587	1.0952	4.888	25.229	Bromide
5	12.258	1.5424	6.037	6.317	Nitrate
6	14.458	1.0806	2.908	12.641	Phosphate
7	16.220	2.8144	7.686	37.652	Sulfate

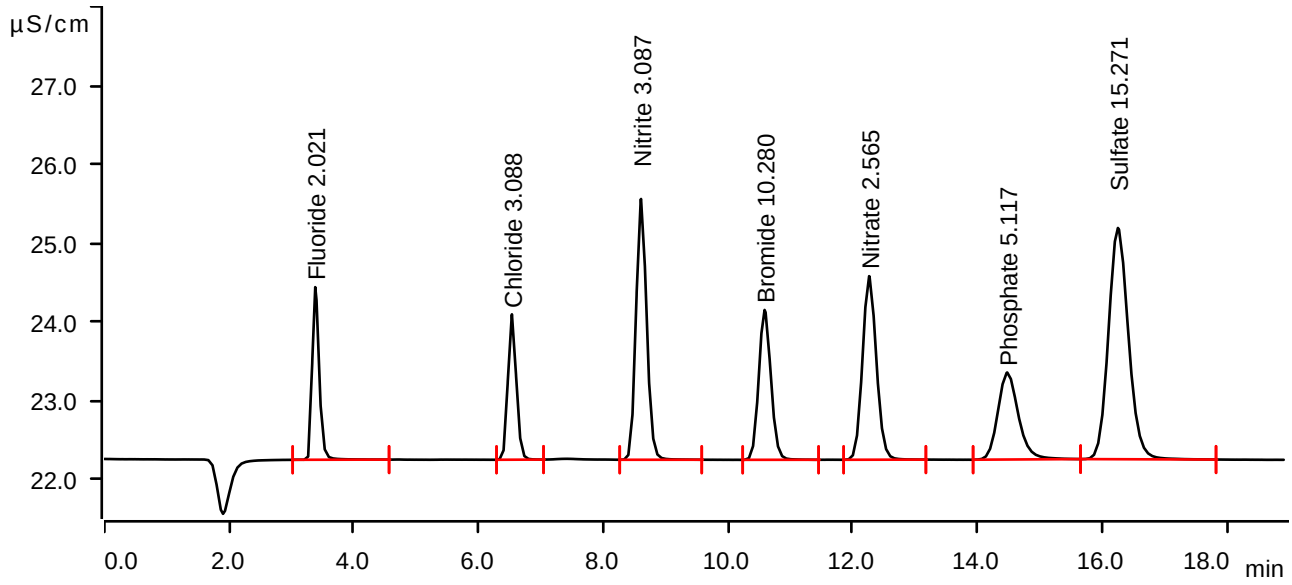
Sample data

Ident	ICV
Sample type	Check standard 1
Determination start	2024-12-18 13:09:13 UTC-5
Method	IC1-121824
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	10.87	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.382	0.2835	2.190	2.021	Fluoride
2	6.533	0.2903	1.845	3.088	Chloride
3	8.605	0.6571	3.309	3.087	Nitrite
4	10.585	0.4311	1.902	10.280	Bromide
5	12.262	0.6024	2.329	2.565	Nitrate
6	14.477	0.4207	1.104	5.117	Phosphate
7	16.250	1.0923	2.934	15.271	Sulfate

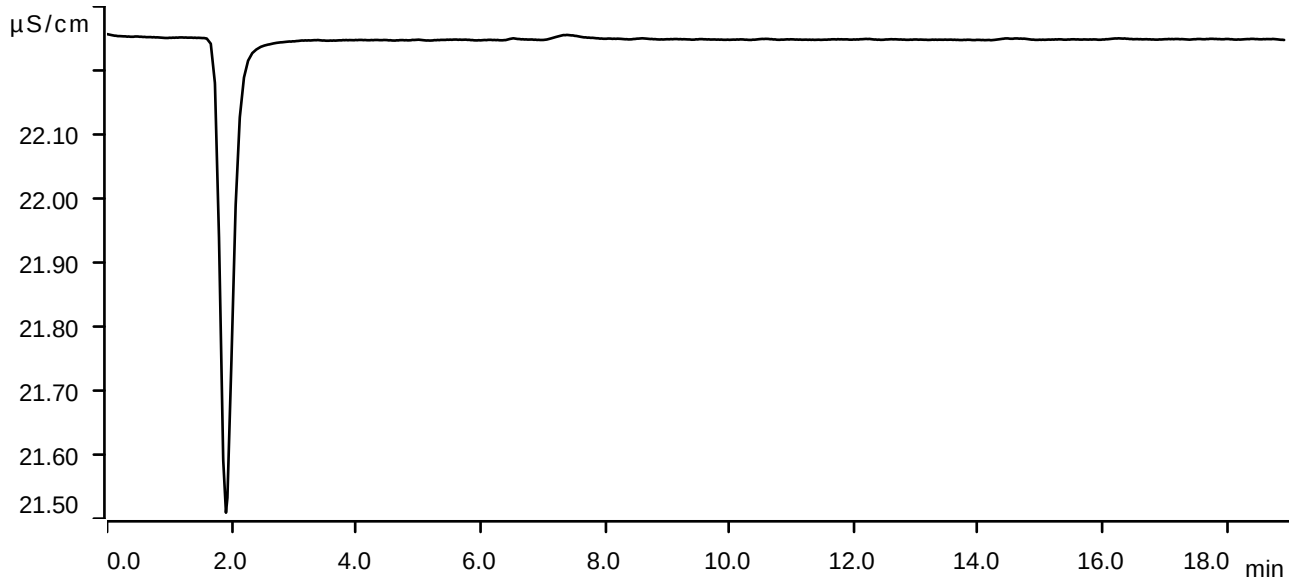
Sample data

Ident	ICB
Sample type	Sample
Determination start	2024-12-18 13:30:41 UTC-5
Method	IC1-121824
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	10.64	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



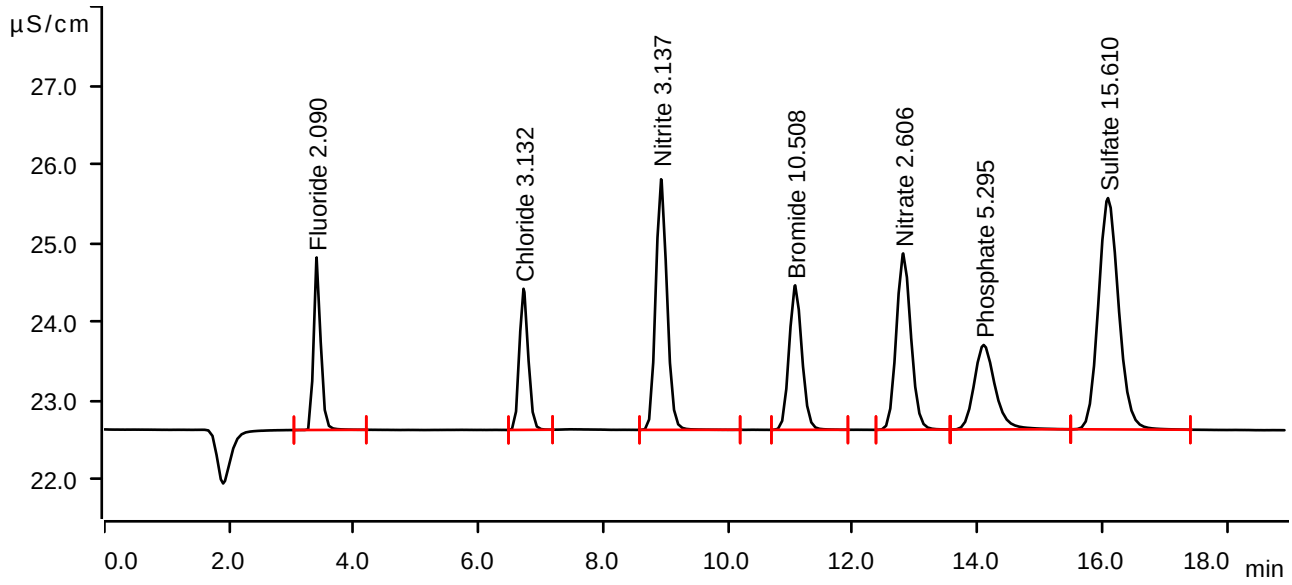
Sample data

Ident	CCV
Sample type	Check standard 1
Determination start	2025-01-16 12:38:18 UTC-5
Method	IC1-121824
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	12.11	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.403	0.2888	2.189	2.090	Fluoride
2	6.720	0.2936	1.791	3.132	Chloride
3	8.927	0.6647	3.180	3.137	Nitrite
4	11.077	0.4378	1.833	10.508	Bromide
5	12.808	0.6081	2.237	2.606	Nitrate
6	14.098	0.4183	1.072	5.295	Phosphate
7	16.092	1.1066	2.936	15.610	Sulfate

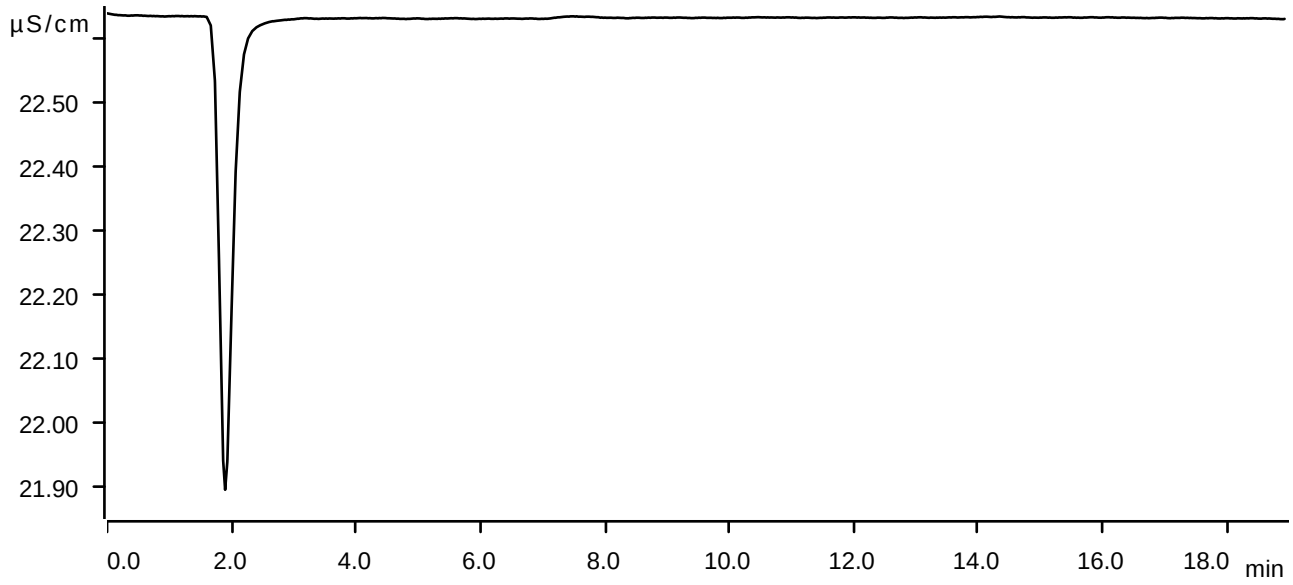
Sample data

Ident	CCB	
Sample type	Sample	
Determination start	2025-01-16 12:59:48 UTC-5	
Method	IC1-121824	
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	12.05	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



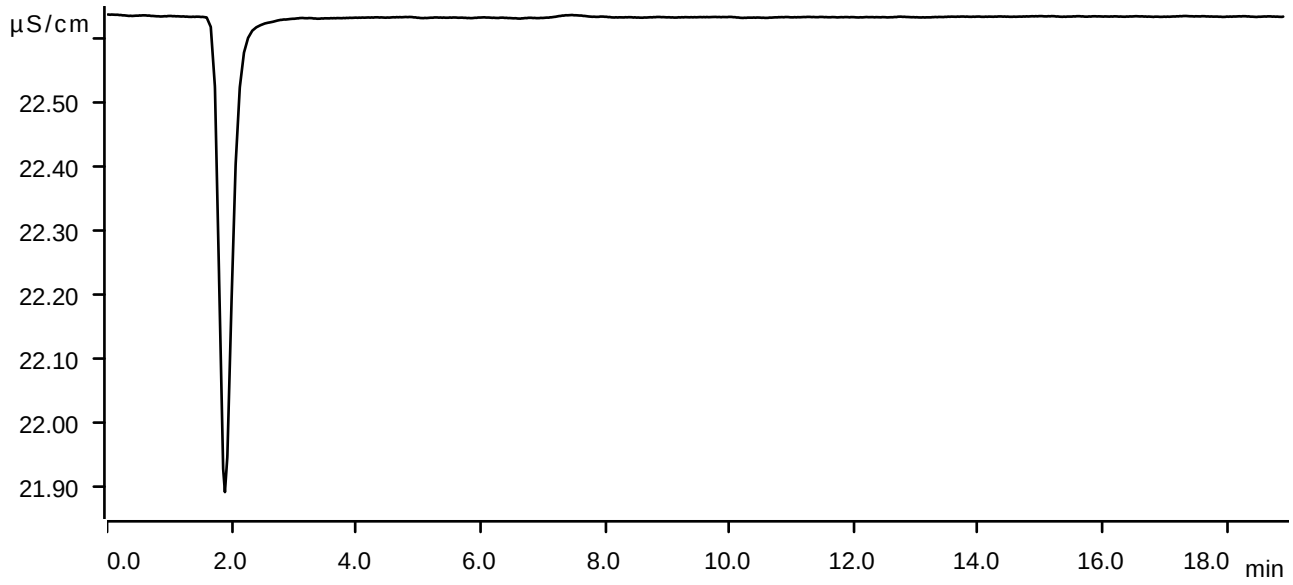
Sample data

Ident	LB134312BLW
Sample type	Sample
Determination start	2025-01-16 13:21:18 UTC-5
Method	IC1-121824
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	11.77	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



