

DATA PACKAGE

GENERAL CHEMISTRY

PROJECT NAME : NYCDDC SANTWOBR BROOKLYN BRIDGE BBMCR

RU2 ENGINEERING, LLC

2 Melinda Drive

Monroe Township, NJ - 08831

Phone No: 732-261-2236

ORDER ID : Q1241

ATTENTION : Rutu Manani



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q1241

Project ID : NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Client : RU2 Engineering, LLC

Lab Sample Number

Q1241-01
Q1241-02
Q1241-03
Q1241-04
Q1241-05
Q1241-06
Q1241-07
Q1241-08
Q1241-09
Q1241-10
Q1241-11
Q1241-12
Q1241-13
Q1241-14
Q1241-15
Q1241-16
Q1241-17
Q1241-18
Q1241-19
Q1241-20

Client Sample Number

JPP-3.5-013025
JPP-3.5-013025
JPP-3.5-013025
JPP-3.5-013025
JPP-5.3-013025
JPP-5.3-013025
JPP-5.3-013025
JPP-5.3-013025
JPP-5.2-013025
JPP-5.2-013025
JPP-5.2-013025
JPP-5.2-013025
JPP-5.4-013025
JPP-5.4-013025
JPP-5.4-013025
JPP-5.4-013025
JPP-51.4-013025
JPP-51.4-013025
JPP-51.4-013025
JPP-51.4-013025

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 :

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 11:22 am, Feb 14, 2025

Date: 2/10/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

CASE NARRATIVE

RU2 Engineering, LLC

Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Project # N/A

Chemtech Project # Q1241

Test Name: Corrosivity,Paint Filter,Ignitability,Reactive Cyanide,Reactive Sulfide

A. Number of Samples and Date of Receipt:

20 Solid samples were received on 01/30/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for Corrosivity,Paint Filter,Ignitability,Reactive Cyanide,Reactive Sulfide.

C. Analytical Techniques:

The analysis of Ignitability was based on method 1030, The analysis of Reactive Cyanide was based on method 9012B, The analysis of Reactive Sulfide was based on method 9034, The analysis of Corrosivity was based on method 9045D and The analysis of Paint Filter was based on method 9095B.

D. QA/ QC Samples:

The Holding Times were met for all samples except for JPP-3.5-013025 of Corrosivity, for JPP-5.2-013025 of Corrosivity.for JPP-5.3-013025 of Corrosivity.for JPP-5.4-013025 of Corrosivity.for JPP-51.4-013025 of Corrosivity as these samples are received out of hold.

The Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

E. Additional Comments:

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_____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 11:22 am, Feb 14, 2025

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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: Q1241

MATRIX: Solid

METHOD: 1030,9012B,9034,9045D,9095B

	NA	NO	YES
1. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
2. Sample Duplicate Analysis Met QC Criteria			✓
If not met, list those compounds and their recoveries which fall outside the acceptable range.			
3. Digestion Holding Time Met		✓	
If not met, list number of days exceeded for each sample:			
The Holding Times were met for all samples except for JPP-3.5-013025 of Corrosivity, for JPP-5.2-013025 of Corrosivity.for JPP-5.3-013025 of Corrosivity.for JPP-5.4-013025 of Corrosivity.for JPP-51.4-013025 of Corrosivity as these samples are received out of hold.			

ADDITIONAL COMMENTS:

QA REVIEW

REVIEWED

By Sohil Jodhani, QA/QC Director at 10:10 am, Feb 14, 2025

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1241

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: 02/10/2025

LAB CHRONICLE

OrderID:	Q1241	OrderDate:	1/30/2025 2:58:00 PM
Client:	RU2 Engineering, LLC	Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	Location:	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1241-03	JPP-3.5-013025	SOIL			01/30/25 08:20			01/30/25
			Paint Filter	9095B			02/04/25 09:10	
Q1241-04	JPP-3.5-013025	SOIL			01/30/25 08:20			01/30/25
			Corrosivity	9045D			01/31/25 17:00	
			Ignitability	1030			01/31/25 13:07	
			Reactive Cyanide	9012B		02/03/25	02/03/25 11:16	
			Reactive Sulfide	9034		01/31/25	01/31/25 15:17	
Q1241-07	JPP-5.3-013025	SOIL			01/30/25 09:00			01/30/25
			Paint Filter	9095B			02/04/25 09:17	
Q1241-08	JPP-5.3-013025	SOIL			01/30/25 09:00			01/30/25
			Corrosivity	9045D			01/31/25 17:05	
			Ignitability	1030			01/31/25 13:15	
			Reactive Cyanide	9012B		02/03/25	02/03/25 11:16	
			Reactive Sulfide	9034		01/31/25	01/31/25 15:20	

LAB CHRONICLE

Q1241-11	JPP-5.2-013025	SOIL		01/30/25 09:54	01/30/25
		Paint Filter	9095B		02/04/25 09:25
Q1241-12	JPP-5.2-013025	SOIL		01/30/25 09:54	01/30/25
		Corrosivity	9045D		01/31/25 17:15
		Ignitability	1030		01/31/25 13:23
		Reactive Cyanide	9012B	02/03/25	02/03/25 11:16
		Reactive Sulfide	9034	01/31/25	01/31/25 15:23
Q1241-15	JPP-5.4-013025	SOIL		01/30/25 10:51	01/30/25
		Paint Filter	9095B		02/04/25 09:32
Q1241-16	JPP-5.4-013025	SOIL		01/30/25 10:51	01/30/25
		Corrosivity	9045D		01/31/25 17:25
		Ignitability	1030		01/31/25 13:30
		Reactive Cyanide	9012B	02/03/25	02/03/25 11:16
		Reactive Sulfide	9034	01/31/25	01/31/25 15:25
Q1241-19	JPP-51.4-013025	SOIL		01/30/25 11:56	01/30/25
		Paint Filter	9095B		02/04/25 09:40
Q1241-20	JPP-51.4-013025	SOIL		01/30/25 11:56	01/30/25
		Corrosivity	9045D		01/31/25 17:33

LAB CHRONICLE

Ignitability	1030		01/31/25 13:37
Reactive Cyanide	9012B	02/03/25	02/03/25 11:16
Reactive Sulfide	9034	01/31/25	01/31/25 15:28



SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 08:20
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-03	Matrix:	SOIL
		% Solid:	82

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 09:10	9095B

Comments: _____

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements
 H = Sample Analysis Out Of Hold Time

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N = Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 08:20
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-04	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	8.62	H	1	0	0	pH		01/31/25 17:00	9045D
Ignitability	NO		1	0	0	oC		01/31/25 13:07	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:16	9012B
Reactive Sulfide	3.19	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 15:17	9034

Comments: pH result reported at temperature 20.5 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 09:00
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-07	Matrix:	SOIL
		% Solid:	87.8

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 09:17	9095B

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements
 H = Sample Analysis Out Of Hold Time

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N =Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 09:00
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-08	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	10.9	H	1	0	0	pH		01/31/25 17:05	9045D
Ignitability	NO		1	0	0	oC		01/31/25 13:15	1030
Reactive Cyanide	0.050	U	1	0.0087	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:16	9012B
Reactive Sulfide	6.34	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 15:20	9034

Comments: pH result reported at temperature 20.5 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 09:54
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.2-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-11	Matrix:	SOIL
		% Solid:	88.7

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 09:25	9095B

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 09:54
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.2-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-12	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	11.3	H	1	0	0	pH		01/31/25 17:15	9045D
Ignitability	NO		1	0	0	oC		01/31/25 13:23	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:16	9012B
Reactive Sulfide	3.17	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 15:23	9034

Comments: pH result reported at temperature 20.6 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 10:51
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-15	Matrix:	SOIL
		% Solid:	86.6

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 09:32	9095B

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements
 H = Sample Analysis Out Of Hold Time

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N = Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 10:51
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-16	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	10.0	H	1	0	0	pH		01/31/25 17:25	9045D
Ignitability	NO		1	0	0	oC		01/31/25 13:30	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:16	9012B
Reactive Sulfide	1.58	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 15:25	9034

Comments: pH result reported at temperature 21.1 °C

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 11:56
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-19	Matrix:	SOIL
		% Solid:	93.2

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Paint Filter	1.00	U	1	1.00	1.00	ml/100gm		02/04/25 09:40	9095B

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements
 H = Sample Analysis Out Of Hold Time

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N = Spiked sample recovery not within control limits

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25 11:56
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-20	Matrix:	SOIL
		% Solid:	100

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Corrosivity	9.02	H	1	0	0	pH		01/31/25 17:33	9045D
Ignitability	NO		1	0	0	oC		01/31/25 13:37	1030
Reactive Cyanide	0.050	U	1	0.0088	0.050	mg/Kg	02/03/25 09:00	02/03/25 11:16	9012B
Reactive Sulfide	3.19	J	1	0.19	10.0	mg/Kg	01/31/25 08:50	01/31/25 15:28	9034

Comments: pH result reported at temperature 21.2 °C

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: RU2 Engineering, LLC

SDG No.: Q1241

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

RunNo.: LB134515

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: Corrosivity	ICV	pH	7.02	7	100	90-110	01/31/2025
Sample ID: Corrosivity	CCV1	pH	2.01	2.00	101	90-110	01/31/2025
Sample ID: Corrosivity	CCV2	pH	12.02	12.00	100	90-110	01/31/2025

Initial and Continuing Calibration Verification

Client: RU2 Engineering, LLC

SDG No.: Q1241

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

RunNo.: LB134524

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Reactive Cyanide	mg/L	0.097	0.099	98	85-115	02/03/2025
Sample ID: CCV1 Reactive Cyanide	mg/L	0.24	0.25	96	90-110	02/03/2025
Sample ID: CCV2 Reactive Cyanide	mg/L	0.24	0.25	96	90-110	02/03/2025
Sample ID: CCV3 Reactive Cyanide	mg/L	0.25	0.25	100	90-110	02/03/2025

Initial and Continuing Calibration Blank Summary

Client: RU2 Engineering, LLC

SDG No.: Q1241

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

RunNo.: LB134524

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB1 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB2 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025
Sample ID: CCB3 Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	02/03/2025

Preparation Blank Summary

Client: RU2 Engineering, LLC

SDG No.: Q1241

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB166422BL							
Reactive Sulfide	mg/Kg	< 5.0000	5.0000	U	0.186	10	01/31/2025
Sample ID: PB166486BL							
Reactive Cyanide	mg/Kg	< 0.0250	0.0250	U	0.0088	0.05	02/03/2025

Duplicate Sample Summary

Client:	RU2 Engineering, LLC	SDG No.:	Q1241
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Sample ID:	Q1215-04
Client ID:	JPP-29.1-012825DUP	Percent Solids for Spike Sample:	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		01/31/2025

Duplicate Sample Summary

Client:	RU2 Engineering, LLC	SDG No.:	Q1241
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Sample ID:	Q1232-03
Client ID:	JPP-46.2-012925DUP	Percent Solids for Spike Sample:	89.2

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		02/04/2025

Duplicate Sample Summary

Client:	RU2 Engineering, LLC	SDG No.:	Q1241
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Sample ID:	Q1232-04
Client ID:	JPP-46.2-012925DUP	Percent Solids for Spike Sample:	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Reactive Sulfide	mg/Kg	+/-20	1.58	J	1.58	J	1	0		01/31/2025
Reactive Cyanide	mg/Kg	+/-20	0.0087	U	0.0088	U	1	0		02/03/2025

Duplicate Sample Summary

Client:	RU2 Engineering, LLC	SDG No.:	Q1241
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Sample ID:	Q1241-04
Client ID:	JPP-3.5-013025DUP	Percent Solids for Spike Sample:	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Corrosivity	pH	+/-20	8.62		8.63		1	0.12		01/31/2025