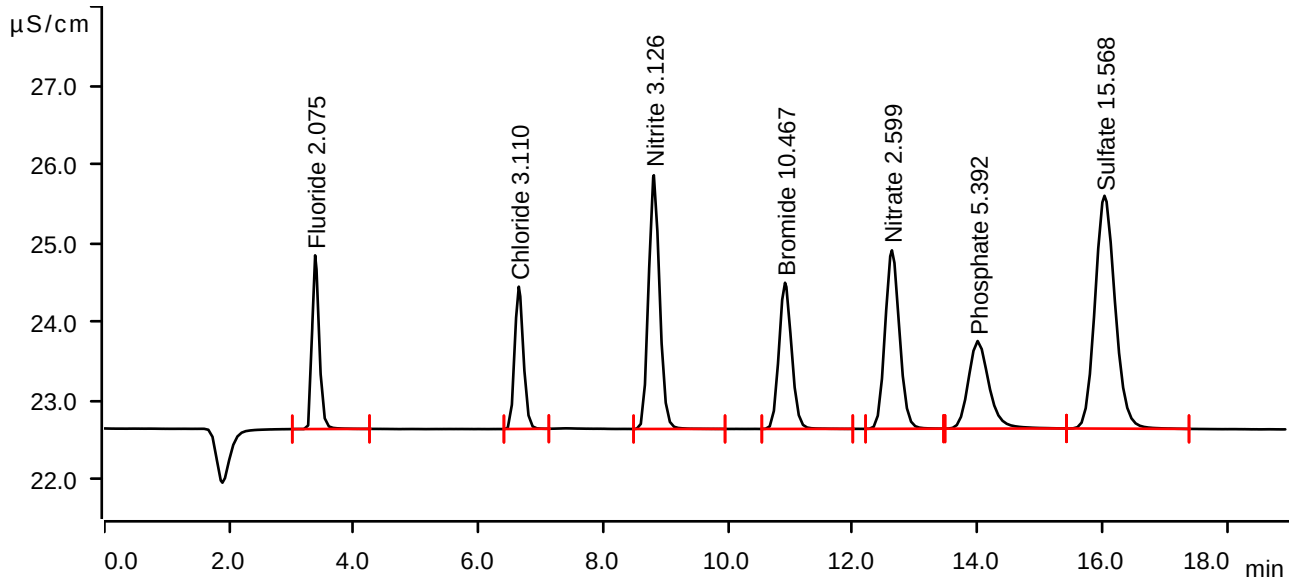
Sample data

Ident	LB134312BSW
Sample type	Check standard 1
Determination start	2025-01-16 13:42:49 UTC-5
Method	IC1-121824
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	11.94	MPa
Maximum pressure monitored	yes	
Temperature	-----	°C

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.380	0.2867	2.204	2.075	Fluoride
2	6.645	0.2914	1.806	3.110	Chloride
3	8.810	0.6622	3.220	3.126	Nitrite
4	10.913	0.4360	1.855	10.467	Bromide
5	12.627	0.6063	2.265	2.599	Nitrate
6	14.002	0.4268	1.111	5.392	Phosphate
7	16.035	1.1033	2.955	15.568	Sulfate

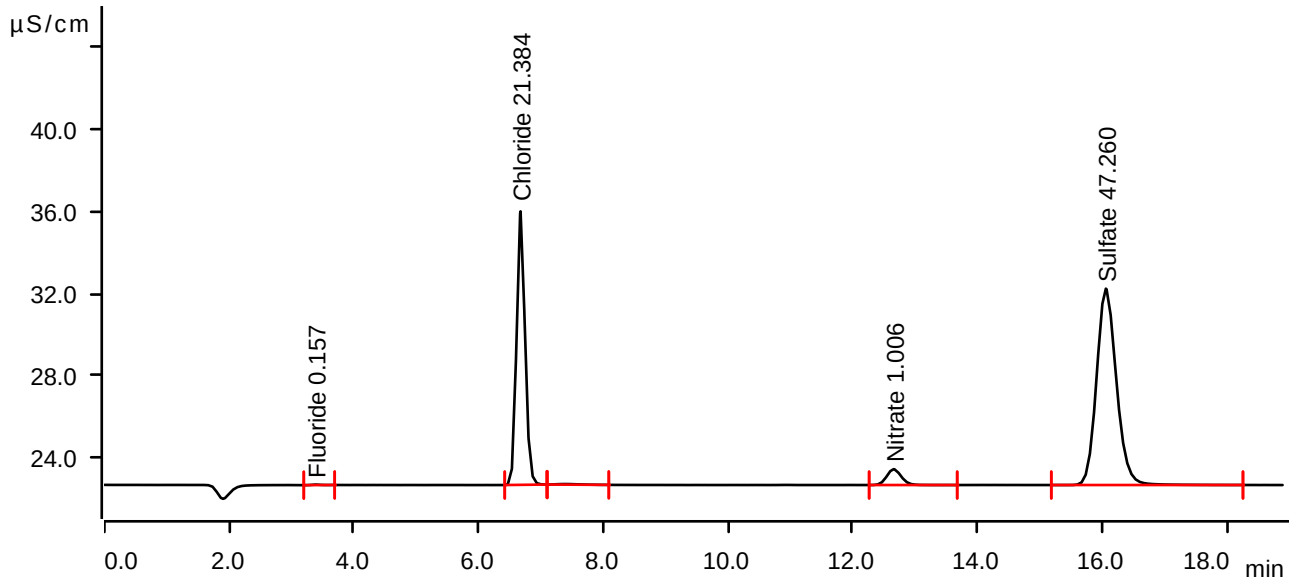
Sample data

Ident	Q1109-02
Sample type	Sample
Determination start	2025-01-16 14:04:21 UTC-5
Method	IC1-121824
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 min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.385	0.0033	0.024	0.157	Fluoride
2	6.673	2.1021	13.349	21.384	Chloride
3	7.370	0.0128	0.030	invalid	
4	12.655	0.2094	0.774	1.006	Nitrate
5	16.057	3.5293	9.584	47.260	Sulfate

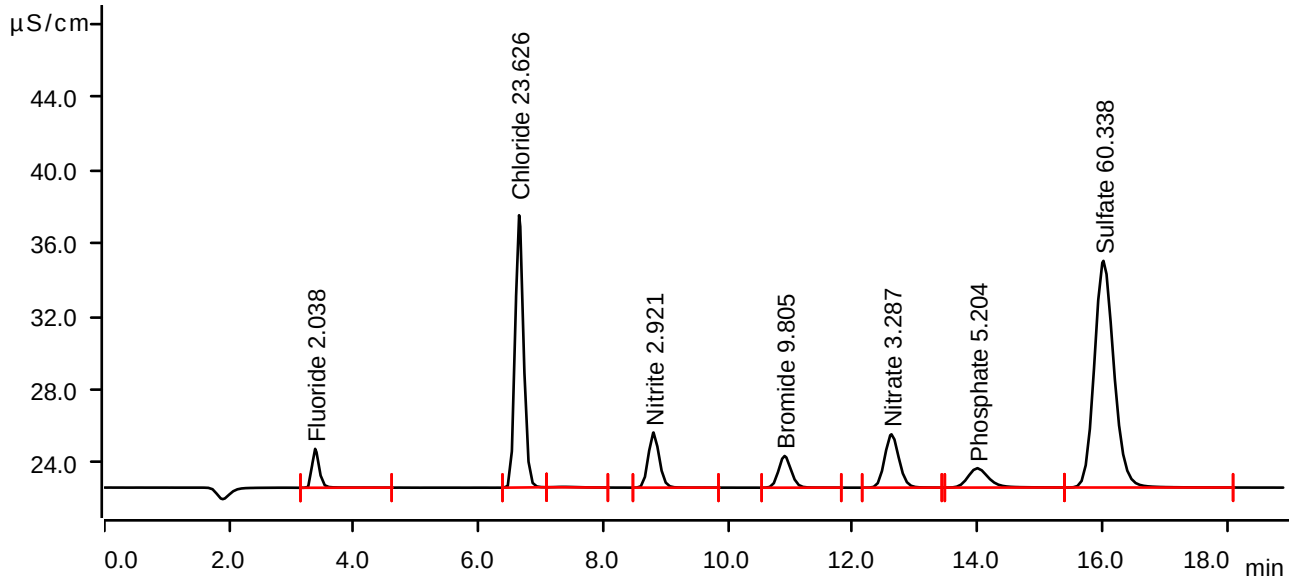
Sample data

Ident	Q1109-02MS
Sample type	Sample
Determination start	2025-01-16 14:25:54 UTC-5
Method	IC1-121824
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 min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.380	0.2812	2.127	2.038	Fluoride
2	6.650	2.3243	14.884	23.626	Chloride
3	7.355	0.0106	0.026	invalid	
4	8.805	0.6160	3.014	2.921	Nitrite
5	10.907	0.4067	1.732	9.805	Bromide
6	12.620	0.7778	2.916	3.287	Nitrate
7	13.997	0.4103	1.058	5.204	Phosphate
8	16.018	4.5304	12.391	60.338	Sulfate

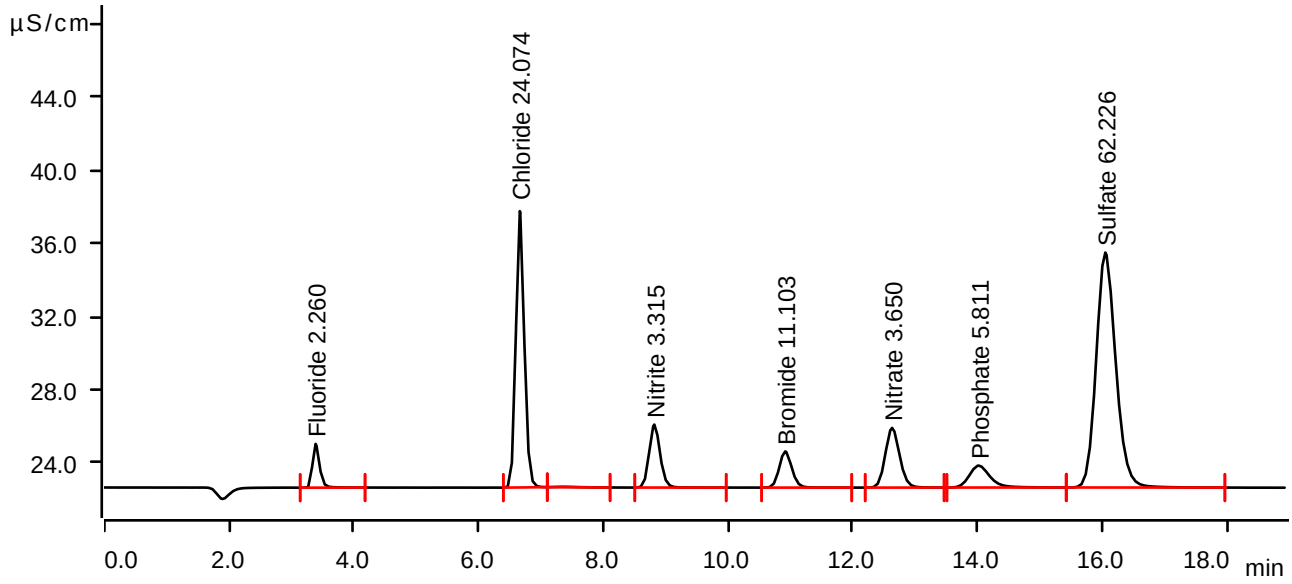
Sample data

Ident	Q1109-02MSD
Sample type	Sample
Determination start	2025-01-16 14:47:28 UTC-5
Method	IC1-121824
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 min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.387	0.3139	2.393	2.260	Fluoride
2	6.662	2.3686	15.105	24.074	Chloride
3	7.360	0.0103	0.025	invalid	
4	8.818	0.7050	3.443	3.315	Nitrite
5	10.917	0.4641	1.978	11.103	Bromide
6	12.630	0.8682	3.263	3.650	Nitrate
7	14.018	0.4636	1.200	5.811	Phosphate
8	16.048	4.6749	12.843	62.226	Sulfate

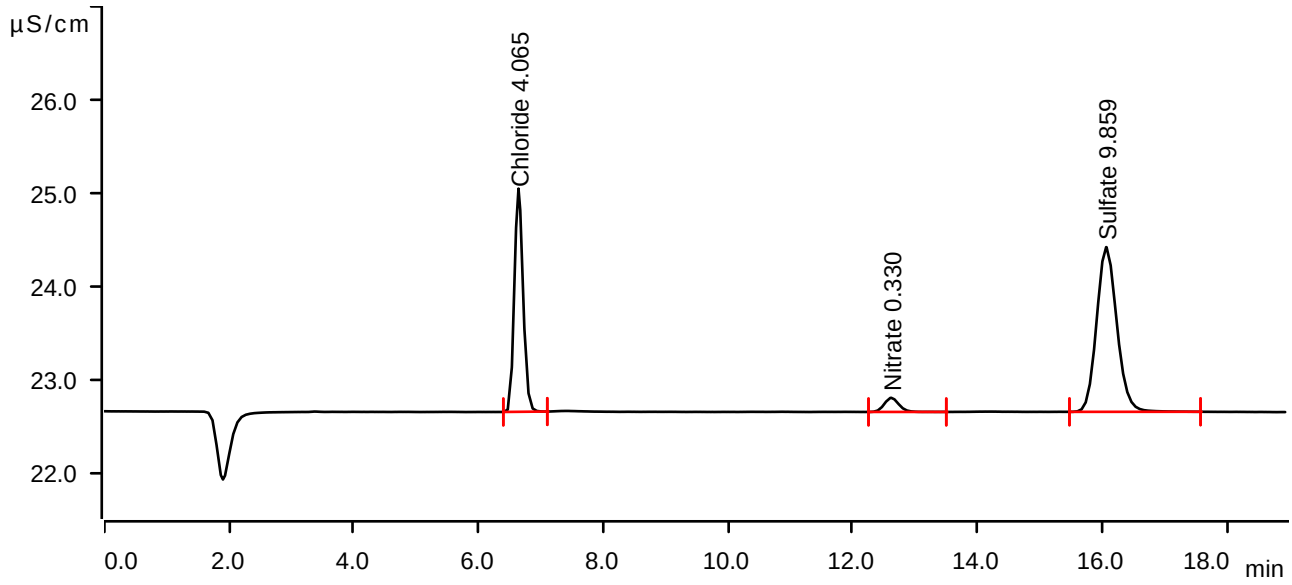
Sample data

Ident	Q1109-02DLX5
Sample type	Sample
Determination start	2025-01-16 15:09:02 UTC-5
Method	IC1-121824
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 min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	6.640	0.3860	2.397	4.065	Chloride
2	12.617	0.0412	0.152	0.330	Nitrate
3	16.062	0.6664	1.769	9.859	Sulfate

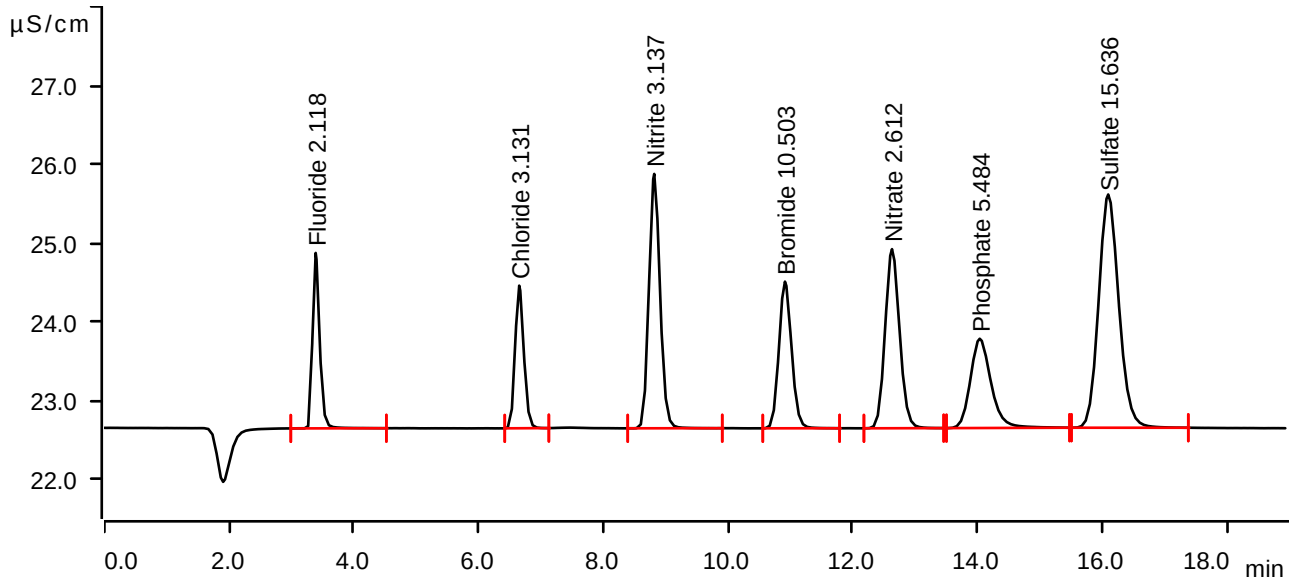
Sample data

Ident	CCV
Sample type	Check standard 1
Determination start	2025-01-16 15:30:37 UTC-5
Method	IC1-121824
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 min	Area (µS/cm) x min	Height µS/cm	Concentration ppm	Component name
1	3.388	0.2930	2.226	2.118	Fluoride
2	6.652	0.2936	1.810	3.131	Chloride
3	8.817	0.6647	3.228	3.137	Nitrite
4	10.912	0.4376	1.861	10.503	Bromide
5	12.628	0.6096	2.273	2.612	Nitrate
6	14.035	0.4349	1.133	5.484	Phosphate
7	16.095	1.1086	2.960	15.636	Sulfate

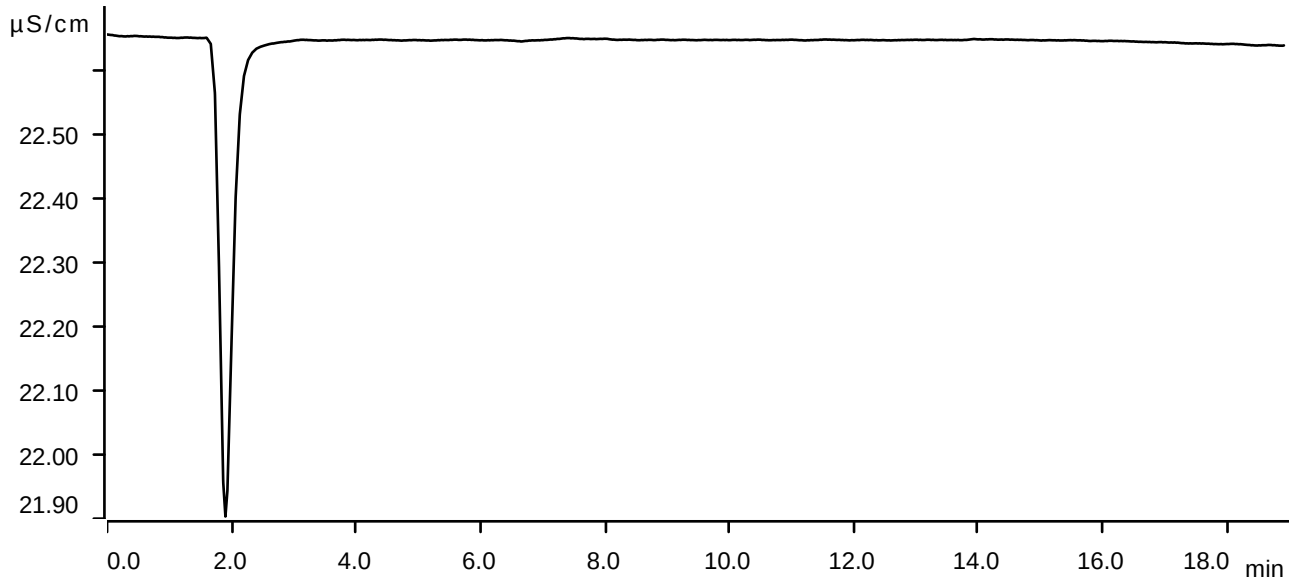
Sample data

Ident	CCB
Sample type	Sample
Determination start	2025-01-16 15:52:07 UTC-5
Method	IC1-121824
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



LB134312

WORKLIST(Hardcopy Internal Chain)

WorkList Name : ANIONS-01162025 **WorkList ID :** 186961 **Department :** Wet-Chemistry **Date :** 01-16-2025 11:26:54

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1109-02	TAPIAL1-MW04S-011525-00-T2	Water	Anions Group5	Cool 4 deg C	WEST04	M11	01/15/2025	9056A

Date/Time 01.16.2025, 11:40
Raw Sample Received by: NF(WC)
Raw Sample Relinquished by: [signature]

Date/Time 01.16.2025, 15:0[illegible]
Raw Sample Received by: [signature] (Cool C.)
Raw Sample Relinquished by: NF (WC)

Sample Results Report Print Date/Time: 2025/01/17 14:26:54

Sample ID	Result	Std. Dev.	RSD	Mode	ALT
CCV1	10.2496	0.0371	0.36	TOC	
CCB1	0.1792	0.0574	32.06	TOC	
LB134317BLW	0.1883	0.0578	30.68	TOC	
LB134317BSW.....	10.3433...	0.0667..	0.64...	TOC	..
Q1109-01	0.9801	0.1059	10.81	TOC	
Q1109-01MS	10.4809	0.1385	1.32	TOC	
Q1109-01MSD.....	10.6472...	0.1628..	1.53...	TOC	..
Q1109-02	1.2067	0.1076	8.92	TOC	
Q1120-01	0.7710	0.0976	12.66	TOC	
CCV2.....	10.1667...	0.0427..	0.42...	TOC	..
CCB2	0.2416	0.0130	5.38	TOC	

Sample Results Report Print Date/Time: 2025/01/17 14:26:54

Method ID	Sample Type	Vial	Timestamp	Message
TOC 0 - 20 ppmC	Sample	11	2025/01/17 09:00	
TOC 0 - 20 ppmC	Sample	12	2025/01/17 09:24	Low Sample Detected
TOC 0 - 20 ppmC	Sample	13	2025/01/17 09:48	Low Sample Detected
TOC 0 - 20 ppmC	...Sample	.. 14..	2025/01/17 10:14	..
TOC 0 - 20 ppmC	Sample	15	2025/01/17 10:39	
TOC 0 - 20 ppmC	Sample	16	2025/01/17 11:06	
TOC 0 - 20 ppmC	...Sample	.. 16..	2025/01/17 11:33	..
TOC 0 - 20 ppmC	Sample	17	2025/01/17 11:58	
TOC 0 - 20 ppmC	Sample	18	2025/01/17 12:24	
TOC 0 - 20 ppmC	...Sample	.. 11..	2025/01/17 12:50	..
TOC 0 - 20 ppmC	Sample	12	2025/01/17 13:14	Low Sample Detected

Detailed Analysis Report Print Date/Time: 2025/01/17 14:27:57

Sample ID: CCV1 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 09:00
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.2391	5.1195	414528	-3.083	-2.884	162
2	10.2080	5.1040	413272	-3.043	-2.844	161
3	10.2541	5.1271	415138	-3.074	-2.877	157
4	10.2973	5.1487	416888	-3.119	-2.921	161

<<<Statistics>>> Mean: 10.2496 Std Dev: 0.0371 RSD: 0.36

Sample ID: CCB1 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 09:24
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.1126	0.0563	4560	-3.242	-3.190	120
2	0.1510	0.0755	6113	-3.284	-3.188	120
3	0.2172	0.1086	8793	-3.285	-3.151	120
4	0.2360	0.1180	9554	-3.272	-3.167	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.1792 Std Dev: 0.0574 RSD: 32.06

Sample ID: LB134317BLW Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 09:48
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.1321	0.0661	5350	-3.332	-3.304	120
2	0.1971	0.0985	7979	-3.344	-3.305	120
3	0.1589	0.0794	6432	-3.358	-3.313	120
4	0.2652	0.1326	10738	-3.368	-3.281	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.1883 Std Dev: 0.0578 RSD: 30.68

Sample ID: LB134317BSW Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 10:14
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.2472	5.1236	414857	-3.316	-3.117	161
2	10.3552	5.1776	419231	-3.288	-3.089	157
3	10.3997	5.1999	421033	-3.301	-3.102	162
4	10.3711	5.1855	419872	-3.304	-3.107	161

<<<Statistics>>> Mean: 10.3433 Std Dev: 0.0667 RSD: 0.64

Sample ID: Q1109-01 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 10:39
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.0698	0.5349	43309	-3.349	-3.150	148
2	0.9881	0.4940	40001	-3.360	-3.161	147
3	1.0332	0.5166	41828	-3.388	-3.188	147
4	0.8293	0.4146	33574	-3.346	-3.146	146

<<<Statistics>>> Mean: 0.9801 Std Dev: 0.1059 RSD: 10.81

Sample ID: Q1109-01MS Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 11:06
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.6558	5.3279	431401	-3.392	-3.193	170
2	10.3447	5.1724	418807	-3.322	-3.124	162
3	10.3998	5.1999	421034	-3.357	-3.160	163
4	10.5233	5.2616	426034	-3.359	-3.160	164

<<<Statistics>>> Mean: 10.4809 Std Dev: 0.1385 RSD: 1.32

Sample ID: Q1109-01MSD Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 11:33
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.8470	5.4235	439139	-3.352	-3.152	180
2	10.7098	5.3549	433587	-3.292	-3.094	164
3	10.4915	5.2457	424747	-3.296	-3.098	162
4	10.5405	5.2703	426734	-3.292	-3.093	162

<<<Statistics>>> Mean: 10.6472 Std Dev: 0.1628 RSD: 1.53

Sample ID: Q1109-02 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 11:58
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.3662	0.6831	55310	-3.360	-3.163	151
2	1.1458	0.5729	46388	-3.337	-3.138	146
3	1.1766	0.5883	47636	-3.372	-3.176	147
4	1.1382	0.5691	46080	-3.364	-3.165	147

<<<Statistics>>> Mean: 1.2067 Std Dev: 0.1076 RSD: 8.92

Sample ID: Q1120-01 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 12:24

Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.8750	0.4375	35423	-3.371	-3.172	142
2	0.7127	0.3563	28852	-3.420	-3.220	143
3	0.6665	0.3332	26982	-3.454	-3.256	142
4	0.8297	0.4148	33590	-3.499	-3.300	146

<<<Statistics>>> Mean: 0.7710 Std Dev: 0.0976 RSD: 12.66

Sample ID: CCV2 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/17 12:50
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.1530	5.0765	411045	-3.443	-3.244	162
2	10.1211	5.0605	409752	-3.412	-3.214	165
3	10.2231	5.1115	413881	-3.408	-3.208	160
4	10.1698	5.0849	411724	-3.368	-3.168	157

<<<Statistics>>> Mean: 10.1667 Std Dev: 0.0427 RSD: 0.42

Sample ID: CCB2 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01170748
Cal. Curve: TOC
WATER 0-20PPM Timestamp: 2025/01/17 13:14
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.2307	0.1154	9341	-3.405	-3.290	120
2	0.2326	0.1163	9416	-3.401	-3.315	120
3	0.2443	0.1221	9889	-3.397	-3.290	120
4	0.2589	0.1294	10481	-3.390	-3.282	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.2416 Std Dev: 0.0130 RSD: 5.38

Sample Results Report Print Date/Time: 2025/01/16 9:01:38

Sample ID	Result	Std. Dev.	RSD	Mode	ALT
0.0PPM	6185	3006	48.60	TOC	
0.5PPM	27483	1110	4.04	TOC	
1.0PPM	48542	2267	4.67	TOC	
2.0PPM.....	88813...	1411..	1.59...	TOC	..
5.0PPM	211496	3458	1.64	TOC	
10.0PPM	411122	7732	1.88	TOC	
20.0PPM.....	817303...	2573..	0.31...	TOC	..
ICV1	10.3687	0.1121	1.08	TOC	
ICB1	0.2017	0.0756	37.49	TOC	
IC-20.....	0.1397...	0.0636..	45.51...	TOC	..
IC-R	0.1587	0.0461	29.04	TOC	

Sample Results Report Print Date/Time: 2025/01/16 9:01:38

Method ID	Sample Type	Vial	Timestamp	Message
TOC 0 - 20 ppmC	TOC Standard	1	2025/01/15 12:17	Low Sample Detected
TOC 0 - 20 ppmC	TOC Standard	2	2025/01/15 12:42	
TOC 0 - 20 ppmC	TOC Standard	3	2025/01/15 13:07	
TOC 0 - 20 ppmC	...TOC Standard ..	4..	2025/01/15 13:33 ..	
TOC 0 - 20 ppmC	TOC Standard	5	2025/01/15 13:59	
TOC 0 - 20 ppmC	TOC Standard	6	2025/01/15 14:26	
TOC 0 - 20 ppmC	...TOC Standard ..	7..	2025/01/15 14:53 ..	
TOC 0 - 20 ppmC	Sample	6	2025/01/15 15:19	
TOC 0 - 20 ppmC	Sample	12	2025/01/15 15:43	Low Sample Detected
TOC 0 - 20 ppmC	...Sample ..	13..	2025/01/15 16:07	..Low Sample Detected
TOC 0 - 20 ppmC	Sample	12	2025/01/15 16:30	Low Sample Detected

Detailed Analysis Report Print Date/Time: 2025/01/16 9:02:33

Sample ID: 0.0PPM Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 12:17
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1841	-2.962	-2.971	120
2			7628	-3.026	-2.981	120
3			6649	-3.024	-2.958	120
4			8622	-3.018	-2.947	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 6185 Std Dev: 3006 RSD: 48.60

Sample ID: 0.5PPM Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 12:42
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			27356	-3.041	-2.843	139
2			28982	-3.039	-2.840	141
3			26302	-3.017	-2.820	138
4			27292	-3.026	-2.827	139

<<<Statistics>>> Mean: 27483 Std Dev: 1110 RSD: 4.04

Sample ID: 1.0PPM Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151155
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 13:07
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			46164	-3.002	-2.807	143
2			51286	-3.017	-2.818	145
3			47317	-2.991	-2.795	143
4			49400	-2.987	-2.788	144

<<<Statistics>>> Mean: 48542 Std Dev: 2267 RSD: 4.67

Sample ID: 2.0PPM Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151309
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 13:33
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			89840	-2.974	-2.774	150
2			88187	-2.938	-2.739	145
3			87121	-2.925	-2.728	148
4			90103	-2.943	-2.745	150