Duplicate Sample Summary

Client:	RU2 Engineering, LLC	SDG No.:	Q1241
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Sample ID:	Q1242-04
Client ID:	JPP-6.2-013025DUP	Percent Solids for Spike Sample:	100

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Ignitability	oC	+/-20	NO		NO		1	0		01/31/2025

Duplicate Sample Summary

Client:	RU2 Engineering, LLC	SDG No.:	Q1241
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Sample ID:	Q1281-01
Client ID:	OR-02--2-03-2025DUP	Percent Solids for Spike Sample:	86.7

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Paint Filter	ml/100gm	+/-20	1.00	U	1.00	U	1	0		02/04/2025



RAW DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Analytical Summary Report

Analysis Method: 1030
Parameter: Ignitability
Run Number: LB134500

Reviewed By: Iwona

Supervisor Review By: jignesh

Seq	LabID	ClientID	DF	matrix	Result Status	Burning Rate	Anal Date	Anal Time
1	Q1215-04	JPP-29.1-012825	1	Solid	NO	0.00	01/31/2025	09:30
2	Q1215-04DUP	JPP-29.1-012825DUP	1	Solid	NO	0.00	01/31/2025	09:38
3	Q1215-08	JPP-29.2-012825	1	Solid	NO	0.00	01/31/2025	09:45
4	Q1216-04	JPP-18.1-012825	1	Solid	NO	0.00	01/31/2025	09:52
5	Q1216-08	JPP-21.1-012825	1	Solid	NO	0.00	01/31/2025	10:00
6	Q1216-12	JPP-21.2-012825	1	Solid	NO	0.00	01/31/2025	10:08
7	Q1216-16	JPP-26.1-012825	1	Solid	NO	0.00	01/31/2025	10:15
8	Q1216-20	JPP-26.2-012825	1	Solid	NO	0.00	01/31/2025	10:22
9	Q1218-01	BELL-25-002	1	Solid	NO	0.00	01/31/2025	10:30
10	Q1218-02	BELL-25-002	1	Solid	NO	0.00	01/31/2025	10:38
11	Q1219-01	LAW-25-0015	1	Solid	NO	0.00	01/31/2025	10:45
12	Q1219-02	LAW-25-0015	1	Solid	NO	0.00	01/31/2025	10:52
13	Q1221-01	CHESTNUT-CONCRETE	1	Solid	NO	0.00	01/31/2025	11:00
14	Q1221-02	CHESTNUT-CONCRETE	1	Solid	NO	0.00	01/31/2025	11:08
15	Q1232-04	JPP-46.2-012925	1	Solid	NO	0.00	01/31/2025	11:15
16	Q1232-08	JPP-46.1-012925	1	Solid	NO	0.00	01/31/2025	11:22
17	Q1232-12	JPP-42.1-012925	1	Solid	NO	0.00	01/31/2025	11:30
18	Q1232-16	JPP-42.2-012925	1	Solid	NO	0.00	01/31/2025	11:38
19	Q1232-20	JPP-51.1-012925	1	Solid	NO	0.00	01/31/2025	11:45
20	Q1235-04	JPP-51.2-012925	1	Solid	NO	0.00	01/31/2025	11:52
21	Q1235-08	JPP-16.1-012925	1	Solid	NO	0.00	01/31/2025	12:00
22	Q1239-01	286	1	Solid	NO	0.00	01/31/2025	12:08
23	Q1239-02	286	1	Solid	NO	0.00	01/31/2025	12:15
24	Q1239-04	348	1	Solid	NO	0.00	01/31/2025	12:23
25	Q1239-05	348	1	Solid	NO	0.00	01/31/2025	12:30
26	Q1239-07	RBR22266	1	Solid	NO	0.00	01/31/2025	12:38
27	Q1239-08	RBR22266	1	Solid	NO	0.00	01/31/2025	12:45
28	Q1239-10	357	1	Solid	NO	0.00	01/31/2025	12:52
29	Q1239-11	357	1	Solid	NO	0.00	01/31/2025	13:00
30	Q1241-04	JPP-3.5-013025	1	Solid	NO	0.00	01/31/2025	13:07
31	Q1241-08	JPP-5.3-013025	1	Solid	NO	0.00	01/31/2025	13:15
32	Q1241-12	JPP-5.2-013025	1	Solid	NO	0.00	01/31/2025	13:23
33	Q1241-16	JPP-5.4-013025	1	Solid	NO	0.00	01/31/2025	13:30
34	Q1241-20	JPP-51.4-013025	1	Solid	NO	0.00	01/31/2025	13:37
35	Q1242-04	JPP-6.2-013025	1	Solid	NO	0.00	01/31/2025	13:45
36	Q1242-04DUP	JPP-6.2-013025DUP	1	Solid	NO	0.00	01/31/2025	13:52

$$\text{Burning Rate} = \frac{\text{Length (mm)}}{\text{Total Time (sec)}}$$

WORKLIST(Hardcopy Internal Chain)

WorkList Name : ign-1-29

WorkList ID : 187339

Department : Wet-Chemistry

Date : 01-31-2025 08:37:06

66134500

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1215-04	JPP-29.1-012825	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/28/2025	1030
Q1215-08	JPP-29.2-012825	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/28/2025	1030
Q1218-01	BELL-25-002	Solid	Ignitability	Cool 4 deg C	PSEG03	N41	01/29/2025	1030
Q1218-02	BELL-25-002	Solid	Ignitability	Cool 4 deg C	PSEG03	N41	01/29/2025	1030
Q1219-01	LAW-25-0015	Solid	Ignitability	Cool 4 deg C	PSEG03	N41	01/29/2025	1030
Q1219-02	LAW-25-0015	Solid	Ignitability	Cool 4 deg C	PSEG03	N41	01/29/2025	1030
Q1221-01	CHESTNUT-CONCRETE	Solid	Ignitability	Cool 4 deg C	PSEG03	N41	01/29/2025	1030
Q1221-02	CHESTNUT-CONCRETE	Solid	Ignitability	Cool 4 deg C	PSEG03	N41	01/29/2025	1030
Q1235-04	JPP-51.2-012925	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/29/2025	1030
Q1235-08	JPP-16.1-012925	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/29/2025	1030
Q1239-01	286	Solid	Ignitability	Cool 4 deg C	PSEG03	N31	01/30/2025	1030
Q1239-02	286	Solid	Ignitability	Cool 4 deg C	PSEG03	N31	01/30/2025	1030
Q1239-04	348	Solid	Ignitability	Cool 4 deg C	PSEG03	N31	01/30/2025	1030
Q1239-05	348	Solid	Ignitability	Cool 4 deg C	PSEG03	N31	01/30/2025	1030
Q1239-07	RBR22266	Solid	Ignitability	Cool 4 deg C	PSEG03	N31	01/30/2025	1030
Q1239-08	RBR22266	Solid	Ignitability	Cool 4 deg C	PSEG03	N31	01/30/2025	1030
Q1239-10	357	Solid	Ignitability	Cool 4 deg C	PSEG03	N31	01/30/2025	1030
Q1239-11	357	Solid	Ignitability	Cool 4 deg C	PSEG03	N31	01/30/2025	1030

Date/Time 01/31/25 09:00

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 01/31/25 14:15

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

WorkList Name : IGN-1-31

WorkList ID : 187353

Department : Wet-Chemistry

Date : 01-31-2025 08:38:43

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1216-04	JPP-18.1-012825	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/28/2025	1030
Q1216-08	JPP-21.1-012825	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/28/2025	1030
Q1216-12	JPP-21.2-012825	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/28/2025	1030
Q1216-16	JPP-26.1-012825	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/28/2025	1030
Q1216-20	JPP-26.2-012825	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/28/2025	1030
Q1232-04	JPP-46.2-012925	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/28/2025	1030
Q1232-08	JPP-46.1-012925	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/29/2025	1030
Q1232-12	JPP-42.1-012925	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/29/2025	1030
Q1232-16	JPP-42.2-012925	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/29/2025	1030
Q1232-20	JPP-51.1-012925	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/29/2025	1030
Q1241-04	JPP-3.5-013025	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/29/2025	1030
Q1241-08	JPP-5.3-013025	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/30/2025	1030
Q1241-12	JPP-5.2-013025	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/30/2025	1030
Q1241-16	JPP-5.4-013025	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/30/2025	1030
Q1241-20	JPP-51.4-013025	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/30/2025	1030
Q1242-04	JPP-6.2-013025	Solid	Ignitability	Cool 4 deg C	RUTW01	E11	01/30/2025	1030

Date/Time 01/31/25 09:00
Raw Sample Received by: 12/20/25
Raw Sample Relinquished by: JACOB

Date/Time 01/31/25 14:15
Raw Sample Received by: JACOB
Raw Sample Relinquished by: 12/20/25

Analysis Method: 9034

ANALYST: rubina

Parameter: Reactive Sulfide

SUPERVISOR REVIEW BY: Iwona

Run Number: LB134502

Constant: 16000

Normality1: 0.025

Normality2: 0.025

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE, 0.025N, 4LITRE	W3105
IODINE SOLUTION .025N 1L	W3114
Starch Solution, 4L	W3149

Seq	Lab ID	True Value (mg/l)	DF	Initial Weight (g)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
1	PB166422BL		1	5.00	50	2.00	0.00	1.94	1.94	0.06	0.00	0.00	01/31/2025	14:45
2	Q1232-04		1	5.06	50	2.00	0.00	1.92	1.92	0.08	0.02	1.58	01/31/2025	14:48
3	Q1232-04DUP		1	5.06	50	2.00	0.00	1.92	1.92	0.08	0.02	1.58	01/31/2025	14:50
4	Q1232-08		1	5.04	50	2.00	0.00	1.86	1.86	0.14	0.08	6.35	01/31/2025	14:52
5	Q1232-12		1	5.01	50	2.00	0.00	1.90	1.90	0.10	0.04	3.19	01/31/2025	14:55
6	Q1232-16		1	5.04	50	2.00	0.00	1.90	1.90	0.10	0.04	3.17	01/31/2025	14:57
7	Q1232-20		1	5.04	50	2.00	0.00	1.86	1.86	0.14	0.08	6.35	01/31/2025	15:00
8	Q1235-04		1	5.07	50	2.00	0.00	1.88	1.88	0.12	0.06	4.73	01/31/2025	15:03
9	Q1235-08		1	5.05	50	2.00	0.00	1.90	1.90	0.10	0.04	3.17	01/31/2025	15:06
10	Q1239-02		1	5.03	50	2.00	0.00	1.88	1.88	0.12	0.06	4.77	01/31/2025	15:08
11	Q1239-05		1	5.05	50	2.00	0.00	1.90	1.90	0.10	0.04	3.17	01/31/2025	15:10
12	Q1239-08		1	5.02	50	2.00	0.00	1.90	1.90	0.10	0.04	3.19	01/31/2025	15:13

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

Value Corrected With Blank = ((T1 - T2 Diff) - Blank Correction(BL))

Result = ((T1 * Normality1) - ((T1 - Value Corrected With Blank) * Normality2)) * Constant / Initial Volume

Analysis Method: 9034

Parameter: Reactive Sulfide

Run Number: LB134502

ANALYST: rubina

SUPERVISOR REVIEW BY: Iwona

Constant: 16000

Normality1: 0.025

Normality2: 0.025

Reagent/Standard	Lot/Log #
SODIUM THIOSULFATE, 0.025N, 4LITRE	W3105
IODINE SOLUTION .025N 1L	W3114
Starch Solution, 4L	W3149

Seq	Lab ID	True Value (mg/l)	DF	Initial Weight (g)	Final Volume (ml)	T1 (ml)	T2 Initial	T2 Final	T2 Diff. (ml)	T1 - T2 Diff (mL)	Value Corrected With Blank	Result (ppm)	Anal Date	Anal Time
13	Q1239-11		1	5.06	50	2.00	0.00	1.92	1.92	0.08	0.02	1.58	01/31/2025	15:15
14	Q1241-04		1	5.01	50	2.00	0.00	1.90	1.90	0.10	0.04	3.19	01/31/2025	15:17
15	Q1241-08		1	5.05	50	2.00	0.00	1.86	1.86	0.14	0.08	6.34	01/31/2025	15:20
16	Q1241-12		1	5.05	50	2.00	0.00	1.90	1.90	0.10	0.04	3.17	01/31/2025	15:23
17	Q1241-16		1	5.06	50	2.00	0.00	1.92	1.92	0.08	0.02	1.58	01/31/2025	15:25
18	Q1241-20		1	5.02	50	2.00	0.00	1.90	1.90	0.10	0.04	3.19	01/31/2025	15:28
19	Q1242-04		1	5.07	50	2.00	0.00	1.86	1.86	0.14	0.08	6.31	01/31/2025	15:30

T1 = Titrant1

T2 = Titrant2

T2 Diff = T2 Final - T2 Initial

Value Corrected With Blank = ((T1 - T2 Diff) - Blank Correction(BL))

Result = ((T1 * Normality1) - ((T1 - Value Corrected With Blank) * Normality2)) * Constant / Initial Volume

Analytical Summary Report

Analysis Method: 9045D

Analyst By : jignesh

Parameter: Corrosivity

Supervisor Review By : Iwona

Run Number: LB134515

Slope : 98.6

BalanceID: WC SC-7

pH Meter ID : WC PH METER-1

Calibration Standards	Chemtech Log#
PH 4 BUFFER SOLUTION	W3107
BUFFER PH 7.00 GREEN 1PINT PK6	W3093
PH 10.01 BUFFER,COLOR CD 475ML	W3094
buffer solution pH 7 yellow	W3071
Buffer Solution, PH2 (500ml)	W3161
Buffer Solution, PH12 (500ml)	W3072

True Value of ICV = 7.00 Control Limits[+/- 0.1].

True Value of CCV1 = 2.00 Control Limits[+/- 0.1].

True Value of CCV2 = 12.00 Control Limits[+/- 0.1].

Seq	LabID	DF	Matrix	Weight (gm)	Volume (ml)	Temperature (°C)	Result (pH)	Anal Date	Anal Time
1	CAL1	1	Water	NA	NA	20.2	4.01	01/31/2025	16:45
2	CAL2	1	Water	NA	NA	20.1	7.00	01/31/2025	16:46
3	CAL3	1	Water	NA	NA	20.1	10.02	01/31/2025	16:47
4	ICV	1	Water	NA	NA	20.2	7.02	01/31/2025	16:50
5	CCV1	1	Water	NA	NA	20.2	2.01	01/31/2025	16:55
6	Q1241-04	1	Solid	20.02	20	20.5	8.62	01/31/2025	17:00
7	Q1241-04DUP	1	Solid	20.03	20	20.6	8.63	01/31/2025	17:01
8	Q1241-08	1	Solid	20.04	20	20.5	10.86	01/31/2025	17:05
9	Q1241-12	1	Solid	20.02	20	20.6	11.32	01/31/2025	17:15
10	Q1241-16	1	Solid	20.03	20	21.1	10.02	01/31/2025	17:25
11	Q1241-20	1	Solid	20.03	20	21.2	9.02	01/31/2025	17:33
12	Q1242-04	1	Solid	20.02	20	21.0	11.57	01/31/2025	18:00
13	Q1262-05	1	Solid	20.01	20	22.3	5.94	01/31/2025	18:05
14	CCV2	1	Water	NA	NA	20.3	12.02	01/31/2025	18:15

WORKLIST(Hardcopy Internal Chain)

134515

WorkList Name : corrosivity Q1242

WorkList ID : 187351

Department : Wet-Chemistry

Date : 01-31-2025 10:27:34

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1241-04	JPP-3.5-013025	Solid	Corrosivity	Cool 4 deg C	RUTW01	E11	01/30/2025	9045D
Q1241-08	JPP-5.3-013025	Solid	Corrosivity	Cool 4 deg C	RUTW01	E11	01/30/2025	9045D
Q1241-12	JPP-5.2-013025	Solid	Corrosivity	Cool 4 deg C	RUTW01	E11	01/30/2025	9045D
Q1241-16	JPP-5.4-013025	Solid	Corrosivity	Cool 4 deg C	RUTW01	E11	01/30/2025	9045D
Q1241-20	JPP-5.1.4-013025	Solid	Corrosivity	Cool 4 deg C	RUTW01	E11	01/30/2025	9045D
Q1242-04	JPP-6.2-013025	Solid	Corrosivity	Cool 4 deg C	RUTW01	E11	01/30/2025	9045D
Q1262-05	3762	Solid	Corrosivity	Cool 4 deg C	PSEG03	N41	01/31/2025	9045D

Date/Time 01/31/25 16:40
 Raw Sample Received by: SA COB
 Raw Sample Relinquished by: RS (ESL-100)

Date/Time 01/31/25 18:30
 Raw Sample Received by: RS (ESL-100)
 Raw Sample Relinquished by: SA COB

Test results

Aquakem 7.2AQ1

Page:

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

2/3/2025 11:23

Reviewed by : NF

Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	96.944	0.0	0.077	
ICB1	0.356	0.0	0.002	
CCV1	239.923	0.0	0.188	
CCB1	0.185	0.0	0.002	
PB166486BL	0.015	0.0	0.002	
Q1234-04	-0.353	0.0	0.001	
Q1234-04DUP	-0.124	0.0	0.002	
Q1232-08	-0.215	0.0	0.002	
Q1232-12	0.033	0.0	0.002	
Q1232-16	-0.012	0.0	0.002	
Q1232-20	-0.011	0.0	0.002	
Q1235-04	-0.070	0.0	0.002	
Q1235-08	-0.055	0.0	0.002	
Q1239-02	0.195	0.0	0.002	
CCV2	235.196	0.0	0.184	
CCB2	0.278	0.0	0.002	
Q1239-05	0.024	0.0	0.002	
Q1239-08	0.110	0.0	0.002	
Q1239-11	0.102	0.0	0.002	
Q1241-04	0.000	0.0	0.002	
Q1241-08	0.011	0.0	0.002	
Q1241-12	0.173	0.0	0.002	
Q1241-16	0.146	0.0	0.002	
Q1241-20	0.104	0.0	0.002	
Q1242-04	0.956	0.0	0.002	
Q1262-05	0.091	0.0	0.002	
CCV3	252.903	0.0	0.198	
CCB3	0.622	0.0	0.002	
N	28			
Mean	29.555			
SD	77.4077			
CV%	261.91			

Aquakem v. 7.2AQ1

Results from time period:

Mon Feb 03 10:10:02 2025

Mon Feb 03 11:20:34 2025

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	0.9545	µg/l	2/3/2025 10:28:49	
5.0PPBCN	A	Total CN	P	4.6167	µg/l	2/3/2025 10:28:50	
10PPBCN	A	Total CN	P	10.1554	µg/l	2/3/2025 10:28:51	
50PPBCN	A	Total CN	P	49.3909	µg/l	2/3/2025 10:28:52	
100PPBCN	A	Total CN	P	99.9468	µg/l	2/3/2025 10:28:53	
250PPBCN	A	Total CN	P	249.7268	µg/l	2/3/2025 10:28:54	
500PPBCN	A	Total CN	P	500.2089	µg/l	2/3/2025 10:28:55	
ICV1	S	Total CN	P	96.9439	µg/l	2/3/2025 11:01:06	
ICB1	S	Total CN	P	0.3561	µg/l	2/3/2025 11:01:08	
CCV1	S	Total CN	P	239.9227	µg/l	2/3/2025 11:01:10	
CCB1	S	Total CN	P	0.1851	µg/l	2/3/2025 11:01:11	
PB166486BL	S	Total CN	P	0.0149	µg/l	2/3/2025 11:01:13	
Q1234-04	S	Total CN	P	-0.3526	µg/l	2/3/2025 11:01:15	
Q1234-04DUP	S	Total CN	P	-0.1238	µg/l	2/3/2025 11:08:40	
Q1232-08	S	Total CN	P	-0.2155	µg/l	2/3/2025 11:08:41	
Q1232-12	S	Total CN	P	0.0334	µg/l	2/3/2025 11:08:42	
Q1232-16	S	Total CN	P	-0.0122	µg/l	2/3/2025 11:08:43	
Q1232-20	S	Total CN	P	-0.0112	µg/l	2/3/2025 11:08:44	
Q1235-04	S	Total CN	P	-0.07	µg/l	2/3/2025 11:08:45	
Q1235-08	S	Total CN	P	-0.0548	µg/l	2/3/2025 11:08:46	
Q1239-02	S	Total CN	P	0.1949	µg/l	2/3/2025 11:08:47	
CCV2	S	Total CN	P	235.1959	µg/l	2/3/2025 11:08:49	
CCB2	S	Total CN	P	0.2784	µg/l	2/3/2025 11:08:50	
Q1239-05	S	Total CN	P	0.024	µg/l	2/3/2025 11:16:13	
Q1239-08	S	Total CN	P	0.1103	µg/l	2/3/2025 11:16:14	
Q1239-11	S	Total CN	P	0.1024	µg/l	2/3/2025 11:16:15	
Q1241-04	S	Total CN	P	0.0004	µg/l	2/3/2025 11:16:16	
Q1241-08	S	Total CN	P	0.0114	µg/l	2/3/2025 11:16:17	
Q1241-12	S	Total CN	P	0.1734	µg/l	2/3/2025 11:16:18	
Q1241-16	S	Total CN	P	0.1455	µg/l	2/3/2025 11:16:19	
Q1241-20	S	Total CN	P	0.1042	µg/l	2/3/2025 11:16:20	
Q1242-04	S	Total CN	P	0.9556	µg/l	2/3/2025 11:16:21	
Q1262-05	S	Total CN	P	0.0912	µg/l	2/3/2025 11:16:22	
CCV3	S	Total CN	P	252.9033	µg/l	2/3/2025 11:20:33	
CCB3	S	Total CN	P	0.6217	µg/l	2/3/2025 11:20:34	

Calibration results

Aquakem 7.2AQ1

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

Reviewed by : NF

Instrument ID : Konelab

2/3/2025 10:31

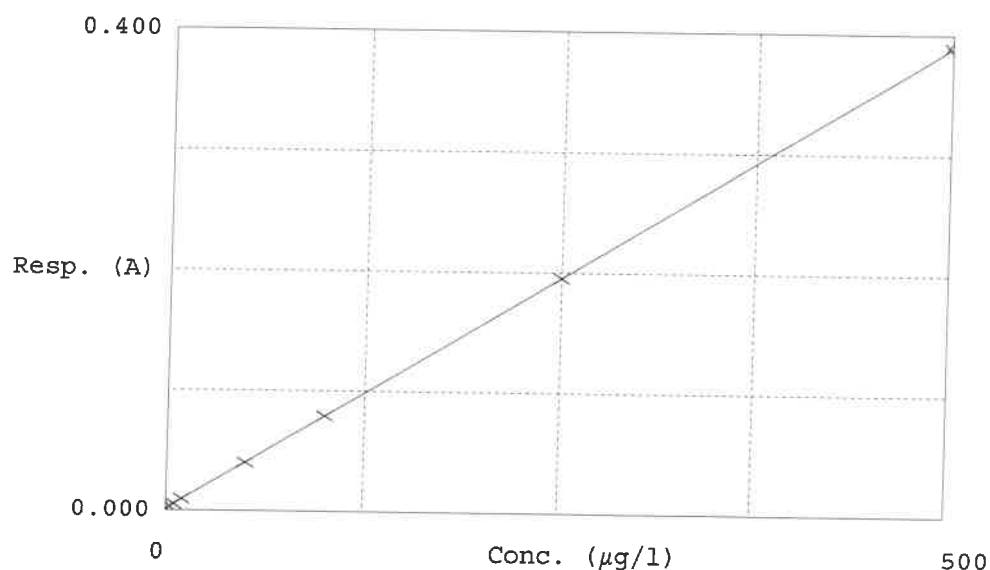
Test Total CN

Accepted 2/3/2025 10:31

Factor 1290
Bias 0.002

Coeff. of det. 0.999992

Errors



	Calibrator	Response	Calc. con.	Conc.	Re Errors
1	0.0PPBCN	0.002	0.9545	0.0000	
2	5.0PPBCN	0.005	4.6167	5.0000	-7.7
3	10PPBCN	0.010	10.1554	10.0000	1.6
4	50PPBCN	0.040	49.3909	50.0000	-1.2
5	100PPBCN	0.079	99.9468	100.0000	-0.1
6	250PPBCN	0.195	249.7268	250.0000	-0.1
7	500PPBCN	0.390	500.2089	500.0000	0.0