<<<Statistics>>> Mean: 88813 Std Dev: 1411 RSD: 1.59

Sample ID: 5.0PPM Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151309
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 13:59
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			213032	-2.923	-2.726	159
2			206481	-2.832	-2.632	155
3			214311	-2.864	-2.669	157
4			212162	-2.841	-2.642	156

<<<Statistics>>> Mean: 211496 Std Dev: 3458 RSD: 1.64

Sample ID: 10.0PPM Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151309
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 14:26
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			400085	-2.807	-2.610	142
2			415561	-2.803	-2.603	162
3			411583	-2.777	-2.577	163
4			417257	-2.811	-2.611	164

<<<Statistics>>> Mean: 411122 Std Dev: 7732 RSD: 1.88

Sample ID: 20.0PPM Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151309
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 14:53
Operator ID: NF IZ Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			813925	-2.829	-2.632	177
2			819370	-2.836	-2.639	186
3			816671	-2.784	-2.585	170
4			819245	-2.792	-2.592	167

<<<Statistics>>> Mean: 817303 Std Dev: 2573 RSD: 0.31

Sample ID: ICV1 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151309
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 15:19
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.3813	5.1906	420285	-2.799	-2.599	166
2	10.2898	5.1449	416583	-2.760	-2.560	165
3	10.2812	5.1406	416233	-2.764	-2.566	161
4	10.5226	5.2613	426009	-2.781	-2.584	161

<<<Statistics>>> Mean: 10.3687 Std Dev: 0.1121 RSD: 1.08

Sample ID: ICB1 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151309
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 15:43
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.1020	0.0510	4131	-2.785	-2.738	120
2	0.2012	0.1006	8145	-2.809	-2.743	120
3	0.2187	0.1094	8855	-2.803	-2.725	120
4	0.2849	0.1425	11535	-2.810	-2.721	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.2017 Std Dev: 0.0756 RSD: 37.49

Sample ID: IC-20 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 01151309
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 16:07
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.0727	0.0364	2944	-2.769	-2.766	120
2	0.1400	0.0700	5666	-2.789	-2.763	120
3	0.2250	0.1125	9108	-2.792	-2.701	120
4	0.1209	0.0605	4896	-2.763	-2.755	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.1397 Std Dev: 0.0636 RSD: 45.51

Sample ID: IC-R Mode: TOC
Method:
TOC 0 - 20 ppmC Filename: 01151309
Cal. Curve: TOC WATER 0-20PPM Timestamp: 2025/01/15 16:30
Operator ID: NF IZ Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.0924	0.0462	3742	-2.733	-2.739	120
2	0.1992	0.0996	8064	-2.788	-2.739	120
3	0.1732	0.0866	7014	-2.775	-2.722	120
4	0.1700	0.0850	6884	-2.758	-2.719	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 0.1587 Std Dev: 0.0461 RSD: 29.04

Calibration Report Print Date/Time: 2025/01/15 14:57:01

Cal. Curve ID: TOC WATER 0-20PPM
Created: 2025/01/15 14:54
Calibration Factor (m): 8.097e+04
Y Intercept (b): 7467
r-squared: 0.99999

Re

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
0.0PPM	6185	0.000	-0.016	-	2025/01/15 12:17
0.5PPM	27483	0.250	0.247	-1.2	2025/01/15 12:42
1.0PPM	48542	0.500	0.507	1.4	2025/01/15 13:07
2.0PPM	88813	1.000	1.005	0.5	2025/01/15 13:33
5.0PPM	211497	2.500	2.520	0.8	2025/01/15 13:59
10.0PPM	411122	5.000	4.985	-0.3	2025/01/15 14:26
20.0PPM	817303	10.000	10.002	0.0	2025/01/15 14:53

NF
01.15.2025

LB134317

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TOC W-01172025 **WorkList ID :** 186970 **Department :** Wet-Chemistry **Date :** 01-17-2025 08:00:16

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1109-01	TAPIAL1-MW04I-011525-00-T3	Water	TOC	Conc H2SO4 to pH < 2	WEST04	M11	01/15/2025	9060A

Date/Time 01.17.2025 09:30

Raw Sample Received by: NF (LW C)

Raw Sample Relinquished by:

Date/Time 01.17.2025 12:3

Raw Sample Received by: NF LW C

Raw Sample Relinquished by: NF LW C

LB134325

Test results — Aquakem 7.2AQ1 — Page: 1

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

1/17/2025 12:19 — Reviewed by : RM — Instrument ID : Konelab

Test: Ammonia-N

Sample Id	Result	Dil.	1 +	Response	Errors
ICV1	1.009	0.0		0.148	
ICB1	0.014	0.0		0.018	
CCV1	0.998	0.0		0.147	
CCB1	0.013	0.0		0.018	
RL CHECK	0.107	0.0		0.030	107% (50—150) 01/17/2025 RM
PB166092BL	0.010	0.0		0.017	
PB166092BS	0.986	0.0		0.145	
Q1109-02	0.015	0.0		0.018	
Q1113-01	3.361	0.0		0.457	Test limit high
Q1113-01DUP	3.287	0.0		0.447	Test limit high
Q1113-01MS	4.325	0.0		0.583	Test limit high
Q1113-01MSD	4.091	0.0		0.553	Test limit high
Q1113-03	1.602	0.0		0.226	
Q1113-05	3.321	0.0		0.452	Test limit high
CCV2	1.006	0.0		0.148	
CCB2	0.011	0.0		0.017	
Q1120-01	0.061	0.0		0.024	
CCV3	1.056	0.0		0.155	
CCB3	0.009	0.0		0.017	
Q1113-01DLX2	1.662	0.0		0.234	
Q1113-05DLX2	1.726	0.0		0.242	
CCV4	1.020	0.0		0.150	
CCB4	0.014	0.0		0.018	

N	23
Mean	1.291
SD	1.4252
CV%	110.35

Aquakem v. 7.2AQ1
Results from time period:
Fri Jan 17 10:42:26 2025
Fri Jan 17 12:14:23 2025

Sample Id	Sam/Ctr/cA	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A		Ammonia-N P	-0.0052	mg/l	1/17/2025 10:42:26	
0.1PPM	A		Ammonia-N P	0.1122	mg/l	1/17/2025 10:42:27	
0.2PPM	A		Ammonia-N P	0.197	mg/l	1/17/2025 10:42:28	
0.4PPM	A		Ammonia-N P	0.4025	mg/l	1/17/2025 10:42:29	
1.0PPM	A		Ammonia-N P	1.0228	mg/l	1/17/2025 10:42:30	
1.3PPM	A		Ammonia-N P	1.2819	mg/l	1/17/2025 10:42:31	
2.0PPM	A		Ammonia-N P	2.022	mg/l	1/17/2025 10:42:32	
ICV1	S		Ammonia-N P	1.0088	mg/l	1/17/2025 11:34:05	
ICB1	S		Ammonia-N P	0.0144	mg/l	1/17/2025 11:34:06	
CCV1	S		Ammonia-N P	0.9983	mg/l	1/17/2025 11:34:09	
CCB1	S		Ammonia-N P	0.0129	mg/l	1/17/2025 11:34:11	
RL CHECK	S		Ammonia-N P	0.1066	mg/l	1/17/2025 11:34:13	
PB166092BL	S		Ammonia-N P	0.0099	mg/l	1/17/2025 11:34:15	
PB166092BS	S		Ammonia-N P	0.9863	mg/l	1/17/2025 11:44:45	
Q1109-02	S		Ammonia-N P	0.015	mg/l	1/17/2025 11:44:47	
Q1113-01	S		Ammonia-N P	3.3605	mg/l	1/17/2025 11:44:50	
Q1113-01DUP	S		Ammonia-N P	3.2866	mg/l	1/17/2025 11:44:51	
Q1113-01MS	S		Ammonia-N P	4.3251	mg/l	1/17/2025 11:44:52	
Q1113-01MSD	S		Ammonia-N P	4.0912	mg/l	1/17/2025 11:44:53	
Q1113-03	S		Ammonia-N P	1.6025	mg/l	1/17/2025 11:44:54	
Q1113-05	S		Ammonia-N P	3.3212	mg/l	1/17/2025 11:44:55	
CCV2	S		Ammonia-N P	1.0058	mg/l	1/17/2025 11:44:56	
CCB2	S		Ammonia-N P	0.0114	mg/l	1/17/2025 11:53:11	
Q1120-01	S		Ammonia-N P	0.0613	mg/l	1/17/2025 11:53:12	
CCV3	S		Ammonia-N P	1.0562	mg/l	1/17/2025 11:53:13	
CCB3	S		Ammonia-N P	0.0086	mg/l	1/17/2025 11:53:16	
Q1113-01DLX2	S		Ammonia-N P	1.6618	mg/l	1/17/2025 12:14:17	
Q1113-05DLX2	S		Ammonia-N P	1.7262	mg/l	1/17/2025 12:14:19	
CCV4	S		Ammonia-N P	1.0196	mg/l	1/17/2025 12:14:20	
CCB4	S		Ammonia-N P	0.0143	mg/l	1/17/2025 12:14:23	

Calibration results Aquakem 7.2AQ1 Page: 1

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

1/17/2025 10:55 Reviewed by : RM Instrument ID : Konelab

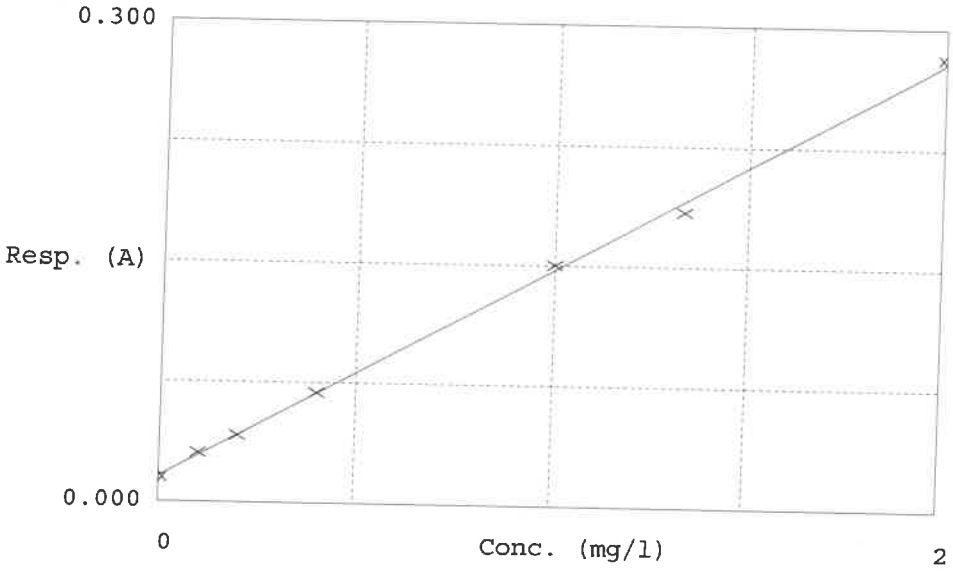
Test Ammonia-N

Accepted 1/17/2025 10:55

Factor 7.622
Bias 0.016

Coeff. of det. 0.998861

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.015	-0.0052	0.0000	-
2	NH3-2PPM	0.031	0.1122	0.1000	12.2
3	NH3-2PPM	0.042	0.1970	0.2000	-1.5
4	NH3-2PPM	0.069	0.4025	0.4000	0.6
5	NH3-2PPM	0.150	1.0228	1.0000	2.3
6	NH3-2PPM	0.184	1.2819	1.3333	-1.4
7	NH3-2PPM	0.281	2.0220	2.0000	1.1

01/17/2025
RM

Extraction and Analytical Summary Report

Analysis Method: 1664A
Test: Oil and Grease
Run Number: LB134347
Analysis Date: 01/20/2025
BalanceID: WC SC-6
OvenID: EXT OVEN-3

ANALYST: jignesh
REVIEWED BY: Iwona
Extraction Date: 01/20/2025
Extration IN Time: 14:52
Extration OUT Time: 15:30
Thermometer ID: EXT OVEN#3

Dish #	Lab ID	Client ID	Matrix	pH	Sample Vol (ml)	Final Volume (ml)	Empty Dish Weight (g)	Final Empty Dish Weight(g)	Silica Gel Weight(g)	Weight After Drying(g)	Final Weight After Drying(g)	Change Weight (g)	Result in ppm
1	LB134347BL	LB134347BL	WATER	1.3	1000	100	2.7453	2.7453	0	2.7454	2.7454	0.0001	0.1
2	LB134347BS	LB134347BS	WATER	1.3	1000	100	2.9306	2.9306	0	2.9475	2.9475	0.0169	16.9
3	LB134347BSD	LB134347BSD	WATER	1.3	1000	100	3.1558	3.1558	0	3.1729	3.1729	0.0171	17.1
4	Q1109-02	TAPIAL1-MW04S-011525-0	WATER	1.3	1000	100	3.0629	3.0629	0	3.0631	3.0631	0.0002	0.2

QC Batch# LB134347 **Test:** Oil and Grease **Analysis Date:** 01/20/2025

Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3153
pH Paper 0-14	M6069
Sodium Sulfate	EP2580
1:1 HCL	WP110826
Silica Gel	NA
Sand	NA

Standards Used:

Standard Name	Amount Used	Standard Lot #
LCSW	2.5 ML	WP100827
LCSWD	2.5 ML	WP100828
MS/MSD	NA	NA

BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

Before Analysis

0.0020 gram Balance: 0.0018 **(0.0018-0.0022)**
1.0000 gram Balance: 1.0005 **(0.9950-1.0050)**
Bal Check Time: 15:10

In OVEN TEMP1 : 70 °C **Dessicator Time In1 :** 16:46
In Time1: 16:00
Out OVEN TEMP1: 70 °C **Dessicator Time Out1:** 17:15
Out Time1: 16:45

After Analysis

0.0020 gram Balance: 0.0021 **(0.0018-0.0022)**
1.0000 gram Balance: 1.0004 **(0.9950-1.0050)**
Bal Check Time: 19:01

In OVEN TEMP2 : 71 °C **Dessicator Time In2 :** 18:16
In Time2: 17:37
Out OVEN TEMP2: 70 °C **Dessicator Time Out2:** 19:00
Out Time2: 18:15

WORKLIST(Hardcopy Internal Chain)

LB134347

WorkList Name : oil & grease Q1109 **WorkList ID :** 187030 **Department :** Wet-Chemistry **Date :** 01-20-2025 14:39:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1109-02 -R	TAPIAL1-MW04S-011525-00-T2	Water	Oil and Grease	Conc H2SO4 to pH < 2	WEST04	M11	01/15/2025	1664A

Date/Time 01/20/25 14:45
Raw Sample Received by: JP (WC)
Raw Sample Relinquished by: SM

Date/Time 01/20/25 18:00
Raw Sample Received by: SM
Raw Sample Relinquished by: JP (WC)

Alliance TECHNICAL GROUP

Water Ammonia Preparation Sheet

PB166092

SOP ID : MSM4500-NH3 B,G-Ammonia-17

SDG No : N/A

Matrix : WATER

Pippete ID : WC

Balance ID : N/A

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : N/A

Start Digest Date: 01/17/2025 **Time :** 08:45 **Temp :** 150 °C

End Digest Date: 01/17/2025 **Time :** 09:45 **Temp :** 160 °C

II batch 01/17/2025 10:00 150 } RM
01/17/2025 11:00 160

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : WC CYANIDE

Prep Technician Signature: RM

Supervisor Signature: JR

Standared Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP111420
MS/MSD SPIKE SOL.	1.0ML	WP111419
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP111419
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP111325
NAOH 6N	0.5-2.0ML	WP111318
H2SO4 0.04N	5.0ML	WP110335
pH strip-Ammonia	N/A	W3133
KI-starch paper	N/A	W3155
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

Extraction Conformance/Non-Conformance Comments:

ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT
WP108814,

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01-17-2025 11:10	RM CWC	RM CWC
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Ammonia Preparation Sheet

PB166092

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB166092BL	PBW092	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB166092BS	LCS092	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1109-02	TAPIAL1-MW04S-011525-00-T2	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1113-01	DSN002	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1113-01DUP	DSN002DUP	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1113-01MS	DSN002MS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1113-01MSD	DSN002MSD	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1113-03	DSN001	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1113-05	DSN003	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q1120-01	RW10A-20250116	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : ammonia-1-16 **WorkList ID :** 186962 **Department :** Distillation **Date :** 01-16-2025 16:37:23

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1120-01	RW10A-20250116	Water	Ammonia		TETR06	M11	01/16/2025	SM4500-NH3
Q1109-02	TAPIAL1-MW04S-011525-00-T2	Water	Ammonia	Conc H2SO4 to pH < 2	WEST04	M11	01/15/2025	SM4500-NH3
Q1113-01	DSN002	Water	Ammonia	Conc H2SO4 to pH < 2	PSEG04	M11	01/16/2025	SM4500-NH3
Q1113-03	DSN001	Water	Ammonia	Conc H2SO4 to pH < 2	PSEG04	M11	01/16/2025	SM4500-NH3
Q1113-05	DSN003	Water	Ammonia	Conc H2SO4 to pH < 2	PSEG04	M11	01/16/2025	SM4500-NH3

Date/Time 01/17/2025 08.16

Raw Sample Received by: RM CWC1

Raw Sample Relinquished by: [signature]

Date/Time 01/17/2025 10.10

Raw Sample Received by: [signature]

Raw Sample Relinquished by: RM CWC1

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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134309

Review By	rubina	Review On	1/16/2025 3:45:11 PM
Supervise By	Iwona	Supervise On	1/16/2025 3:51:55 PM
SubDirectory	LB134309	Test	Hexavalent Chromium

STD. NAME	STD REF.#
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	WP111460,WP111459,WP111457,WP111456,WP111464,WP110380,WP111458,WP111463,WP111461,WP111462

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	01/16/25 13:00		rubina	OK
2	CAL2	CAL2	CAL	01/16/25 13:01		rubina	OK
3	CAL3	CAL3	CAL	01/16/25 13:02		rubina	OK
4	CAL4	CAL4	CAL	01/16/25 13:03		rubina	OK
5	CAL5	CAL5	CAL	01/16/25 13:04		rubina	OK
6	CAL6	CAL6	CAL	01/16/25 13:05		rubina	OK
7	CAL7	CAL7	CAL	01/16/25 13:06		rubina	OK
8	ICV	ICV	ICV	01/16/25 13:07		rubina	OK
9	ICB	ICB	ICB	01/16/25 13:08		rubina	OK
10	CCV1	CCV1	CCV	01/16/25 13:09		rubina	OK
11	CCB1	CCB1	CCB	01/16/25 13:10		rubina	OK
12	RL Check	RL Check	SAM	01/16/25 13:11		rubina	OK
13	LB134309BL	LB134309BL	MB	01/16/25 13:12		rubina	OK
14	LB134309BS	LB134309BS	LCS	01/16/25 13:13		rubina	OK
15	Q1109-02	TAPIAL1-MW04S-011	SAM	01/16/25 13:14		rubina	OK
16	Q1109-02DUP	TAPIAL1-MW04S-011	DUP	01/16/25 13:15		rubina	OK
17	Q1109-02MSD	TAPIAL1-MW04S-011	MSD	01/16/25 13:15		rubina	OK
18	Q1109-02MS	TAPIAL1-MW04S-011	MS	01/16/25 13:16		rubina	OK

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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134309

Review By	rubina	Review On	1/16/2025 3:45:11 PM
Supervise By	Iwona	Supervise On	1/16/2025 3:51:55 PM
SubDirectory	LB134309	Test	Hexavalent Chromium

STD. NAME	STD REF.#
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	WP111460,WP111459,WP111457,WP111456,WP111464,WP110380,WP111458,WP111463,WP111461,WP111462

19	CCV2	CCV2	CCV	01/16/25 13:16		rubina	OK
20	CCB2	CCB2	CCB	01/16/25 13:17		rubina	OK

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Instrument ID: IC-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134312

Review By	Niha	Review On	1/17/2025 9:33:21 AM
Supervise By	Iwona	Supervise On	1/17/2025 10:12:39 AM
SubDirectory	LB134312	Test	Anions

STD. NAME	STD REF.#
ICAL Standard	WP111131,WP111132,WP111133,WP111134,WP111135,WP111136,WP111137
ICV Standard	WP111138
CCV Standard	WP111465
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP111466
Chk Standard	WP111129,WP111130

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	STD1	STD1	CAL1	12/18/24 10:39	All standards, samples, and	NF/IZ	OK
2	STD2	STD2	CAL2	12/18/24 11:00	QC are filtered through	NF/IZ	OK
3	STD3	STD3	CAL3	12/18/24 11:22	0.45um, filter lot W3160	NF/IZ	OK
4	STD4	STD4	CAL4	12/18/24 11:43		NF/IZ	OK
5	STD5	STD5	CAL5	12/18/24 12:04		NF/IZ	OK
6	STD6	STD6	CAL6	12/18/24 12:26		NF/IZ	OK
7	STD7	STD7	CAL7	12/18/24 12:47		NF/IZ	OK
8	ICV1	ICV1	ICV	12/18/24 13:09		NF/IZ	OK
9	ICB1	ICB1	ICB	12/18/24 13:30		NF/IZ	OK
10	CCV1	CCV1	CCV	01/16/25 12:38		NF/IZ	OK
11	CCB1	CCB1	CCB	01/16/25 12:59		NF/IZ	OK
12	LB134312BLW	LB134312BLW	MB	01/16/25 13:21		NF/IZ	OK
13	LB134312BSW	LB134312BSW	LCS	01/16/25 13:42		NF/IZ	OK
14	Q1109-02	TAPIAL1-MW04S-011	SAM	01/16/25 14:04		NF/IZ	OK
15	Q1109-02MS	TAPIAL1-MW04S-011	MS	01/16/25 14:25	9.5ml of sample, 0.5mL W3091	NF/IZ	OK
16	Q1109-02MSD	TAPIAL1-MW04S-011	MSD	01/16/25 14:47	9.5ml of sample, 0.5mL W3091	NF/IZ	OK
17	Q1109-02DL	TAPIAL1-MW04S-011	SAM	01/16/25 15:09		NF/IZ	OK
18	CCV2	CCV2	CCV	01/16/25 15:30		NF/IZ	OK

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Instrument ID: IC-1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134312

Review By	Niha	Review On	1/17/2025 9:33:21 AM
Supervise By	Iwona	Supervise On	1/17/2025 10:12:39 AM
SubDirectory	LB134312	Test	Anions

STD. NAME	STD REF.#
ICAL Standard	WP111131,WP111132,WP111133,WP111134,WP111135,WP111136,WP111137
ICV Standard	WP111138
CCV Standard	WP111465
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP111466
Chk Standard	WP111129,WP111130

19	CCB2	CCB2	CCB	01/16/25 15:52		NF/IZ	OK

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Instrument ID: TOC

Daily Analysis Runlog For Sequence/QCBatch ID # LB134317

Review By	Niha	Review On	1/20/2025 9:53:15 AM
Supervise By	Iwona	Supervise On	1/20/2025 10:13:53 AM
SubDirectory	LB134317	Test	TOC

STD. NAME	STD REF.#
ICAL Standard	WP111441,WP111442,WP111443,WP111444,WP111445,WP111446
ICV Standard	WP111448
CCV Standard	WP111447
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP111448
Chk Standard	WP111453,WP111454,WP109953

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	01/15/25 12:17		NF IZ	OK
2	0.5PPM	0.5PPM	CAL2	01/15/25 12:42		NF IZ	OK
3	1.0PPM	1.0PPM	CAL3	01/15/25 13:07		NF IZ	OK
4	2.0PPM	2.0PPM	CAL4	01/15/25 13:33		NF IZ	OK
5	5.0PPM	5.0PPM	CAL5	01/15/25 13:59		NF IZ	OK
6	10.0PPM	10.0PPM	CAL6	01/15/25 14:26		NF IZ	OK
7	20.0PPM	20.0PPM	CAL7	01/15/25 14:53		NF IZ	OK
8	ICV1	ICV1	ICV	01/15/25 15:19		NF IZ	OK
9	ICB1	ICB1	ICB	01/15/25 15:43		NF IZ	OK
10	IC-20	IC-20	SAM	01/15/25 16:07		NF IZ	OK
11	IC-R	IC-R	SAM	01/15/25 16:30		NF IZ	OK
12	CCV1	CCV1	CCV	01/17/25 09:00		NF IZ	OK
13	CCB1	CCB1	CCB	01/17/25 09:24		NF IZ	OK
14	LB134317BLW	LB134317BLW	MB	01/17/25 09:48		NF IZ	OK
15	LB134317BSW	LB134317BSW	LCS	01/17/25 10:14		NF IZ	OK
16	Q1109-01	TAPIAL1-MW04I-0115	SAM	01/17/25 10:39		NF IZ	OK
17	Q1109-01MS	TAPIAL1-MW04I-0115	MS	01/17/25 11:06	2.0ml WP111439 +38.0ml Sample	NF IZ	OK
18	Q1109-01MSD	TAPIAL1-MW04I-0115	MSD	01/17/25 11:33	2.0ml WP111439 +38.0ml Sample	NF IZ	OK

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Instrument ID: TOC

Daily Analysis Runlog For Sequence/QCBatch ID # LB134317

Review By	Niha	Review On	1/20/2025 9:53:15 AM
Supervise By	Iwona	Supervise On	1/20/2025 10:13:53 AM
SubDirectory	LB134317	Test	TOC

STD. NAME	STD REF.#
ICAL Standard	WP111441,WP111442,WP111443,WP111444,WP111445,WP111446
ICV Standard	WP111448
CCV Standard	WP111447
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP111448
Chk Standard	WP111453,WP111454,WP109953

19	Q1109-02	TAPIAL1-MW04S-011	SAM	01/17/25 11:58		NF IZ	OK
20	Q1120-01	RW10A-20250116	SAM	01/17/25 12:24		NF IZ	OK
21	CCV2	CCV2	CCV	01/17/25 12:50		NF IZ	OK
22	CCB2	CCB2	CCB	01/17/25 13:14		NF IZ	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB134325

Review By	Niha	Review On	1/20/2025 9:49:35 AM
Supervise By	Iwona	Supervise On	1/20/2025 10:12:40 AM
SubDirectory	LB134325	Test	Ammonia

STD. NAME	STD REF.#
ICAL Standard	WP111470
ICV Standard	WP111472
CCV Standard	WP111471
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP111420
Chk Standard	WP110416,WP110019,WP111385,WP108840

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	01/17/25 10:42		rubina	OK
2	0.1PPM	0.1PPM	CAL2	01/17/25 10:42		rubina	OK
3	0.2PPM	0.2PPM	CAL3	01/17/25 10:42		rubina	OK
4	0.4PPM	0.4PPM	CAL4	01/17/25 10:42		rubina	OK
5	1.0PPM	1.0PPM	CAL5	01/17/25 10:42		rubina	OK
6	1.3PPM	1.3PPM	CAL6	01/17/25 10:42		rubina	OK
7	2.0PPM	2.0PPM	CAL7	01/17/25 10:42		rubina	OK
8	ICV1	ICV1	ICV	01/17/25 11:34		rubina	OK
9	ICB1	ICB1	ICB	01/17/25 11:34		rubina	OK
10	CCV1	CCV1	CCV	01/17/25 11:34		rubina	OK
11	CCB1	CCB1	CCB	01/17/25 11:34		rubina	OK
12	RL	RL	SAM	01/17/25 11:34		rubina	OK
13	PB166092BL	PB166092BL	MB	01/17/25 11:34		rubina	OK
14	PB166092BS	PB166092BS	LCS	01/17/25 11:44		rubina	OK
15	Q1109-02	TAPIAL1-MW04S-011	SAM	01/17/25 11:44		rubina	OK
16	Q1113-01	DSN002	SAM	01/17/25 11:44	High	rubina	Dilution
17	Q1113-01DUP	DSN002DUP	DUP	01/17/25 11:44		rubina	OK
18	Q1113-01MS	DSN002MS	MS	01/17/25 11:44		rubina	OK

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Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QCBatch ID # LB134325

Review By	Niha	Review On	1/20/2025 9:49:35 AM
Supervise By	Iwona	Supervise On	1/20/2025 10:12:40 AM
SubDirectory	LB134325	Test	Ammonia

STD. NAME	STD REF.#
ICAL Standard	WP111470
ICV Standard	WP111472
CCV Standard	WP111471
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP111420
Chk Standard	WP110416,WP110019,WP111385,WP108840

19	Q1113-01MSD	DSN002MSD	MSD	01/17/25 11:44		rubina	OK
20	Q1113-03	DSN001	SAM	01/17/25 11:44		rubina	OK
21	Q1113-05	DSN003	SAM	01/17/25 11:44	High	rubina	Dilution
22	CCV2	CCV2	CCV	01/17/25 11:44		rubina	OK
23	CCB2	CCB2	CCB	01/17/25 11:53		rubina	OK
24	Q1120-01	RW10A-20250116	SAM	01/17/25 11:53		rubina	OK
25	CCV3	CCV3	CCV	01/17/25 11:53		rubina	OK
26	CCB3	CCB3	CCB	01/17/25 11:53		rubina	OK
27	Q1113-01DL	DSN002DL	SAM	01/17/25 12:14	Report 2X	rubina	Confirms
28	Q1113-05DL	DSN003DL	SAM	01/17/25 12:14	Report 2X	rubina	Confirms
29	CCV4	CCV4	CCV	01/17/25 12:14		rubina	OK
30	CCB4	CCB4	CCB	01/17/25 12:14		rubina	OK

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Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QCBatch ID # LB134347

Review By	jignesh	Review On	1/20/2025 2:57:43 PM
Supervise By	Iwona	Supervise On	1/22/2025 11:22:53 AM
SubDirectory	LB134347	Test	Oil and Grease