NF

02.03.2025

Analytical Summary Report

Analysis Method: 9095B
Parameter: Paint Filter
Run Number: LB134531

Reviewed By: rubina
Supervisor Review By: Iwona
BalanceID: WC SC-7

Seq	LabID	ClientID	Dilution	Weight (g)	Inst. Conc (ml/100g)	Anal Date	Anal Time
1	Q1232-03	JPP-46.2-012925	1	100.07	0.00	02/04/2025	08:25
2	Q1232-03DUP	JPP-46.2-012925DUP	1	100.07	0.00	02/04/2025	08:32
3	Q1232-07	JPP-46.1-012925	1	100.04	0.00	02/04/2025	08:40
4	Q1232-11	JPP-42.1-012925	1	100.02	0.00	02/04/2025	08:47
5	Q1232-15	JPP-42.2-012925	1	100.07	0.00	02/04/2025	08:55
6	Q1232-19	JPP-51.1-012925	1	100.06	0.00	02/04/2025	09:02
7	Q1241-03	JPP-3.5-013025	1	100.05	0.00	02/04/2025	09:10
8	Q1241-07	JPP-5.3-013025	1	100.07	0.00	02/04/2025	09:17
9	Q1241-11	JPP-5.2-013025	1	100.02	0.00	02/04/2025	09:25
10	Q1241-15	JPP-5.4-013025	1	100.03	0.00	02/04/2025	09:32
11	Q1241-19	JPP-51.4-013025	1	100.05	0.00	02/04/2025	09:40
12	Q1242-03	JPP-6.2-013025	1	100.02	0.00	02/04/2025	09:48
13	Q1254-01	OK-02-01312025	1	100.06	0.00	02/04/2025	09:55
14	Q1261-01	CHRT-20430	1	100.02	0.00	02/04/2025	10:02
15	Q1262-01	ETGI-371	1	100.07	0.00	02/04/2025	10:10
16	Q1262-03	CONCRETE-PAD	1	100.05	0.00	02/04/2025	10:18
17	Q1269-01	VNJ-231	1	100.03	0.00	02/04/2025	10:25
18	Q1271-01	RBR200030	1	100.03	0.00	02/04/2025	10:32
19	Q1276-01	TR-05-020325	1	100.05	0.00	02/04/2025	10:40
20	Q1277-02	RT 3249	1	100.04	0.00	02/04/2025	10:48
21	Q1280-01	72-11984	1	100.04	0.00	02/04/2025	10:55
22	Q1281-01	OR-02--2-03-2025	1	100.08	0.00	02/04/2025	11:02
23	Q1281-01DUP	OR-02--2-03-2025DUP	1	100.08	0.00	02/04/2025	11:10

WORKLIST(Hardcopy Internal Chain)

66134531

WorkList Name : PF-1-31 WorkList ID : 187354 Department : Wet-Chemistry Date : 01-31-2025 11:44:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1232-03	JPP-46.2-012925	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/29/2025	9095B
Q1232-07	JPP-46.1-012925	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/29/2025	9095B
Q1232-11	JPP-42.1-012925	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/29/2025	9095B
Q1232-15	JPP-42.2-012925	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/29/2025	9095B
Q1232-19	JPP-51.1-012925	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/29/2025	9095B
Q1241-03	JPP-3.5-013025	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/29/2025	9095B
Q1241-07	JPP-5.3-013025	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/30/2025	9095B
Q1241-11	JPP-5.2-013025	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/30/2025	9095B
Q1241-15	JPP-5.4-013025	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/30/2025	9095B
Q1241-19	JPP-51.4-013025	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/30/2025	9095B
Q1242-03	JPP-6.2-013025	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/30/2025	9095B
Q1261-01	CHRT-20430	Solid	Paint Filter	Cool 4 deg C	RUTW01	E11	01/30/2025	9095B
Q1262-01	ETGI-371	Solid	Paint Filter	Cool 4 deg C	PSEG03	N31	01/31/2025	9095B
Q1262-03	CONCRETE-PAD	Solid	Paint Filter	Cool 4 deg C	PSEG03	N41	01/31/2025	9095B
Q1269-01	VNJ-231	Solid	Paint Filter	Cool 4 deg C	PSEG03	N41	01/31/2025	9095B
Q1271-01	RBR200030	Solid	Paint Filter	Cool 4 deg C	PSEG03	D11	01/31/2025	9095B
Q1277-02	RT 3249	Solid	Paint Filter	Cool 4 deg C	PSEG03	D21	01/31/2025	9095B
Q1280-01	72-11984	Solid	Paint Filter	Cool 4 deg C	PSEG03	D11	02/03/2025	9095B
Q1254-01	OK-02-01312025	Solid	Paint Filter	Cool 4 deg C	PSEG03	D11	02/03/2025	9095B
Q1276-01	TR-05-020325	Solid	Paint Filter	Cool 4 deg C	PSEG05	N41	01/31/2025	9095B
Q1281-01	OR-02-2-03-2025	Solid	Paint Filter	Cool 4 deg C	PSEG05	D11	02/03/2025	9095B
		Solid	Paint Filter	Cool 4 deg C	PSEG05	D11	02/03/2025	9095B

Date/Time 02/04/2025 08.15
Raw Sample Received by: RM
Raw Sample Relinquished by: [Signature]

Date/Time 02/04/2025 11.25
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: RM

SOP ID : M9030B-Sulfide-12

SDG No : N/A

Matrix : SOIL

Pipette ID : WC

Balance ID : WC SC-7

Hood ID : HOOD#1

Block ID : MC-1,MC-2

Weigh By : RM

Start Digest Date: 01/31/2025 Time : 08:50 Temp : N/A

End Digest Date: 01/31/2025 Time : 10:20 Temp : N/A

Digestion tube ID : M5595

Filter paper ID : N/A

pH Meter ID : N/A

Block Thermometer ID : N/A

Prep Technician Signature: RM

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
PBS003	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.5M ZINC ACETATE	5.0ML	WP111004
FORMALDEHYDE	2.0ML	W2725
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

N/A

01/31/2025
RM

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

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/Nitrite	Comment	Prep Pos
PB166422BL	PBS422	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-04DUP	JPP-46.2-012925DUP	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-04	JPP-46.2-012925	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-08	JPP-46.1-012925	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-12	JPP-42.1-012925	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-16	JPP-42.2-012925	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-20	JPP-51.1-012925	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1235-04	JPP-51.2-012925	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1235-08	JPP-16.1-012925	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1239-02	286	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1239-05	348	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1239-08	RBR22266	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1239-11	357	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-04	JPP-3.5-013025	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-08	JPP-5.3-013025	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-12	JPP-5.2-013025	5.05	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-16	JPP-5.4-013025	5.06	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-20	JPP-51.4-013025	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1242-04	JPP-6.2-013025	5.07	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : rsul-1-31

WorkList ID : 187342

Department : Distillation

Date : 01-31-2025 08:22:40

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1232-04	JPP-46.2-012925	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/29/2025	9034
Q1232-08	JPP-46.1-012925	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/29/2025	9034
Q1232-12	JPP-42.1-012925	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/29/2025	9034
Q1232-16	JPP-42.2-012925	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/29/2025	9034
Q1232-20	JPP-51.1-012925	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/29/2025	9034
Q1235-04	JPP-51.2-012925	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/29/2025	9034
Q1235-08	JPP-16.1-012925	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/29/2025	9034
Q1239-02	286	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/29/2025	9034
Q1239-05	348	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	N31	01/30/2025	9034
Q1239-08	RBR22266	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	N31	01/30/2025	9034
Q1239-11	357	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	N31	01/30/2025	9034
Q1241-04	JPP-3.5-013025	Solid	Reactive Sulfide	Cool 4 deg C	PSEG03	N31	01/30/2025	9034
Q1241-08	JPP-5.3-013025	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/30/2025	9034
Q1241-12	JPP-5.2-013025	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/30/2025	9034
Q1241-16	JPP-5.4-013025	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/30/2025	9034
Q1241-20	JPP-51.4-013025	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/30/2025	9034
Q1242-04	JPP-6.2-013025	Solid	Reactive Sulfide	Cool 4 deg C	RUTW01	E11	01/30/2025	9034

Date/Time 01/31/2025 08:25

Raw Sample Received by: RIM cwc

Raw Sample Relinquished by: JH (WLC)

Date/Time 01/31/2025 09:00

Raw Sample Received by: JH cwc

Raw Sample Relinquished by: RIM cwc

SOP ID : M9012B-Total, Amenable and Reactive Cyanide-20

SDG No : N/A

Start Digest Date: 02/03/2025 Time : 09:00 Temp : N/A

Matrix : SOIL

End Digest Date: 02/03/2025 Time : 10:30 Temp : N/A

Pipette ID : N/A

Balance ID : WC SC-7

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : N/A

Block ID : MC-1, MC-2

Filter paper ID : N/A

Prep Technician Signature: NF

Weigh By : NF

pH Meter ID : N/A

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
PBS003	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP111294
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Comment

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
02.03.2025, 10:40	NF(WC)	NF(WC)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/Nitrite	Comment	Prep Pos
PB166486BL	PBS486	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-04DUP	JPP-46.2-012925DUP	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-04	JPP-46.2-012925	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-08	JPP-46.1-012925	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-12	JPP-42.1-012925	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-16	JPP-42.2-012925	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1232-20	JPP-51.1-012925	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1235-04	JPP-51.2-012925	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1235-08	JPP-16.1-012925	5.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1239-02	286	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1239-05	348	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1239-08	RBR22266	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1239-11	357	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-04	JPP-3.5-013025	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-08	JPP-5.3-013025	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-12	JPP-5.2-013025	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-16	JPP-5.4-013025	5.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1241-20	JPP-51.4-013025	5.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1242-04	JPP-6.2-013025	5.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q1262-05	3762	5.02	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : RCN S-02032025

WorkList ID : 187409

Department : Distillation

Date : 02-03-2025 08:30:32

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1232-04	JPP-46.2-012925	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/29/2025	9012B
Q1232-08	JPP-46.1-012925	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/29/2025	9012B
Q1232-12	JPP-42.1-012925	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/29/2025	9012B
Q1232-16	JPP-42.2-012925	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/29/2025	9012B
Q1232-20	JPP-51.1-012925	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/29/2025	9012B
Q1235-04	JPP-51.2-012925	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/29/2025	9012B
Q1235-08	JPP-16.1-012925	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/29/2025	9012B
Q1239-02	286	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/29/2025	9012B
Q1239-05	348	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	N31	01/30/2025	9012B
Q1239-08	RBR22266	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	N31	01/30/2025	9012B
Q1239-11	357	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	N31	01/30/2025	9012B
Q1241-04	JPP-3.5-013025	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	N31	01/30/2025	9012B
Q1241-08	JPP-5.3-013025	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/30/2025	9012B
Q1241-12	JPP-5.2-013025	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/30/2025	9012B
Q1241-16	JPP-5.4-013025	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/30/2025	9012B
Q1241-20	JPP-51.4-013025	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/30/2025	9012B
Q1242-04	JPP-6.2-013025	Solid	Reactive Cyanide	Cool 4 deg C	RUTW01	E11	01/30/2025	9012B
Q1262-05	3762	Solid	Reactive Cyanide	Cool 4 deg C	PSEG03	N41	01/31/2025	9012B

Date/Time 02.03.2025 08:40
 Raw Sample Received by: NFWCJ
 Raw Sample Relinquished by: NFWCJ

Date/Time 02.03.2025 11:00
 Raw Sample Received by: NFWCJ
 Raw Sample Relinquished by: NFWCJ

Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QC Batch ID # LB134500

Review By	Iwona	Review On	1/31/2025 2:36:23 PM
Supervise By	jignesh	Supervise On	1/31/2025 2:39:27 PM
SubDirectory	LB134500	Test	Ignitability
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	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	Q1215-04	JPP-29.1-012825	SAM	01/31/25 09:30		Iwona	OK
2	Q1215-04DUP	JPP-29.1-012825DUP	DUP	01/31/25 09:38		Iwona	OK
3	Q1215-08	JPP-29.2-012825	SAM	01/31/25 09:45		Iwona	OK
4	Q1216-04	JPP-18.1-012825	SAM	01/31/25 09:52		Iwona	OK
5	Q1216-08	JPP-21.1-012825	SAM	01/31/25 10:00		Iwona	OK
6	Q1216-12	JPP-21.2-012825	SAM	01/31/25 10:08		Iwona	OK
7	Q1216-16	JPP-26.1-012825	SAM	01/31/25 10:15		Iwona	OK
8	Q1216-20	JPP-26.2-012825	SAM	01/31/25 10:22		Iwona	OK
9	Q1218-01	BELL-25-002	SAM	01/31/25 10:30		Iwona	OK
10	Q1218-02	BELL-25-002	SAM	01/31/25 10:38		Iwona	OK
11	Q1219-01	LAW-25-0015	SAM	01/31/25 10:45		Iwona	OK
12	Q1219-02	LAW-25-0015	SAM	01/31/25 10:52		Iwona	OK
13	Q1221-01	CHESTNUT-CONCRE	SAM	01/31/25 11:00		Iwona	OK
14	Q1221-02	CHESTNUT-CONCRE	SAM	01/31/25 11:08		Iwona	OK
15	Q1232-04	JPP-46.2-012925	SAM	01/31/25 11:15		Iwona	OK
16	Q1232-08	JPP-46.1-012925	SAM	01/31/25 11:22		Iwona	OK
17	Q1232-12	JPP-42.1-012925	SAM	01/31/25 11:30		Iwona	OK
18	Q1232-16	JPP-42.2-012925	SAM	01/31/25 11:38		Iwona	OK

Instrument ID: FLAME

Daily Analysis Runlog For Sequence/QC Batch ID # LB134500

Review By	Iwona	Review On	1/31/2025 2:36:23 PM
Supervise By	jignesh	Supervise On	1/31/2025 2:39:27 PM
SubDirectory	LB134500	Test	Ignitability
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	N/A		

19	Q1232-20	JPP-51.1-012925	SAM	01/31/25 11:45		Iwona	OK
20	Q1235-04	JPP-51.2-012925	SAM	01/31/25 11:52		Iwona	OK
21	Q1235-08	JPP-16.1-012925	SAM	01/31/25 12:00		Iwona	OK
22	Q1239-01	286	SAM	01/31/25 12:08		Iwona	OK
23	Q1239-02	286	SAM	01/31/25 12:15		Iwona	OK
24	Q1239-04	348	SAM	01/31/25 12:23		Iwona	OK
25	Q1239-05	348	SAM	01/31/25 12:30		Iwona	OK
26	Q1239-07	RBR22266	SAM	01/31/25 12:38		Iwona	OK
27	Q1239-08	RBR22266	SAM	01/31/25 12:45		Iwona	OK
28	Q1239-10	357	SAM	01/31/25 12:52		Iwona	OK
29	Q1239-11	357	SAM	01/31/25 13:00		Iwona	OK
30	Q1241-04	JPP-3.5-013025	SAM	01/31/25 13:07		Iwona	OK
31	Q1241-08	JPP-5.3-013025	SAM	01/31/25 13:15		Iwona	OK
32	Q1241-12	JPP-5.2-013025	SAM	01/31/25 13:23		Iwona	OK
33	Q1241-16	JPP-5.4-013025	SAM	01/31/25 13:30		Iwona	OK
34	Q1241-20	JPP-51.4-013025	SAM	01/31/25 13:37		Iwona	OK
35	Q1242-04	JPP-6.2-013025	SAM	01/31/25 13:45		Iwona	OK
36	Q1242-04DUP	JPP-6.2-013025DUP	DUP	01/31/25 13:52		Iwona	OK

Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB134502

Review By	rubina	Review On	1/31/2025 4:38:28 PM
Supervise By	Iwona	Supervise On	1/31/2025 4:39:21 PM
SubDirectory	LB134502	Test	Reactive Sulfide
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	W3105,W3114,W3149		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	PB166422BL	PB166422BL	MB	01/31/25 14:45		rubina	OK
2	Q1232-04	JPP-46.2-012925	SAM	01/31/25 14:48		rubina	OK
3	Q1232-04DUP	JPP-46.2-012925DUP	DUP	01/31/25 14:50		rubina	OK
4	Q1232-08	JPP-46.1-012925	SAM	01/31/25 14:52		rubina	OK
5	Q1232-12	JPP-42.1-012925	SAM	01/31/25 14:55		rubina	OK
6	Q1232-16	JPP-42.2-012925	SAM	01/31/25 14:57		rubina	OK
7	Q1232-20	JPP-51.1-012925	SAM	01/31/25 15:00		rubina	OK
8	Q1235-04	JPP-51.2-012925	SAM	01/31/25 15:03		rubina	OK
9	Q1235-08	JPP-16.1-012925	SAM	01/31/25 15:06		rubina	OK
10	Q1239-02	286	SAM	01/31/25 15:08		rubina	OK
11	Q1239-05	348	SAM	01/31/25 15:10		rubina	OK
12	Q1239-08	RBR22266	SAM	01/31/25 15:13		rubina	OK
13	Q1239-11	357	SAM	01/31/25 15:15		rubina	OK
14	Q1241-04	JPP-3.5-013025	SAM	01/31/25 15:17		rubina	OK
15	Q1241-08	JPP-5.3-013025	SAM	01/31/25 15:20		rubina	OK
16	Q1241-12	JPP-5.2-013025	SAM	01/31/25 15:23		rubina	OK
17	Q1241-16	JPP-5.4-013025	SAM	01/31/25 15:25		rubina	OK
18	Q1241-20	JPP-51.4-013025	SAM	01/31/25 15:28		rubina	OK

Instrument ID: TITRAMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB134502

Review By	rubina	Review On	1/31/2025 4:38:28 PM
Supervise By	Iwona	Supervise On	1/31/2025 4:39:21 PM
SubDirectory	LB134502	Test	Reactive Sulfide
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	W3105,W3114,W3149		

19	Q1242-04	JPP-6.2-013025	SAM	01/31/25 15:30		rubina	OK
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Instrument ID: WC PH METER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB134515

Review By	jignesh	Review On	2/1/2025 10:10:59 AM
Supervise By	Iwona	Supervise On	2/3/2025 9:32:19 AM
SubDirectory	LB134515	Test	Corrosivity
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	W3107,W3093,W3094,W3071,W3161,W3072		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	01/31/25 16:45		Jignesh	OK
2	CAL2	CAL2	CAL	01/31/25 16:46		Jignesh	OK
3	CAL3	CAL3	CAL	01/31/25 16:47		Jignesh	OK
4	ICV	ICV	ICV	01/31/25 16:50		Jignesh	OK
5	CCV1	CCV1	CCV	01/31/25 16:55		Jignesh	OK
6	Q1241-04	JPP-3.5-013025	SAM	01/31/25 17:00		Jignesh	OK
7	Q1241-04DUP	JPP-3.5-013025DUP	DUP	01/31/25 17:01		Jignesh	OK
8	Q1241-08	JPP-5.3-013025	SAM	01/31/25 17:05		Jignesh	OK
9	Q1241-12	JPP-5.2-013025	SAM	01/31/25 17:15		Jignesh	OK
10	Q1241-16	JPP-5.4-013025	SAM	01/31/25 17:25		Jignesh	OK
11	Q1241-20	JPP-51.4-013025	SAM	01/31/25 17:33		Jignesh	OK
12	Q1242-04	JPP-6.2-013025	SAM	01/31/25 18:00		Jignesh	OK
13	Q1262-05	3762	SAM	01/31/25 18:05		Jignesh	OK
14	CCV2	CCV2	CCV	01/31/25 18:15		Jignesh	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134524

Review By	Niha	Review On	2/4/2025 9:20:11 AM
Supervise By	Iwona	Supervise On	2/4/2025 10:15:19 AM
SubDirectory	LB134524	Test	Reactive Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111747,WP111748,WP111749,WP111750,WP111751,WP111752,WP111753		
ICV Standard	WP111754		
CCV Standard	WP111748		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP111035,WP110103,WP111755		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	02/03/25 10:28		Niha	OK
2	5.0PPBCN	5.0PPBCN	CAL2	02/03/25 10:28		Niha	OK
3	10PPBCN	10PPBCN	CAL3	02/03/25 10:28		Niha	OK
4	50PPBCN	50PPBCN	CAL4	02/03/25 10:28		Niha	OK
5	100PPBCN	100PPBCN	CAL5	02/03/25 10:28		Niha	OK
6	250PPBCN	250PPBCN	CAL6	02/03/25 10:28		Niha	OK
7	500PPBCN	500PPBCN	CAL7	02/03/25 10:28		Niha	OK
8	ICV1	ICV1	ICV	02/03/25 11:01		Niha	OK
9	ICB1	ICB1	ICB	02/03/25 11:01		Niha	OK
10	CCV1	CCV1	CCV	02/03/25 11:01		Niha	OK
11	CCB1	CCB1	CCB	02/03/25 11:01		Niha	OK
12	PB166486BL	PB166486BL	MB	02/03/25 11:01		Niha	OK
13	Q1232-04	JPP-46.2-012925	SAM	02/03/25 11:01		Niha	OK
14	Q1232-04DUP	JPP-46.2-012925DUP	DUP	02/03/25 11:08		Niha	OK
15	Q1232-08	JPP-46.1-012925	SAM	02/03/25 11:08		Niha	OK
16	Q1232-12	JPP-42.1-012925	SAM	02/03/25 11:08		Niha	OK
17	Q1232-16	JPP-42.2-012925	SAM	02/03/25 11:08		Niha	OK
18	Q1232-20	JPP-51.1-012925	SAM	02/03/25 11:08		Niha	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB134524

Review By	Niha	Review On	2/4/2025 9:20:11 AM
Supervise By	Iwona	Supervise On	2/4/2025 10:15:19 AM
SubDirectory	LB134524	Test	Reactive Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP111747,WP111748,WP111749,WP111750,WP111751,WP111752,WP111753		
ICV Standard	WP111754		
CCV Standard	WP111748		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP111035,WP110103,WP111755		