STD. NAME	STD REF.#
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	W3153,M6069,EP2580,WP110826,NA,NA,WP100827,WP100828,NA

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB134347BL	LB134347BL	MB	01/20/25 16:00		jignesh	OK
2	LB134347BS	LB134347BS	LCS	01/20/25 16:00		jignesh	OK
3	LB134347BSD	LB134347BSD	LCSD	01/20/25 16:00		jignesh	OK
4	Q1109-02	TAPIAL1-MW04S-011	SAM	01/20/25 16:00		jignesh	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q1109

Test : Ammonia,Anions Group5,Hexavalent Chromium,Oil and Grease,TOC

Prepbatch ID : PB166092,

Sequence ID/Qc Batch ID: LB134309,LB134312,LB134317,LB134325,LB134347,

Standard ID :
EP2580,WP100827,WP100828,WP108840,WP109953,WP110019,WP110149,WP110150,WP110259,WP110335,WP110380,WP110416,WP110767,WP110826,WP111129,WP111130,WP111131,WP111132,WP111133,WP111134,WP111135,WP111136,WP111137,WP111138,WP111315,WP111316,WP111317,WP111318,WP111325,WP111385,WP111419,WP111420,WP111436,WP111437,WP111439,WP111441,WP111442,WP111443,WP111444,WP111445,WP111446,WP111447,WP111448,WP111449,WP111450,WP111451,WP111452,WP111453,WP111454,WP111455,WP111456,WP111457,WP111458,WP111459,WP111460,WP111461,WP111462,WP111463,WP111464,WP111465,WP111466,WP111470,WP111471,WP111472,WP99896,

Chemical ID :
E3551,E3852,M5501,M5673,M6041,M6069,M6121,W1992,W1993,W2606,W2647,W2651,W2652,W2666,W2700,W2783,W2784,W2800,W2845,W2858,W2860,W2898,W2979,W3016,W3017,W3020,W3022,W3058,W3062,W3063,W3112,W3113,W3132,W3133,W3143,W3153,W3155,W3167,W3169,

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Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2580	01/17/2025	07/01/2025	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 01/17/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
114	hexavalent chromium color reagent	WP100827	02/02/2023	02/09/2023	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 02/02/2023

FROM 0.25000gram of W2979 + 50.00000ml of W2783 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3456	Cyanide Intermediate Working Std, 5PPM	WP100828	02/02/2023	02/03/2023	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Sohil Jodhani 02/07/2023

FROM 0.25000ml of W2898 + 49.75000ml of WP99896 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
635	EDTA BUFFER FOR AMMONIA	WP108840	07/26/2024	01/26/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 07/26/2024

FROM 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
613	Phosphoric acid reagent	WP109953	09/25/2024	03/25/2025	Niha Farheen Shaik	None	None	Iwona Zarych 09/27/2024

FROM 150.00000ml of W3112 + 50.00000ml of W2860 = Final Quantity: 200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
289	Sodium Hypochlorite for Ammonia	WP110019	10/02/2024	01/31/2025	Rubina Mughal	None	None	Iwona Zarych 10/04/2024

FROM 50.00000ml of W3112 + 50.00000ml of W3143 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
153	Ammonia Stock Std. (1000 ppm)	WP110149	10/11/2024	04/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 10/14/2024

FROM 3.81900gram of W1993 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1895	Ammonia Stock Std, 1000PPM-SS	WP110150	10/11/2024	04/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 10/14/2024

FROM 3.81900gram of W1992 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4035	IC ELUENT CONCENTRATE FOR IC-1	WP110259	10/16/2024	04/16/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCSC-5)	None	Jignesh Parikh 10/17/2024

FROM 2.10000gram of W2647 + 84.75000gram of W3058 + 913.15000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1597	0.04 N H2SO4	WP110335	10/22/2024	04/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/22/2024

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

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
126	5N sulfuric acid	WP110380	10/24/2024	04/24/2025	Rubina Mughal	None	None	Iwona Zarych 10/24/2024

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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
740	sodium nitroferricyanide for ammonia	WP110416	10/25/2024	04/25/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 10/25/2024

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

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3886	Inorganic carbon stock solution, 1000ppm	WP110767	11/20/2024	05/20/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Mohan Bera 11/21/2024

FROM 3.49700gram of W2647 + 4.41220gram of W3058 + 993.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
229	1:1 HCL	WP110826	11/22/2024	05/13/2025	Jignesh Parikh	None	None	Iwona Zarych 11/22/2024

FROM 500.00000ml of M6121 + 500.00000ml of W3112 = Final Quantity: 1.000 L

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4036	IC ELUENT FOR IC-1	WP111129	12/18/2024	01/18/2025	Niha Farheen Shaik	None	None	Iwona Zarych 12/18/2024

FROM 1980.00000ml of W3112 + 20.00000ml of WP110259 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4037	IC H2SO4 FOR IC-1	WP111130	12/18/2024	01/18/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/18/2024

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

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2487	Anions 300/9056 calibration standard 1	WP111131	12/18/2024	12/19/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/18/2024

FROM 10.00000ml of W3112 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
24	Anions 300/9056 calibration standard 2	WP111132	12/18/2024	12/19/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/18/2024

FROM 0.20000ml of W3063 + 9.80000ml of W3112 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
25	Anions 300/9056 calibration standard 3	WP111133	12/18/2024	12/19/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/18/2024

FROM 0.40000ml of W3063 + 9.60000ml of W3112 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
26	Anions 300/9056 calibration standard 4	WP111134	12/18/2024	12/19/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/18/2024

FROM 0.50000ml of W3063 + 9.50000ml of W3112 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3680	Anions 300/9056 calibration standard 5-CCV	WP111135	12/18/2024	12/19/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/18/2024

FROM 45.00000ml of W3112 + 5.00000ml of W3063 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3679	Anions 300/9056 calibration standard 6	WP111136	12/18/2024	12/19/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/18/2024

FROM 2.00000ml of W3063 + 8.00000ml of W3112 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3681	Anions 300/9056 calibration standard 7	WP111137	12/18/2024	12/19/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/18/2024

FROM 2.50000ml of W3063 + 7.50000ml of W3112 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3233	Anions 300/9056 ICV-LCS std	WP111138	12/18/2024	12/19/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/18/2024

FROM 45.00000ml of W3112 + 5.00000ml of W3062 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1993	HEXAVALENTCHROMIUM STOCK STD 1, 50PPM	WP111315	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/09/2025

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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1994	HEXAVALENTCHROMIUM STOCK STD 2, 50PPM	WP111316	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/09/2025

FROM 0.14140gram of W2652 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1796	NaOH, 0.1N	WP111317	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_7 (WCSC-6)	None	Iwona Zarych 01/09/2025

FROM 4.00000gram of W3113 + 996.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1471	NaOH Solution, 6N	WP111318	01/09/2025	07/09/2025	Rubina Mughal	WETCHEM_SCALE_7 (WCSC-6)	None	Iwona Zarych 01/09/2025

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

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1494	BORATE BUFFER	WP111325	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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
290	Phenol reagent for Ammonia	WP111385	01/13/2025	07/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 01/13/2025

FROM 3.20000gram of W3113 + 8.30000gram of W2858 + 88.80000ml of W3112 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1322	Ammonia Intermediate Std, 50PPM	WP111419	01/16/2025	02/16/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP110149 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1639	Ammonia Intermediate Std-Second source, 50PPM	WP111420	01/16/2025	02/16/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP110150 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2050	TOC STOCK STD, 4000PPM	WP111436	01/15/2025	07/15/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 5.00000ml of W2860 + 8.51200gram of W3169 + 990.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2051	TOC STOCK STD-SS, 4000PPM	WP111437	01/15/2025	06/30/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 5.00000ml of W2860 + 8.51200gram of W2784 + 990.00000ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3888	TOC Water Intermediate std-200ppm	WP111439	01/15/2025	01/22/2025	Niha Farheen Shaik	None	None	Iwona Zarych 01/16/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP111436 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
304	TOC CAL 0.00ppm	WP111441	01/15/2025	01/22/2025	Niha Farheen Shaik	None	None	Iwona Zarych 01/16/2025

FROM 100.00000ml of W3112 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
305	TOC CAL 0.5ppm	WP111442	01/15/2025	01/22/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.75000ml of W3112 + 0.25000ml of WP111439 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
306	TOC CAL 1.0PPM	WP111443	01/15/2025	01/22/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.50000ml of W3112 + 0.50000ml of WP111439 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
307	TOC CAL 2.0PPM	WP111444	01/15/2025	01/22/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.00000ml of W3112 + 1.00000ml of WP111439 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
308	TOC CAL 5.0PPM	WP111445	01/15/2025	01/22/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 97.50000ml of W3112 + 2.50000ml of WP111439 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
310	TOC CAL 20.0PPM	WP111446	01/15/2025	01/22/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/16/2025

FROM 90.00000ml of W3112 + 10.00000ml of WP111439 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3331	TOC CAL-CCV std, 10PPM	WP111447	01/15/2025	01/22/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/16/2025

FROM 190.00000ml of W3112 + 10.00000ml of WP111439 = Final Quantity: 200.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2819	TOC ICV-LCSS, 1000PPM	WP111448	01/15/2025	01/22/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/16/2025

FROM 15.00000ml of W3112 + 5.00000ml of WP111437 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4003	Solution A	WP111449	01/15/2025	07/15/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/16/2025

FROM 1000.00000ml of W3112 + 2.56500gram of W3167 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4004	Solution B	WP111450	01/15/2025	07/15/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/16/2025

FROM 0.24800gram of W3020 + 0.28100gram of M5501 + 0.28300gram of W2800 + 0.59400gram of W1992 + 1000.00000ml of W3112 + 2.05000gram of W3017 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4005	Solution C	WP111451	01/15/2025	07/15/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/16/2025

FROM 0.70500gram of W3016 + 1000.00000ml of W3112 + 2.80600gram of W2647 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4006	Solution D	WP111452	01/15/2025	07/15/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/16/2025

FROM 1.86200gram of W3022 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4007	IC-removal check solution	WP111453	01/15/2025	01/22/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 0.04000ml of M6041 + 10.00000ml of WP111449 + 10.00000ml of WP111450 + 10.00000ml of WP111451 + 10.00000ml of WP111452 = Final Quantity: 40.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3887	Inorganic carbon solution, 20ppm	WP111454	01/15/2025	01/22/2025	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 49.00000ml of W3112 + 1.00000ml of WP110767 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1103	HEX CHROME INTERMEDIATE STD SOURCE 1 (5PPM)	WP111455	01/16/2025	01/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 9.00000ml of W3112 + 1.00000ml of WP111315 = Final Quantity: 10.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
110	calibration std. hexchrome 0 ppm	WP111456	01/16/2025	01/17/2025	Rubina Mughal	None	None	Iwona Zarych 01/16/2025

FROM 100.00000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
109	calibration std. hexchrome 0.01 ppm	WP111457	01/16/2025	01/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.80000ml of W3112 + 0.20000ml of WP111455 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3800	Calibration Std Hexachrome 0.025 ppm	WP111458	01/16/2025	01/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.50000ml of W3112 + 0.50000ml of WP111455 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
108	Calibration Std. hexchrome 0.05 ppm	WP111459	01/16/2025	01/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.00000ml of W3112 + 1.00000ml of WP111455 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
107	Calibration Std. hexchrome 0.1 ppm	WP111460	01/16/2025	01/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.80000ml of W3112 + 0.20000ml of WP111315 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3808	Calibration and CCV std HexChrome 0.5PPM	WP111461	01/16/2025	01/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.00000ml of W3112 + 1.00000ml of WP111315 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3809	Calibration std HexChrome 1.0PPM	WP111462	01/16/2025	01/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 98.00000ml of W3112 + 2.00000ml of WP111315 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3804	Hexavalent Chromium ICV-LCS Std	WP111463	01/16/2025	01/17/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/16/2025

FROM 99.00000ml of W3112 + 1.00000ml of WP111316 = Final Quantity: 100.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
114	hexavalent chromium color reagent	WP111464	01/16/2025	01/23/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCSC-5)	None	Iwona Zarych 01/16/2025

FROM 0.25000gram of W2979 + 50.00000ml of E3852 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3680	Anions 300/9056 calibration standard 5-CCV	WP111465	01/16/2025	01/17/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/16/2025

FROM 45.00000ml of W3112 + 5.00000ml of W3063 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3233	Anions 300/9056 ICV-LCS std	WP111466	01/16/2025	01/17/2025	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 01/16/2025

FROM 45.00000ml of W3112 + 5.00000ml of W3062 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
275	Ammonia Calibration Std. (2 ppm)	WP111470	01/17/2025	01/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/20/2025

FROM 48.00000ml of W3112 + 2.00000ml of WP111419 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
285	Ammonia CCV Std. (1 ppm)	WP111471	01/17/2025	01/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/20/2025

FROM 49.00000ml of W3112 + 1.00000ml of WP111419 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
286	Ammonia ICV Std. (1 ppm)	WP111472	01/17/2025	01/18/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 01/20/2025

FROM 49.00000ml of W3112 + 1.00000ml of WP111420 = Final Quantity: 50.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
11	Sodium hydroxide absorbing solution 0.25 N	WP99896	11/15/2022	05/15/2023	Jignesh Parikh	WETCHEM_SCALE_4 (WCSC-4)	None	Iwona Zarych 11/15/2022

FROM 21.00000L of W2606 + 210.00000gram of W2845 = Final Quantity: 21.000 L

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

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)	1561	03/25/2025	10/29/2024 / Rajesh	10/24/2024 / Rajesh	E3852

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	07/24/2023 / mohan	04/14/2023 / mohan	M5501

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 #
PCI Scientific Supply, Inc.	140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK	80A0441	02/29/2028	09/03/2024 / jignesh	08/19/2024 / Jaswal	M6069

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CHEMICAL RECEIPT LOG BOOK

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 #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	WL13B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1992

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	XE09B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1993

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

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

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CHEMICAL RECEIPT LOG BOOK

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 Nitroferricyanide 250g	W12F013	02/10/2030	02/10/2020 / apatel	02/10/2020 / apatel	W2666

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 #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	0000263246	06/17/2023	12/23/2020 / ketankumar	12/23/2020 / ketankumar	W2783

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	201089	06/30/2025	12/23/2020 / apatel	12/16/2020 / apatel	W2784

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3040-1 / POTASSIUM CHLORIDE, CRYS, ACS, 500G	198947	09/30/2025	03/08/2021 / apatel	03/08/2021 / apatel	W2800

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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	21C2456604	01/31/2024	03/30/2022 / JIGNESH	06/24/2021 / apatel	W2845

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.	J0260-3 / Phosphoric Acid, 2.5 L	0000278313	01/31/2026	07/12/2021 / apatel	07/12/2021 / apatel	W2860

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Supelco	90157 / Cyanide Standard, 1000ppm from Supelco	HC03107133	06/30/2023	01/24/2022 / apatel	01/24/2022 / apatel	W2898