19	Q1235-04	JPP-51.2-012925	SAM	02/03/25 11:08		Niha	OK
20	Q1235-08	JPP-16.1-012925	SAM	02/03/25 11:08		Niha	OK
21	Q1239-02	286	SAM	02/03/25 11:08		Niha	OK
22	CCV2	CCV2	CCV	02/03/25 11:08		Niha	OK
23	CCB2	CCB2	CCB	02/03/25 11:08		Niha	OK
24	Q1239-05	348	SAM	02/03/25 11:16		Niha	OK
25	Q1239-08	RBR22266	SAM	02/03/25 11:16		Niha	OK
26	Q1239-11	357	SAM	02/03/25 11:16		Niha	OK
27	Q1241-04	JPP-3.5-013025	SAM	02/03/25 11:16		Niha	OK
28	Q1241-08	JPP-5.3-013025	SAM	02/03/25 11:16		Niha	OK
29	Q1241-12	JPP-5.2-013025	SAM	02/03/25 11:16		Niha	OK
30	Q1241-16	JPP-5.4-013025	SAM	02/03/25 11:16		Niha	OK
31	Q1241-20	JPP-51.4-013025	SAM	02/03/25 11:16		Niha	OK
32	Q1242-04	JPP-6.2-013025	SAM	02/03/25 11:16		Niha	OK
33	Q1262-05	3762	SAM	02/03/25 11:16		Niha	OK
34	CCV3	CCV3	CCV	02/03/25 11:20		Niha	OK
35	CCB3	CCB3	CCB	02/03/25 11:20		Niha	OK

Instrument ID: FILTER/GRAVIMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB134531

Review By	rubina	Review On	2/4/2025 11:33:48 AM
Supervise By	Iwona	Supervise On	2/4/2025 1:01:03 PM
SubDirectory	LB134531	Test	Paint Filter
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	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	Q1232-03	JPP-46.2-012925	SAM	02/04/25 08:25		rubina	OK
2	Q1232-03DUP	JPP-46.2-012925DUP	DUP	02/04/25 08:32		rubina	OK
3	Q1232-07	JPP-46.1-012925	SAM	02/04/25 08:40		rubina	OK
4	Q1232-11	JPP-42.1-012925	SAM	02/04/25 08:47		rubina	OK
5	Q1232-15	JPP-42.2-012925	SAM	02/04/25 08:55		rubina	OK
6	Q1232-19	JPP-51.1-012925	SAM	02/04/25 09:02		rubina	OK
7	Q1241-03	JPP-3.5-013025	SAM	02/04/25 09:10		rubina	OK
8	Q1241-07	JPP-5.3-013025	SAM	02/04/25 09:17		rubina	OK
9	Q1241-11	JPP-5.2-013025	SAM	02/04/25 09:25		rubina	OK
10	Q1241-15	JPP-5.4-013025	SAM	02/04/25 09:32		rubina	OK
11	Q1241-19	JPP-51.4-013025	SAM	02/04/25 09:40		rubina	OK
12	Q1242-03	JPP-6.2-013025	SAM	02/04/25 09:48		rubina	OK
13	Q1254-01	OK-02-01312025	SAM	02/04/25 09:55		rubina	OK
14	Q1261-01	CHRT-20430	SAM	02/04/25 10:02		rubina	OK
15	Q1262-01	ETGI-371	SAM	02/04/25 10:10		rubina	OK
16	Q1262-03	CONCRETE-PAD	SAM	02/04/25 10:18		rubina	OK
17	Q1269-01	VNJ-231	SAM	02/04/25 10:25		rubina	OK
18	Q1271-01	RBR200030	SAM	02/04/25 10:32		rubina	OK

Instrument ID: FILTER/GRAVIMETRIC

Daily Analysis Runlog For Sequence/QC Batch ID # LB134531

Review By	rubina	Review On	2/4/2025 11:33:48 AM
Supervise By	Iwona	Supervise On	2/4/2025 1:01:03 PM
SubDirectory	LB134531	Test	Paint Filter
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	N/A		

19	Q1276-01	TR-05-020325	SAM	02/04/25 10:40		rubina	OK
20	Q1277-02	RT 3249	SAM	02/04/25 10:48		rubina	OK
21	Q1280-01	72-11984	SAM	02/04/25 10:55		rubina	OK
22	Q1281-01	OR-02--2-03-2025	SAM	02/04/25 11:02		rubina	OK
23	Q1281-01DUP	OR-02--2-03-2025DU	DUP	02/04/25 11:10		rubina	OK

Prep Standard - Chemical Standard Summary

Order ID : Q1241

Test : Corrosivity, Ignitability, Paint Filter, Percent Solids, Reactive Cyanide, Reactive Sulfide

Prepbatch ID : PB166422, PB166486,

Sequence ID/Qc Batch ID: LB134500, LB134502, LB134515, LB134524, LB134531,

Standard ID :

WP110103, WP111004, WP111035, WP111294, WP111296, WP111746, WP111747, WP111748, WP111749, WP111750, WP111751, WP111752, WP111753, WP111754, WP111755,

Chemical ID :

M6121, W2668, W2725, W2882, W2926, W3019, W3071, W3072, W3093, W3094, W3105, W3107, W3112, W3113, W3114, W3138, W3139, W3149, W3154, W3161,

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
539	CN BUFFER	WP110103	10/08/2024	04/08/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/08/2024
FROM 138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
160	0.5M ZINC ACETATE	WP111004	12/09/2024	05/13/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 12/09/2024
FROM 0.88900L of W3112 + 1.00000ml of M6121 + 110.00000gram of W2926 = Final Quantity: 1000.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
607	PYRIDINE-BARBITURIC ACID	WP111035	12/09/2024	04/30/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych 12/10/2024
FROM 145.00000ml of W3112 + 15.00000gram of W2882 + 15.00000ml of M6121 + 75.00000ml of W3019 = Final Quantity: 250.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
11	Sodium hydroxide absorbing solution 0.25 N	WP111294	01/07/2025	07/07/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 01/07/2025
FROM 21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	WP111296	01/07/2025	07/07/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 01/07/2025
FROM 1.00000ml of W3138 + 199.00000ml of WP111294 = Final Quantity: 200.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3456	Cyanide Intermediate Working Std, 5PPM	WP111746	02/03/2025	02/04/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/04/2025
FROM 0.25000ml of W3154 + 49.75000ml of WP111294 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4	Calibration standard 500 ppb	WP111747	02/03/2025	02/04/2025	Niha Farheen Shaik	None	None	Iwona Zarych 02/04/2025

FROM 45.00000ml of WP111294 + 5.00000ml of WP111746 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3761	Calibration-CCV CN Standard 250 ppb	WP111748	02/03/2025	02/04/2025	Niha Farheen Shaik	None	None	Iwona Zarych 02/04/2025

FROM 2.50000ml of WP111746 + 47.50000ml of WP111294 = Final Quantity: 50.000 ml

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
6	Calibration Standard 100 ppb	WP111749	02/03/2025	02/04/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/04/2025
FROM 1.00000ml of WP111746 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
7	Calibration Standard 50 ppb	WP111750	02/03/2025	02/04/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/04/2025
FROM 0.50000ml of WP111746 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
8	Calibration Standard 10 ppb	WP111751	02/03/2025	02/04/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/04/2025
FROM 1.00000ml of WP111747 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
167	0 ppb CN calibration std	WP111752	02/03/2025	02/04/2025	Niha Farheen Shaik	None	None	Iwona Zarych 02/04/2025
FROM 50.00000ml of WP111294 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
9	Calibration Standard 5 ppb	WP111753	02/03/2025	02/04/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/04/2025
FROM 0.50000ml of WP111747 + 49.50000ml of WP111294 = Final Quantity: 50.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2168	RCN ICV STD, 100 PPB	WP111754	02/03/2025	02/04/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 02/04/2025
FROM 1.00000ml of WP111296 + 49.00000ml of WP111294 = Final Quantity: 50.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1582	Chloramine T solution, 0.014M	WP111755	02/03/2025	02/04/2025	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych 02/04/2025
FROM 0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-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.	J3818-5 / SODIUM PHOSPHATE, MONOBAS/HYD, CRYST, ACS, 2.5 KG	0000225799	12/03/2025	04/05/2021 / Alexander	02/10/2020 / apatel	W2668

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EMD-FX0410-5 / FORMALDEHYDE SOLUTION 450ML	60045	06/22/2025	08/19/2024 / lwona	06/22/2020 / apatel	W2725

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-BX0035-3 / Barbituric Acid, 100 gms	1.00132.0100	04/30/2025	12/07/2021 /	11/30/2021 / apatel	W2882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J4296-1 / ZINC ACETATE, DIHYD, CRYST, ACS, 500G	383058	07/05/2027	07/05/2022 / ketankumar	07/05/2022 / ketankumar	W2926

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	270970-1L / Pyridine 1L	SHBQ2113	04/03/2028	04/03/2023 / lwona	04/03/2023 / lwona	W3019

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14455-3 / buffer solution pH 7 yellow	4308H30	07/31/2025	01/02/2024 / JIGNESH	12/06/2023 / Iwona	W3071

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14940-1 / Buffer Solution, PH12 (500ml)	2310P21	04/30/2025	01/02/2024 / JIGNESH	12/07/2023 / Iwona	W3072

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	566002 / BUFFER PH 7.00 GREEN 1PINT PK6	44001f99	12/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3093

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1601-1 / PH 10.01 BUFFER,COLOR CD 475ML	4310g83	03/31/2025	04/03/2024 / jignesh	04/02/2024 / jignesh	W3094

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL69870-8 / SODIUM THIOSULFATE,0.025N,4LIT RE	4403S13	09/30/2025	04/22/2024 / Iwona	04/22/2024 / Iwona	W3105

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL14055-3 / PH 4 BUFFER SOLUTION	AL14055-3	02/27/2026	09/05/2024 / jignesh	05/13/2024 / jignesh	W3107

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 / lwona	07/03/2024 / lwona	W3112

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL35830-4 / IODINE SOLUTION .025N 1L	2405D89	05/31/2025	07/10/2024 / lwona	07/10/2024 / lwona	W3114

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	44080060	01/30/2025	09/06/2024 / lwona	08/28/2024 / lwona	W3138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	JTE494-6 / CHLORAMINE-T BAKER 250GM	10239484	09/09/2029	09/09/2024 / lwona	09/09/2024 / lwona	W3139

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL70850-8 / Starch Solution, 4L	4408P62	08/31/2026	10/16/2024 / lwona	10/16/2024 / lwona	W3149

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1411J58	05/31/2025	12/02/2024 / Iwona	12/02/2024 / Iwona	W3154

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL13850-1 / Buffer Solution, PH2 (500ml)	2411E26	10/31/2026	12/09/2024 / Iwona	12/09/2024 / Iwona	W3161


W3071
Rec 12/6/23

Certificate of Analysis 12

Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)

Lot Number: 4308H30

Product Number: 1551

Manufacture Date: AUG 09, 2023

Expiration Date: JUL 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	45	50
pH	7.12	7.09	7.06	7.04	7.02	7.00	6.99	6.98	6.98	6.97	6.97

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Phosphate Dibasic	7558-79-4	ACS
Potassium Dihydrogen Phosphate	7778-77-0	ACS
Preservative	Proprietary	
Yellow Dye	Proprietary	
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result
Appearance	Yellow liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.002	0.02	186-I-g, 186-II-g, 191d

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer A	ASTM (D 5464)
Buffer A	ASTM (D 5128)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. 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)
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months

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



Paul Brandon (08/09/2023)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

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

W3019
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Pyridine - anhydrous, 99.8%

Product Number:

270970

Batch Number:

SHBQ2113

Brand:

SIAL

CAS Number:

110-86-1

MDL Number:

MFCD00011732

Formula:

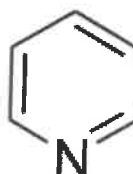
C₅H₅N

Formula Weight:

79.10 g/mol

Quality Release Date:

15 DEC 2022



Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Purity (GC)	≥ 99.75 %	99.99 %
Water (by Karl Fischer)	≤ 0.003 %	0.002 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %


Larry Coers, Director
Quality Control
Sheboygan Falls, WI US

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





RICCA CHEMICAL COMPANY®

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W 3072
REC. 12/01/23
12

Certificate of Analysis

Buffer, Reference Standard, pH 12.00 ± 0.01 at 25°C

Lot Number: 2310P21

Product Number: 1615

Manufacture Date: OCT 24, 2023

Expiration Date: APR 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

°C	15	20	25	30	35	40
pH	12.35	12.17	11.99	11.78	11.62	11.46

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Chloride	7447-40-7	ACS
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed

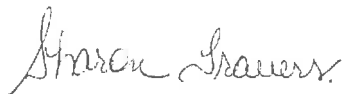
*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	12.005	0.02	186-I-g, 186-II-g, 191d

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. 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)
1615-1	4 L natural poly	18 months
1615-16	500 mL clear PET-G	18 months
1615-32	1 L natural poly	18 months
1615-5	20 L Cubitainer®	18 months

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



Sharon Travers (10/24/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

Date of Release: 2/26/2020

Name: Formaldehyde Solution
GR ACS
Meets ACS Specifications

Item No: FX0410 all size codes

Lot / Batch No: 60045

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Assay	36.5	38.0	36.71	%
Chloride (Cl)		5	<5	ppm
Color (APHA)		10	<10	
Form			Passes test	
Heavy metals (as Pb)		5	<5	ppm
Iron (Fe)		5	0.6	ppm
Residue after ignition		0.005	<0.0050	%
Sulfate (SO ₄)		0.002	<0.0020	%
Titrate acid		0.006	<0.0060	meq/g

Heather Sinn,

Quality Control Manager

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

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
U.S.A

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

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



R → 16/13/24
Met dig

M 6121

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

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl 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

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

James Ethier
Jamie Ethier
Vice President Global Quality

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

Avantor Performance Materials, LLC

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



Certificate of Analysis

1.00132.0000 Barbituric acid for analysis EMSURE®
Batch N020065932

	Spec. Values		Batch Values	
Assay (acidimetric)	≥ 99	%	99.6	%
Identity (IR-spectrum)	passes test		passes test	
Chloride (Cl)	≤ 40	ppm	≤ 40	ppm
Heavy metals (as Pb)	≤ 50	ppm	≤ 50	ppm
Fe (Iron)	≤ 10	ppm	≤ 10	ppm
Sulfated ash	≤ 0.1	%	≤ 0.1	%
Loss on Drying (105 °C)	≤ 0.1	%	≤ 0.1	%
Suitability as reagent (for cyanide determination)	passes test		passes test	

Date of release (DD.MM.YYYY) 17.04.2020
Minimum shelf life (DD.MM.YYYY) 30.04.2025

Ioannis Chartomatsidis
Responsible laboratory manager quality control

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

Sodium Phosphate, Monobasic, Monohydrate,
Crystal
BAKER ANALYZED® A.C.S. Reagent

(sodium dihydrogen phosphate, monohydrate)



Material No.: 3818-05
Batch No.: 0000225799
Manufactured Date: 2018/12/05
Retest Date: 2025/12/03
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$)	98.0 – 102.0 %	99.5
pH of 5% Solution at 25°C	4.1 – 4.5	4.3
Insoluble Matter	≤ 0.01 %	< 0.01
Chloride (Cl)	≤ 5 ppm	< 5
ACS – Sulfate (SO_4)	≤ 0.003 %	< 0.003
Calcium (Ca)	≤ 0.005 %	< 0.005
Potassium (K)	≤ 0.01 %	< 0.01
Heavy Metals (as Pb)	≤ 0.001 %	< 0.001
Trace Impurities – Iron (Fe)	≤ 0.001 %	< 0.001

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

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


Jamie Ethier
Vice President Global Quality

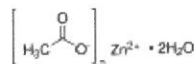
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Certificate of Analysis

Product Name:

Zinc acetate dihydrate - ACS reagent, $\geq 98\%$

Product Number: 383058
Batch Number: MKCQ9159
Brand: SIGALD
CAS Number: 5970-45-6
MDL Number: MFCD00066961
Formula: $C_4H_6O_4Zn \cdot 2H_2O$
Formula Weight: 219.51 g/mol
Quality Release Date: 06 JAN 2022



W2926
Open 7/5/22
received
on 7/5/22

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystal or Chunk(s)	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Insoluble Matter	$\leq 0.005 \%$	0.003 %
Calcium (Ca)	$\leq 0.005 \%$	0.003 %
Chloride (Cl)	$\leq 5 \text{ ppm}$	$< 5 \text{ ppm}$
Iron (Fe)	$\leq 5 \text{ ppm}$	$< 5 \text{ ppm}$
Potassium (K)	$\leq 0.01 \%$	0.00 %
Magnesium (Mg)	$\leq 0.005 \%$	0.003 %
Sodium (Na)	$\leq 0.05 \%$	0.03 %
Lead (Pb)	$\leq 0.002 \%$	$< 0.001 \%$
pH	6.0 - 7.0	6.1
Sulfate (SO ₄)	$\leq 0.005 \%$	$< 0.005 \%$
Complexometric EDTA	98.0 - 101.0 %	100.3 %
Meets ACS Requirements	Meets Requirements	Meets Requirements


Larry Coers, Director
Quality Control
Milwaukee, WI US

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





Certificate of Analysis

W3093
094121
04/03/2024
16

Buffer, Reference Standard, pH 7.00 ± 0.01 at 25°C (Color Coded Yellow)

Lot Number: 4401F99

Product Number: 1551

Manufacture Date: JAN 08, 2024

Expiration Date: DEC 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	45	50
pH	7.12	7.09	7.06	7.04	7.02	7.00	6.99	6.98	6.98	6.97	6.97

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Phosphate Dibasic	7558-79-4	ACS
Potassium Dihydrogen Phosphate	7778-77-0	ACS
Preservative	Proprietary	
Yellow Dye	Proprietary	
Sodium Hydroxide	1310-73-2	

Test	Specification	Result
Appearance	Yellow liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	7.004	0.02	186-I-g, 186-II-g, 191d

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer A	ASTM (D 5464)
Buffer A	ASTM (D 5128)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. 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)
1551-1	4 L natural poly	24 months
1551-1CT	4 L Cubitainer®	24 months
1551-2.5	10 L Cubitainer®	24 months
1551-5	20 L Cubitainer®	24 months

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



Paul Brandon (01/08/2024)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

Buffer, Reference Standard, pH 10.00 ± 0.01 at 25°C (Color Coded Blue)

Lot Number: 4310G83

Product Number: 1601

Manufacture Date: OCT 09, 2023

Expiration Date: MAR 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	50
pH	10.31	10.23	10.17	10.11	10.05	10.00	9.95	9.91	9.87	9.81

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Carbonate	497-19-8	ACS
Sodium Bicarbonate	144-55-8	ACS
Sodium Hydroxide	1310-73-2	Reagent
Preservative	Proprietary	
Blue Dye	Proprietary	

Test	Specification	Result
Appearance	Blue liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	10.003	0.02	186-I-g, 186-II-g, 191d

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer C	ASTM (D 5464)
Buffer C	ASTM (D 5128)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. 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)
1601-16	500 mL natural poly	18 months
1601-5	20 L Cubitainer®	18 months

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



Paul Brandon (10/09/2023)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

This product was tested in an ISO 17025 Accredited Laboratory

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Certificate of Analysis

Sodium Thiosulfate, 0.0250 Normal (N/40)

Lot Number: 4403S13

Product Number: 7900

Manufacture Date: MAR 29, 2024

Expiration Date: SEP 2025

This product is specially formulated to increase its stability. A preservative is added to prevent bacterial contamination. However, all Sodium Thiosulfate solutions are subject to slow chemical deterioration and should be restandardized periodically.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Thiosulfate Pentahydrate	10102-17-7	ACS
Organic Preservative	Proprietary	
Sodium Carbonate	497-19-8	ACS

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Iodate/Starch)	0.02499-0.02501 N at 20°C	0.02501 N at 20°C	136

Specification	Reference
Standard Sodium Thiosulfate Solution, 0.0250 N	APHA (4500-S2- F)
Standard Sodium Thiosulfate Titrant	APHA (4500-O D)
Standard Sodium Thiosulfate Titrant	APHA (4500-O E)
Standard Sodium Thiosulfate Titrant	APHA (4500-O F)
Standard Sodium Thiosulfate Titrant, 0.025 N	APHA (4500-CI B)
Standard Sodium Thiosulfate Titrant	APHA (4500-O C)
Standard Sodium Thiosulfate Titrant, 0.025 M	APHA (5530 C)
Standard Sodium Thiosulfate Solution (0.025 N)	EPA (SW-846) (9031)
Standard Sodium Thiosulfate solution (0.025 N)	EPA (SW-846) (9034)

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)
7900-1	4 L natural poly	18 months
7900-16	500 mL natural poly	18 months
7900-1CT	4 L Cubitainer®	18 months
7900-32	1 L natural poly	18 months

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



Paul Brandon (03/29/2024)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

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Certificate of Analysis

Buffer, Reference Standard, pH 4.00 ± 0.01 at 25°C (Color Coded Red)

Lot Number: 4403F90

Product Number: 1501

Manufacture Date: MAR 09, 2024

Expiration Date: FEB 2026

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST Traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	0	5	10	15	20	25	30	35	40	45	50
pH	4.00	4.00	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.04	4.06

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Acid Phthalate	877-24-7	Buffer
Preservative	Proprietary	Commercial
Red Dye	Proprietary	Purified

Test	Specification	Result
Appearance	Red liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	4.000	0.02	185i, 186-I-g, 186-II-g

Specification	Reference
Commercial Buffer Solutions	ASTM (D 1293 B)
Buffer B	ASTM (D 5464)
Buffer B	ASTM (D 5128)

pH measurements were performed in our Batesville, IN laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.02) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. 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)
1501-2.5	10 L Cubitainer®	24 months
1501-32	1 L natural poly	24 months
1501-5	20 L Cubitainer®	24 months

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

Paul Brandon

Production Manager

This product was tested in an ISO 17025 Accredited Laboratory

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

Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

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

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

Certificate of Analysis

Iodine (Iodine-Iodide), 0.0250 Normal (N/40), 1 mL = 0.4008 mg S²⁻

Lot Number: 2405D89

Product Number: 3975

Manufacture Date: MAY 10, 2024

Expiration Date: MAY 2025

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Iodide	7681-11-0	ACS
Iodine	7553-56-2	ACS

Test	Specification	Result	NIST SRM#
Appearance	Dark brown liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	0.02498-0.02502 N at 20°C	0.02502 N at 20°C	136

Specification	Reference
Standard Iodine Solution, 0.0250 N	APHA (4500-S2- F)
Iodine Solution (approximately 0.025 N)	EPA (SW-846) (9031)
Standard Iodine Solution, 0.0250 N	EPA (376.1)
Iodine Solution (approximately 0.025 N)	EPA (SW-846) (9034)

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)
3975-1	4 L amber glass	12 months
3975-16	500 mL amber glass	12 months
3975-32	1 L amber glass	12 months

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



Jose Pena (05/10/2024)
Operations Manager

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

Certificate of Analysis

Cyanide Standard 1000 ppm (1ml = 1mg CN)

Product Code: **LC13545**

Manufacture Date: August 01, 2024

Lot Number: **44080060**

Expiration Date: January 30, 2025

Test	Specification	Result
Appearance (clarity)	clear solution	clear solution
Appearance (color)	colorless	colorless
Concentration (CN)	0.990 - 1.010mg/mL	1.008mg/mL
Concentration (CN)	990 - 1,010ppm	1,008ppm
Traceable to NIST SRM	Report	999b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST standards.