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	S9390-100G / Sodium phosphate dibasic heptahydrate	SLCP6576	11/30/2025	04/03/2023 / Iwona	04/03/2023 / Iwona	W3016

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	C7902-500G / Calcium chloride dihydrate - 500G	SLCP4280	08/31/2025	04/03/2023 / Iwona	04/03/2023 / Iwona	W3017

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Thermo Fisher Scientific	012364.36 / Calcium nitrate tetrahydrate, ACS, 99.0-103.0%	MKCS4612	09/30/2025	04/03/2023 / Iwona	04/03/2023 / Iwona	W3020

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	S4392-250G / Sodium metasilicate nonahydrate	SLCM8472	03/31/2025	04/05/2023 / Iwona	04/05/2023 / Iwona	W3022

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	2023012653	10/19/2028	09/03/2024 / jignesh	10/19/2023 / Iwona	W3058

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	T2-MEB716667	02/12/2025	02/12/2024 / Iwona	10/30/2023 / Iwona	W3062

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	U2-MEB735684	04/09/2025	04/09/2024 / Iwona	11/16/2023 / Iwona	W3063

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CHEMICAL RECEIPT LOG BOOK

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 / Iwona	07/03/2024 / Iwona	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 / Iwona	07/08/2024 / Iwona	W3113

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 / Iwona	07/26/2024 / Iwona	W3132

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140476 / Test Paper,PH Short Range 9.0/10.0	L23	08/22/2029	08/22/2024 / Iwona	08/22/2024 / Iwona	W3133

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	2407F34	01/31/2025	09/30/2024 / Iwona	09/30/2024 / Iwona	W3143

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	08/22/2025	11/25/2024 / jignesh	11/21/2024 / jignesh	W3153

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140730 / TEST PAPER,POT.IOD-STRCH,PK100,CS12	14-860	12/02/2029	12/02/2024 / Iwona	12/02/2024 / Iwona	W3155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J2500-1 / MAGNESIUM SULFATE 7-HYDRATE CRYSTALS 500G	24J2856877	05/29/2027	01/03/2025 / Iwona	01/03/2025 / Iwona	W3167

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24H0956262	04/28/2026	01/03/2025 / Iwona	01/03/2025 / Iwona	W3169

Certificate of Analysis

Date of Release: ***12/18/2013***

Product: ***Ammonium Chloride GR ACS***

Catalog No.: ***AX1270 all size codes***

Grade: ***Meets ACS Specifications***

CAS #: ***12125-02-9***

Country of Origin: ***India***

FW: ***53.49***

Lot No.: ***WL13B***

ClH_4N

Characteristic	Requirement Minimum	Maximum	Results	UOM
Assay (argentometric)	99.5		99.9	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.21	%
Magnesium (Mg)		5	0.6	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.76	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopff

Quality Control Manager

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EMD Millipore Corporation
290 Concord Road
Billerica, MA 01821

Certificate of Analysis

Date of Release: *5/12/2014*

Product: ***Ammonium Chloride GR ACS*** ***Catalog No.:*** ***AX1270 all size codes***

Grade: ***Meets ACS Specifications*** ***CAS #:*** ***12125-02-9***

Country of Origin: ***India*** ***FW:*** ***53.49***

Lot No.: ***XE09B***

ClH_4N

Characteristic	Requirement Minimum	Maximum	Results	UOM
Assay (argentometric)	99.5		99.8	%
Calcium (Ca)		0.001	0.0001	%
Form	White crystals		White crystals	
Heavy metals (as Pb)		5	5	ppm
Identification	To pass test		Passes	
Insoluble matter		0.005	0.002	%
Iron (Fe)		2	2	ppm
Loss on drying (105 C)		0.5	0.22	%
Magnesium (Mg)		5	0.7	ppm
pH of a 5% solution at 25 C	4.5	5.5	4.95	
Phosphate (PO4)		2	2	ppm
Residue after ignition		0.01	0.002	%
Sulfate (SO4)		0.002	0.002	%

Joe Schoellkopff

Quality Control Manager

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EMD Millipore Corporation
290 Concord Road
Billerica, MA 01821

Certificate of Analysis

1.19533.0500 Cyanide standard solution traceable to SRM from NIST $K_2[Zn(CN)_4]$ in H_2O 1000 mg/l CN Certipur®

Batch HC03107133

		Batch Values	
Concentration	β (CN^-)	1002	mg/l

Determination method: Argentometric titration.
The content of this solution was determined with silver nitrate standard solution (article number 1.09081) standardized against volumetric standard sodium chloride (article number 1.02406). The expanded measurement uncertainty is ± 0.7 % (k=2 coverage factor for 95% coverage probability). The certified value is traceable to primary standard NIST SRM 999c (NIST: National Institute of Standards and Technology, USA) by means of volumetric standard sodium chloride, measured in the accredited calibration laboratory of Merck KGaA, Darmstadt, Germany in accordance to DIN EN ISO/IEC 17025.

Date of release (DD.MM.YYYY) 02.07.2020
Minimum shelf life (DD.MM.YYYY) 30.06.2023

Ayfer Yildirim
Responsible laboratory manager quality control

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ThermoFisher SCIENTIFIC

Certificate of Analysis

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 ($NaHCO_3$) (dried basis)	99.7 - 100.3 %	100.1
Insoluble Matter	<= 0.015 %	< 0.002
Chloride (Cl)	<= 0.003 %	0.003
Phosphate (PO_4)	<= 0.001 %	0.001
Sulfur Compounds (as SO_4)	<= 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_4)	<= 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

Acetone
ULTRA RESI-ANALYZED
For Organic Residue Analysis

avantor™ | J.T.Baker®

Material No.: 9254-03
Batch No.: 0000263246
Manufactured Date: 2020/06/17
Expiration Date: 2023/06/17
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected for water)	>= 99.4 %	99.7
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0000 ppm	0.1000
Substances Reducing Permanganate	Passes Test	PT
Titrable Acid (µeq/g)	<= 0.3	0.1
Titrable Base (µeq/g)	<= 0.6	< 0.1
Water (H_2O)	<= 0.5 %	0.3
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	5

For Laboratory, Research or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

ThermoFisher SCIENTIFIC

Certificate of Analysis

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	40.5ºC min	40.5 ºC
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

Phosphoric Acid
BAKER ANALYZED® A.C.S. Reagent

(orthophosphoric acid)

Material No.: 0260-03
Batch No.: 0000278313
Manufactured Date: 2021/02/01
Retest Date: 2026/01/31
Revision No: 2

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (H_3PO_4) (by acidimetry)	85.0 - 87.0 %	85.8
Calcium (Ca)	<= 0.002 %	< 0.001
Color (APHA)	<= 10	5
Insoluble Matter	<= 0.001 %	< 0.001
ACS - Magnesium (Mg)	<= 0.002 %	<0.002
Sulfate (SO_4)	<= 12 ppm	< 4
Volatile Acids (as CH_3COOH)	<= 0.001 %	0.001
Reducing Substances	Passes Test	PT
Chloride (Cl)	<= 3 ppm	< 1
Nitrate (NO_3)	<= 5 ppm	< 2
Trace Impurities - Antimony (Sb)	<= 20.000 ppm	0.007
Trace Impurities - Arsenic (As)	<= 0.500 ppm	< 0.001
Trace Impurities - Iron (Fe)	<= 10.000 ppm	< 1.000
Heavy Metals (as Pb)	<= 8 ppm	< 3
Trace Impurities - Manganese (Mn)	<= 0.500 ppm	0.005
Trace Impurities - Potassium (K)	<= 40.000 ppm	< 0.001
Trace Impurities - Sodium (Na)	<= 200.000 ppm	0.082

For Laboratory, Research or Manufacturing Use
Exceeds A.C.S. Specifications
Meets Reagent Specifications for testing USP/NF monographs

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

ThermoFisher SCIENTIFIC

Certificate of Analysis

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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Sigma-Aldrich.

W3016
Rec 04/03/23 12

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Sodium phosphate dibasic heptahydrate - ACS reagent, 98.0-102.0%

$Na_2HPO_4 \cdot 7H_2O$

Product Number:	**S9390**
Batch Number:	**SLCP6576**
Brand:	SIGALD
CAS Number:	7782-85-6
MDL Number:	MFCD00149180
Formula:	HNa2O4P · 7H2O
Formula Weight:	268.07 g/mol
Quality Release Date:	02 NOV 2022
Recommended Retest Date:	NOV 2025

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Assay	98.0 - 102.0 %	99.8 %
Insoluble Matter	≤ 0.005 %	0.003 %
Chloride (Cl) < or = 0.001%	Pass	Pass
Sulfate < or = 0.005%	Pass	Pass
Iron (Fe) < or = 0.001%	Pass	Pass
Heavy Metals by ICP	< = 0.001%	< 0.001%
pH of 5% solution at 25 deg C	8.7 - 9.3	9.2
Note ACS Tests	_____	_____

Brian Dulle, Supervisor
Quality Assurance
St. Louis, Missouri US

Sigma-Aldrich

W3017
Rec 4/3/23 12

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Calcium chloride dihydrate - BioReagent, suitable for cell culture, suitable for insect cell culture, suitable for plant cell culture, ≥99.0%

$CaCl_2 \cdot 2H_2O$

Product Number:	**C7902**
Batch Number:	**SLCP4280**
Brand:	SIGMA
CAS Number:	10035-04-8
MDL Number:	MFCD00149613
Formula:	CaCl2 · 2H2O
Formula Weight:	147.01 g/mol
Quality Release Date:	14 NOV 2022
Recommended Retest Date:	AUG 2025

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity) 294 mg/mL, H2O	Clear	Clear
Titration with EDTA	99.0 - 105.0 %	103.3 %
Cell Culture Test	Pass	Pass
Insect Cell Test	Pass	Pass
Plant Cell Culture Test	Pass	Pass

Brian Dulle, Supervisor
Quality Assurance
St. Louis, Missouri US

Sigma-Aldrich.

W 3020
Rec. 4/3/23
12

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Calcium nitrate tetrahydrate - ACS reagent, 99%

$Ca(NO_3)_2 \cdot 4H_2O$

Product Number:	**237124**
Batch Number:	**MKCS4612**
Brand:	SIGALD
CAS Number:	13477-34-4
MDL Number:	MFCD00149604
Formula:	CaN2O6 · 4H2O
Formula Weight:	236.15 g/mol
Quality Release Date:	27 FEB 2023
Recommended Retest Date:	SEP 2025

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Conforms to Requirements	Crystals
Granular Powder or Crystals or Flakes		
Complexometric EDTA	99.0 - 103.0 %	99.6 %
X-Ray Diffraction	Conforms to Structure	Conforms
pH	5.0 - 7.0	5.4
c = 5%, Water, 25 Deg C		
Insoluble Matter	≤ 0.005 %	< 0.001 %
c = 10%, Water		
Chloride Content	≤ 0.005 %	< 0.005 %
Nitrite (NO2)	≤ 0.001 %	< 0.001 %
Sulfate (SO4)	≤ 0.002 %	< 0.002 %
Barium	≤ 0.005 %	< 0.001 %
Heavy Metals	≤ 5.0 ppm	< 1.0 ppm
by ICP-OES		
Iron (Fe)	≤ 5.0 ppm	< 1.0 ppm
Magnesium (Mg)	≤ 0.05 %	< 0.01 %
Potassium (K)	≤ 0.005 %	< 0.001 %
Sodium (Na)	≤ 0.01 %	< 0.01 %
Strontium (Sr)	≤ 0.05 %	< 0.01 %
Meets ACS Requirements	Current ACS Specification	Conforms

W3020

Sigma-Aldrich.

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 237124
Batch Number: MKCS4612

Test	Specification	Result
Recommended Retest Period 3 Years	_____	_____

Larry Coers, Director
Quality Control
Milwaukee, WI US

Sigma-Aldrich.

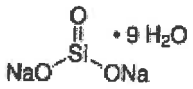
W 3022
Rec. 4/5/23 12

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Sodium metasilicate nonahydrate - ≥98%

Product Number:	**S4392**
Batch Number:	**SLCM8472**
Brand:	ALDRICH
CAS Number:	13517-24-3
MDL Number:	MFCD00149175
Formula:	Na2O3Si · 9H2O
Formula Weight:	284.20 g/mol
Quality Release Date:	14 MAR 2022
Recommended Retest Date:	MAR 2025



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Solubility (Color) 50 mg/ml, H2O	Colorless	Colorless
Solubility (Turbidity) 50 mg/ml, H2O	Clear	Clear
Titration with HCl	≥ 98 %	100 %

Brian Dulle

Brian Dulle, Supervisor
Quality Assurance
St. Louis, Missouri US

Certificate Of Analysis

W 3058

Rec. 10/19/23 12

Date of Release: 1/27/2023

Name: **Sodium Carbonate, Anhydrous**
Powder, ACS

Item No: **SX0395 All Sizes**
Lot / Batch No: **2023012653**
Country of Origin: **India**

Item	Specifications	Analysis
Assay (calculated on dried substance)	99.5% min.	100.2%
Calcium (Ca)	0.03% max.	0.004%
Chloride (Cl)	0.001% max.	<0.001%
Color	White	Passes Test
Form	Powder	Passes Test
Heavy metals (by ICP-OES)	5 ppm max.	<5 ppm
Insoluble Matter	0.01% max.	0.003%
Iron (Fe)	5 ppm max.	<5 ppm
Loss on heating at 285C	1.0% max.	0.1%
Magnesium (Mg)	0.005% max.	0.0008%
Phosphate (PO4)	0.001% max.	<0.001%
Potassium (K)	0.005% max.	0.003%
Silica (SiO2)	0.005% max.	<0.005%
Sulfur compounds (as SO4)	0.003% max.	<0.003%

Joe Schoellkopff

Quality Control Manager

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N 3062
NEC on 10/30/23
12

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Ion Chromatography Solution
Catalog Number:	300-CAL-A
Lot Number:	T2-MEB716667
Matrix:	H2O
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	30.00 ± 0.13 µg/mL
Fluoride, F-	20.00 ± 0.06 µg/mL	Nitrate as N, NNO3-	25.00 ± 0.09 µg/mL
Nitrite as N, NNO2-	30.00 ± 0.15 µg/mL	o-Phosphate as P, PPO4	50.00 ± 0.30 µg/mL
Sulfate, SO4	150.0 ± 0.9 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	060925
Cl	Fajans	999c	999c
Cl	Calculated		See Sec. 4.2
F-	IC Assay	3183	140203
NNO3-	IC Assay	3185	050517
NNO2-	IC Assay		traceable to 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:

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

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:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ 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 Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

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**

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; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 17, 2022

- 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

- March 17, 2027

- 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 Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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info@inorganicventures.com

W3063
rec. 11/16/23 12

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).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Ion Chromatography Solution
Catalog Number:	300-CAL-A
Lot Number:	U2-MEB735684
Matrix:	H2O
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	30.00 ± 0.14 µg/mL
Fluoride, F-	20.00 ± 0.06 µg/mL	Nitrate as N, NNO3-	25.00 ± 0.09 µg/mL
Nitrite as N, NNO2-	30.00 ± 0.15 µg/mL	o-Phosphate as P, PPO4	50.00 ± 0.18 µg/mL
Sulfate, SO4	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
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:

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

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:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{½}$ 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 Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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**

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; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 10, 2023

- 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

- August 10, 2028

- 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

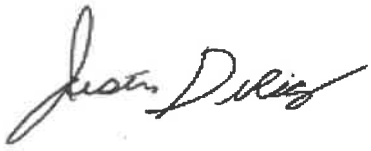
- Sealed TCT Bag Open Date: _____

- 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:

Justin Dirico
Stock Processing Supervisor



Certificate Approved By:

Nicholas Plymale
Custom VSM Coordinator

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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 (Na2B4O7 • 10H2O)	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 (PO4)	0.001% max.	<0.001%
Sulfate (SO4)	0.005% max.	<0.005%

Joe Schoellkopff

Quality Control Manager

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EMD Millipore Corporation
400 Summit Drive
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Certificate of Analysis

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

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P217	Quality Test / Release Date	09/03/2020
Lot Number	198947		
Description	POTASSIUM CHLORIDE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Sep/2025
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.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystals
ASSAY	%	Inclusive Between 99.0 - 100.5	99.7
BARIUM (Ba)	PASS/FAIL	= P.T. (ABOUT 0.001%)	P.T. (ABOUT 0.001%)
BROMIDE	%	<= 0.01	<0.01
CALCIUM	%	<= 0.002	<0.002
CHLORATE & NITRATE	%	<= 0.003	<0.001
HEAVY METALS (as Pb)	ppm	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IODIDE	%	<= 0.002	<0.002
IRON (Fe)	ppm	<= 2	<1
MAGNESIUM	%	<= 0.001	<0.0005
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.4 - 8.6	6.0
PHOSPHATE (PO4)	ppm	<= 5	<5
SODIUM (Na)	%	<= 0.005	<0.005
SULFATE (SO4)	%	<= 0.001	<0.001

Julian Burton

Julian Burton - Quality Control Manager – 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.

ThermoFisher SCIENTIFIC

Certificate of Analysis

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

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

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

Teresa 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.

ThermoFisher SCIENTIFIC

Certificate of Analysis

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

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P243	Quality Test / Release Date	06/19/2020
Lot Number	201089		
Description	POTASSIUM HYDROGEN PHTHALATE,ACIDIMETRIC STANDARD, A.C.S.		
Country of Origin	Spain	Suggested Retest Date	Jun/2025
Chemical Origin	Organic - 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.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	WHITE CRYSTALS
ASSAY POTASSIUM HYDROGEN PHTHALATE	%	Inclusive Between 99.95 - 100.05	100.03
CHLORINE COMPOUNDS	%	<= 0.003	<0.003
HEAVY METALS (as Pb)	ppm	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5
PH OF 0.05M SOLUTION		Inclusive Between 4.00 - 4.02	4.00
SODIUM (Na)	%	<= 0.005	<0.005
SULFUR COMPOUNDS	%	<= 0.002	<0.002%
TRACEABLE TO NIST	SOD CARBONATE	= LOT 351a	351a
TRACEABLE TO NIST KHP STD	POT. ACID PHTHALATE	= LOT 84L	84L

Julian Burton

Julian Burton - Quality Control Manager – 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.

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

RG-02-01, Ed. 3

Recd. by RI on 7/24/23 E3551

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

M5493 - M5308
Rad on 4/14/23
JMG

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 2

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T 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

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

A15673-78
A-3

avantor™ | J.T.Baker®

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_2SO_4)	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 SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 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™ | J.T.Baker®

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

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

For Laboratory,Research,or Manufacturing Use

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

James T Ethier

Jamie Ethier
Vice President Global Quality

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

M 6041-46
MS

avantor™ | J.T.Baker®

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_2SO_4)	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 SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 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™ | J.T.Baker®

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

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

For Laboratory,Research,or Manufacturing Use

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

James T Ethier

Jamie Ethier
Vice President Global Quality

R: 8/19/24 M6069

MACHEREY-NAGEL

Certificate of Analysis

Product information

Product	pH-Fix 0.3-2.3
REF	92180
LOT	80A0441
Expiration date:	29.02.2028
Date of examination:	23.01.2024
Gradation:	pH 0.3-0.7-1.0-1.3-1.6-1.9-2.3

Confirmation

Hereby we confirm, that the above mentioned product has successfully passed our quality control system in accordance with ISO 9001 and meets the specific quality criteria.

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

MACHEREY-NAGEL GmbH & Co. KG
Valencienner Str. 11
52355 Düren · Germany
www.mn-net.com

DE Tel.: +49 24 21 969-0 info@mn-net.com
CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com
FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com
US Tel.: +1 888 321 62 24 sales-us@mn-net.com

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

avantor™ | J.T.Baker®

R → 10/13/24
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_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 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

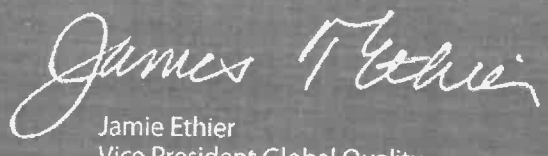
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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

Sigma-Aldrich.

W 2979

Rec: 12/08/22

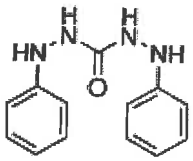
exp. 12/08/27

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
1,5-Diphenylcarbazide - ACS reagent

Product Number:	**259225**
Batch Number:	**MKCR6636**
Brand:	SIAL
CAS Number:	140-22-7
MDL Number:	MFCD00003013
Formula:	C13H14N4O
Formula Weight:	242.28 g/mol
Quality Release Date:	02 JUN 2022



Test	Specification	Result
Appearance (Color) Off-White to Pink, Light Purple or Tan	Conforms to Requirements	Pink
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) 15 minutes, 800 Degrees Celsius	≤ 0.05 %	0.01 %
Solubility	Pass	Pass
Sensitivity Test	Pass	Pass
Meets ACS Requirements	Current ACS Specification	Conforms

Larry Coers, Director
Quality Control
Milwaukee, WI US

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:

Pellets

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

Storage: Room Temperature

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.

Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: **0583**

Grade: **ACS GRADE**

Batch Number: **23B1556310**

Chemical Formula:	NaOH	Manufacture Date:	12/14/2022
Molecular Weight:	40	Expiration Date:	12/31/2025
CAS #:	1310-73-2		
Appearance:		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.

Certificate Of Analysis

Item Number	ED150	Lot Number	2ND0156
Item	Edetate Disodium, Dihydrate, USP	CAS Number	6381-92-6
Molecular Formula	$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$	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[$n[(HOCOCH_2)_3N]$]		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.

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Sodium Hypochlorite Solution, 5% available Chlorine

Lot Number: 2407F34 **Product Number:** 7495.5

Manufacture Date: JUL 12, 2024
Expiration Date: JAN 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) Cl_2	5.05 % (w/w) 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 (07/12/2024)
Operations Manager

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis

avantor™ | J.T.Baker®

W3153
TB
Opyte. 11/25/2024
TB

Certificate of Analysis

Material No.: 9262-03
Batch No.: 24G1962003
Manufactured Date: 2024-05-23
Expiration Date: 2025-08-22
Revision No.: 0

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C_6 Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H_2SO_4	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

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

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

Certificate of Analysis

Magnesium Sulfate Heptahydrate

Material: 0662
Grade: ACS GRADE
Batch Number: 24J2856877

Chemical Formula: MgSO4.7H2O
Molecular Weight: 246.48
CAS #: 10034-99-8
Appearance:

White powder

Manufacture Date: 05/29/2023
Reassay Date: 05/29/2027

Storage: Room Temperature

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Ammonium	<= 0.002 %	<0.001 %	PASS
Calcium	<= 0.02 %	<0.0005 %	PASS
Chloride	<= 0.0005 %	0.0001 %	PASS
Heavy Metals (as Pb)	<= 0.0005 %	<0.0001 %	PASS
Insolubles	<= 0.005 %	<0.0002 %	PASS
Iron	<= 0.0005 %	<0.00001 %	PASS
Manganese	<= 0.0005 %	<0.0001 %	PASS
Nitrate	<= 0.002 %	<0.001 %	PASS
pH (5%, Water) @25C	5.0 - 8.2	6.3	PASS
Potassium	<= 0.005 %	<0.001 %	PASS
Purity	98.0 - 102.0 %	100.1 %	PASS
Sodium	<= 0.005 %	<0.001 %	PASS
Strontium	<= 0.005 %	<0.00001 %	PASS

Internal ID #: 793

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.

Certificate of Analysis

Magnesium Sulfate Heptahydrate

Material: **0662**

Grade: **ACS GRADE**

Batch Number: **24J2856877**

Chemical Formula:	MgSO4.7H2O	Manufacture Date:	05/29/2023
Molecular Weight:	246.48	Reassay Date:	05/29/2027
CAS #:	10034-99-8		
Appearance:		Storage:	Room Temperature

White powder

Spec Set: 0662ACS

Internal ID #: 793

Signature

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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.

Certificate of Analysis

Material	BDH9260-500G
Material Description	BDH POTASS HYDRGN PHTHLTE 500G
Grade	ACS GRADE
Batch	24H0956262
Reassay Date	04/28/2026
CAS Number	877-24-7
Molecular Formula	HOOCC6H4COOK
Molecular Mass	204.22
Date of Manufacture	04/29/2023
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	White crystals.	White crystals.
Assay (dried basis)	99.95 - 100.05 %	99.98 %
Chlorine Compounds	<= 0.003 %	<0.003 %
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm
Insoluble Matter	<= 0.005 %	0.003 %
Iron	<= 5 ppm	<5 ppm
pH (0.05M, Water) @25C	4.00 - 4.02	4.00
Sodium	<= 0.005 %	<0.005 %
Sulfur Compounds	<= 0.002 %	<0.002 %

Internal ID #: 322

Signature

We certify that this batch conforms to the specifications listed above.

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.

SHIPPING DOCUMENTS

Q1109

Weston COC ID
Weston_20250115_1527

Chain of Custody Record/Lab Work Request

Page 1 of 1

Client:	Weston Solutions, Inc.		
Project Manager:	David Sembrot		
Street Address:	1400 Weston Way	City:	West Chester
Phone:	610-314-5456	ST, ZIP:	PA, 19038
e-mail:	david.sembrot@westonsolutions.com		
Sampled By:	Cheyenne Harrington		

Project Name:	Fort Meade RI	Project POC:	Nathan Fretz
PO Number	0111169	Phone:	484-524-5665
W.O. #:		POC e-mail:	nathan.fretz@westonsolutions.com
Lab:	CHEMTECH	Lab POC:	Jordan Hedvat
TAT (days):	21	Lab Phone:	908-728-3144
Lab Address:	284 Sheffield Street Mountainside, NJ 07092		

Lab Use Only		
Temperature of cooler when received (°C)		
COC Tape was present and unbroken on outer package?	Y	N
Samples received in good condition?	Y	N
Labels indicate properly preserved?	Y	N
Received within holding times?	Y	N
Discrepancies between sample labels and COC record?	Y	N

Matrix Codes	
SS -	Soil
SE -	Sediment
SO -	Solid
SL -	Sludge
GW -	Groundwater
W -	Water
SB -	Soil Boring
A -	Air
DS -	Drum Solids
DL -	Drum Liquids
L -	EP/TCLP Leachate
WI -	Wipe
X -	Other
F -	Fish

#	Sample ID	G/C	Matrix	# Cont	MS/MSD	Date Collected	Time Collected	TPH-DRO by EPA 8015D	Pesticides by EPA 8081B	SVOCs by EPA 8270E	Oil & Grease by EPA 1664A	Hardness by Calc by EPA 200.7	Anions by EPA 9056A	TOC by EPA 9060A/Lloyd Kahn	TPH-GRO by EPA 8015D	VOCs by EPA 8260D	Hex Chromium by EPA 7196A	Ammonia by SM4500-NH3 B&G	TAL Metals w Hg by 6020B/7470A	Special Instructions/Comments
Container Type:								Amber	Amber	Amber	Glass	Plastic	Plastic	Vial	Vial	Vial	Plastic	Plastic	Plastic	
Container Size:								1 L	1 L	1 L	1 L	1 L	1 L	40 mL	40 mL	40 mL	500 mL	500 mL	500 mL	
Preservative:								Ice to 0-6 deg C	Ice to 0-6 deg C	Ice to 0-6 deg C	H2SO4	HNO3	Ice to 0-6 deg C	H2SO4	HCL	HCL	Ammonium Sulfate	H2SO4	HNO3	
1	TAPIAL1-MW04I-011525-00-T3	g	GW	4	no	1/15/2025	12:20					X		X					X	
2	TAPIAL1-MW04S-011525-00-T2	g	GW	19	no	1/15/2025	12:20	X	X	X	X	X	X	X	X	X	X	X	X	
3	TAP-TB-01-011525	g	W	2	no	1/15/2025	15:35									X				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Shipping Airbill Number: 771460519011, 771460519022

Temp 2.2°C

Cooler Number: 1 + 2 of 2

	Relinquished By	Date	Time	Received By	Date	Time	Additional Comments
1.)	Clyn Hyf	1/15/25	1700		1-16-25	0932	QSM 6.0 Compliant
2.)							Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD
3.)							

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

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1109 WEST04
Client Name : Weston Solutions
Client Contact : Nathan Fretz
Invoice Name : Weston Solutions
Invoice Contact : Nathan Fretz

Order Date : 1/16/2025 11:32:00 AM
Project Name : Ft Meade Tipton Airfield Pa
Receive DateTime : 1/16/2025 9:32:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : SEDD 2A
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1109-02	TAPIAL1-MW04S-011525-00-T2	Water	01/15/2025	12:20					
					Gasoline Range Organics		8015D		10 Bus. Days

Relinguished By : [signature]
Date / Time : 1-16-25 1315

Received By : [signature]
Date / Time : 1-16-25 2:10 PM

Storage Area : VOA Refridgerator Room

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1109 WEST04
Client Name : Weston Solutions
Client Contact : Nathan Fretz
Invoice Name : Weston Solutions
Invoice Contact : Nathan Fretz

Order Date : 1/16/2025 11:32:00 AM
Project Name : Ft Meade Tipton Airfield Pa
Receive DateTime : 1/16/2025 9:32:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : SEDD 2A
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1109-02	TAPIAL1-MW04S-011525-00-T2	Water	01/15/2025	12:20					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1109-04	TAP-TB-01-011525	Water	01/15/2025	15:35					
					VOC-TCLVOA-10		8260D		10 Bus. Days

stored in VOA ref #05

Relinquished By :
Date / Time : 12-16-25 1315

Received By :
Date / Time : 01/10/25 2:00 pm

Storage Area : VOA Refridgerator Room