The suffix of the product code may differ from what is on your product label. The suffix will designate the size and be associated with a numeric digit(s). Visit LabChem.com for more information

Suffix	1	2	3/3S/36/36S	4/4C	5	6	7	8	9	20	44	200	246	486
Size	500mL or g	1L or 1kg	2.5L/2.5L Coated/6x2.5L/6x2.5L Coated	4L	20L	10L	125mL	25g	100g	20x20mL	4x4L	200L	24x6mL	48x6mL



Michael Monteleone
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

W3139 Received on 9/9/24 by IZ

Product No.: A12044
Product: Chloramine-T trihydrate, 98%
Lot No.: 10239484

Appearance:	White powder
Melting Point:	166°C(dec)
Assay (Iodometric titration):	100.5%
Identification (FTIR):	Conforms

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Certificate of Analysis

Starch Indicator, 0.5% (w/v), Mercury Free, for Iodometric Titrations

Lot Number: 4408P62

Product Number: 8000

Manufacture Date: AUG 28, 2024

Expiration Date: AUG 2026

This product is Mercury-free.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Starch, soluble	9005-84-9	ACS
Salicylic Acid	69-72-7	ACS

Test	Specification	Result
Appearance	White translucent liquid	Passed
Suitability for Use	Colorless (Iodine absent) - Blue (Iodine present)	Passed

Specification	Reference
Starch Solution	APHA (4500-S2- F)
Starch Indicator Solution	APHA (4500-CI B)
Starch Indicator	APHA (4500-SO32- B)
Starch indicator solution	APHA (2350 B)
Starch indicator solution	APHA (2350 E)
Starch Solution	APHA (510 B)
Starch Solution	APHA (5530 C)
Starch Indicator	APHA (4500-CI C)
Starch Indicator	EPA (345.1)

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)
8000-1	4 L natural poly	24 months
8000-16	500 mL natural poly	24 months
8000-32	1 L natural poly	24 months

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



Certificate of Analysis

Cyanide Standard, 1000 ppm CN⁻

Lot Number: 1411J58**Product Number:** 2543**Manufacture Date:** NOV 22, 2024**Expiration Date:** MAY 2025

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certified traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.

Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard. Restandardize weekly if extreme accuracy is required.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Cyanide	151-50-8	ACS
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN ⁻)	995-1005 ppm	1000 ppm

Specification	Reference
Stock Standard Cyanide Solution	APHA (4500-CN- F)
Stock Cyanide Solution	APHA (4500-CN- E)
Stock Cyanide Solution	APHA (4500-CN- K)
Stock Cyanide Solution	APHA (4500-CN- H)
Cyanide Reference Solution (1000 mg/L)	EPA (SW-846) (7.3.3.2)
Cyanide Calibration Stock Solution (1,000 mg/L CN ⁻)	EPA (SW-846) (9213)
Stock Cyanide Solution	EPA (335.3)
Stock Cyanide Solution	EPA (335.2)
Cyanide Solution Stock	ASTM (D 4282)
Simple Cyanide Solution, Stock (1.0 g/L CN ⁻)	ASTM (D 4374)

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)
2543-16	500 mL amber poly	6 months
2543-32	1 L amber poly	6 months
2543-4	120 mL amber poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)



Certificate of Analysis

Buffer, Reference Standard, pH 2.00 ± 0.01 at 25°C**Lot Number:** 2411E26**Product Number:** 1493**Manufacture Date:** NOV 11, 2024**Expiration Date:** OCT 2026

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The NIST traceable pH value is certified to ±0.01 at 25 °C only. All other pH values at their corresponding temperatures are accurate to ± 0.05.

°C	10	15	20	25	30	35	40	45	50
pH	1.93	1.98	1.98	2.00	2.01	2.03	2.03	2.04	2.04

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Chloride	7447-40-7	ACS
Hydrochloric Acid	7647-01-0	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed

*Not a certified value.

Test	Certified Value	Uncertainty	NIST SRM#
pH at 25°C (Method: SQCP027, SQCP033)	1.994	0.02	185i, 186-I-g, 186-II-g

pH measurements were performed in our Pocomoke City, MD laboratory under ISO/IEC 17025 accreditation (ANAB Certificate L2387.01) and are certified traceable to National Institute of Standards and Technology (NIST) Standard Reference Material as indicated above via an unbroken chain of comparisons. The uncertainty is calculated from the uncertainty of the measurement variation from sample to sample, the uncertainty in the NIST Standard Reference Material, and the uncertainty of the measurement process. The uncertainty is multiplied by k=2, corresponding to 95% coverage in a normal distribution. 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)
1493-1	4 L natural poly	24 months
1493-16	500 mL natural poly	24 months
1493-1CT	4 L Cubitainer®	24 months
1493-2.5	10 L Cubitainer®	24 months
1493-32	1 L natural poly	24 months

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



Jose Pena (11/11/2024)
Operations Manager

This product was tested in an ISO 17025 Accredited Laboratory

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

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 2/3/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:35
In Date: 01/31/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:40
Out Date: 02/01/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB134497

Lab ID	Client SampleID	Dish #	Dish Wt (g) (A)	Sample Wt (g)	Dish + Sample Wt (g) (B)	Dish+Dry Sample Wt (g) (C)	% Solid	Comments
Q1236-01	WASTE	17	1.14	8.55	9.69	8.12	81.6	
Q1236-02	VOC	18	1.13	8.71	9.84	8.3	82.3	
Q1236-03	1	19	1.17	8.50	9.67	8.2	82.7	
Q1236-04	2	20	1.17	8.60	9.77	8.2	81.7	
Q1236-05	3	21	1.15	8.84	9.99	8.35	81.4	
Q1236-06	4	22	1.16	8.53	9.69	8.24	83.0	
Q1236-07	5	23	1.15	8.82	9.97	8.48	83.1	
Q1241-01	JPP-3.5-013025	1	1.15	8.58	9.73	8.41	84.6	
Q1241-03	JPP-3.5-013025	2	1.12	8.76	9.88	8.3	82.0	
Q1241-05	JPP-5.3-013025	3	1.15	8.43	9.58	8.68	89.3	
Q1241-07	JPP-5.3-013025	4	1.11	8.77	9.88	8.81	87.8	
Q1241-09	JPP-5.2-013025	5	1.15	8.59	9.74	8.65	87.3	
Q1241-11	JPP-5.2-013025	6	1.12	8.41	9.53	8.58	88.7	
Q1241-13	JPP-5.4-013025	7	1.16	8.66	9.82	8.69	87.0	
Q1241-15	JPP-5.4-013025	8	1.18	8.45	9.63	8.5	86.6	
Q1241-17	JPP-51.4-013025	9	1.14	8.55	9.69	9.12	93.3	
Q1241-19	JPP-51.4-013025	10	1.16	8.51	9.67	9.09	93.2	
Q1242-01	JPP-6.2-013025	11	1.15	8.80	9.95	8.32	81.5	
Q1242-03	JPP-6.2-013025	12	1.13	8.60	9.73	8.11	81.2	
Q1243-01	CL-01-01302025	13	1.16	8.40	9.56	9.12	94.8	
Q1243-02	CL-01-01302025-E2	14	1.13	8.70	9.83	9.36	94.6	
Q1244-01	EO-02-01302025	15	1.18	8.71	9.89	9.36	93.9	
Q1244-02	EO-02-01302025-E2	16	1.12	8.80	9.92	9.42	94.3	
Q1254-01	OK-02-01312025	24	1.16	8.40	9.56	8.48	87.1	
Q1254-02	OK-02-01312025-E2	25	1.15	8.83	9.98	9.6	95.7	
Q1257-01	013025	42	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1258-01	112224A	43	1.00	1.00	2.00	2.00	100.0	debris
Q1259-01	12825	44	1.14	8.70	9.84	8.7	86.9	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 2/3/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:35
In Date: 01/31/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:40
Out Date: 02/01/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB134497

Lab ID	Client SampleID	Dish #	Dish Wt (g) (A)	Sample Wt (g)	Dish + Sample Wt (g) (B)	Dish+Dry Sample Wt (g) (C)	% Solid	Comments
Q1260-01	12925-A	45	1.00	1.00	2.00	2.00	100.0	debris
Q1260-02	12925-BC	46	1.16	8.42	9.58	9.2	95.5	
Q1261-01	CHRT-20430	47	1.14	8.43	9.57	5.86	56.0	
Q1261-02	CHRT-20430-E2	48	1.12	8.77	9.89	5.93	54.8	
Q1262-01	ETGI-371	49	1.15	8.70	9.85	8.64	86.1	
Q1262-02	ETGI-371-E2	50	1.16	8.82	9.98	8.78	86.4	
Q1262-03	CONCRETE-PAD	51	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1262-04	CONCRETE-PAD-E2	52	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1262-05	3762	53	1.00	1.00	2.00	2.00	100.0	debris
Q1263-01	KMA9027-1-1	54	1.00	1.00	2.00	2.00	100.0	oilc
Q1263-02	KMA9027-1-2	55	1.00	1.00	2.00	2.00	100.0	oilc
Q1263-03	BC274653-1-1	56	1.00	1.00	2.00	2.00	100.0	oilc
Q1263-04	BC274653-1-2	57	1.00	1.00	2.00	2.00	100.0	oilc
Q1264-01	AUD-1606	26	1.18	8.62	9.8	9.63	98.0	
Q1264-02	AUD-25-0008	27	1.11	8.71	9.82	7.77	76.5	
Q1265-01	AUD-25-0006	28	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1267-01	TRE-25-0003	29	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1267-02	TRE-25-0009	30	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1267-03	TRE-25-0011	31	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1268-05	SVOC-GPC-BLANK	32	1.00	1.00	2.00	2.00	100.0	
Q1268-06	PEST-GPC-BLANK	33	1.00	1.00	2.00	2.00	100.0	
Q1268-07	PEST-GPC-BLANK-SPIKE	34	1.00	1.00	2.00	2.00	100.0	
Q1268-08	PCB-GPC-BLANK	35	1.00	1.00	2.00	2.00	100.0	
Q1268-09	PCB-GPC-BLANK-SPIKE	36	1.00	1.00	2.00	2.00	100.0	
Q1268-10	SVOC-GPC2-BLANK	37	1.00	1.00	2.00	2.00	100.0	
Q1268-11	PEST-GPC2-BLANK	38	1.00	1.00	2.00	2.00	100.0	
Q1268-12	PEST-GPC2-BLANK-SPIKE	39	1.00	1.00	2.00	2.00	100.0	
Q1268-13	PCB-GPC2-BLANK	40	1.00	1.00	2.00	2.00	100.0	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 2/3/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:35
In Date: 01/31/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:40
Out Date: 02/01/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB134497

Lab ID	Client SampleID	Dish #	Dish Wt (g) (A)	Sample Wt (g)	Dish + Sample Wt (g) (B)	Dish+Dry Sample Wt (g) (C)	% Solid	Comments
Q1268-14	PCB-GPC2-BLANK-SPIKE	41	1.00	1.00	2.00	2.00	100.0	
Q1269-01	VNJ-231	58	1.17	8.81	9.98	9.00	88.9	
Q1269-02	VNJ-231-E2	59	1.12	8.86	9.98	9.1	90.1	
Q1270-01	BC247799-1-1	60	1.00	1.00	2.00	2.00	100.0	oilc
Q1270-02	BC247799-1-2	61	1.00	1.00	2.00	2.00	100.0	oilc
Q1270-03	BC274768-1-1	62	1.00	1.00	2.00	2.00	100.0	oilc
Q1270-04	BC274768-1-2	63	1.00	1.00	2.00	2.00	100.0	oilc
Q1270-05	BC274768-2-1	64	1.00	1.00	2.00	2.00	100.0	oilc
Q1270-06	BC274768-2-2	65	1.00	1.00	2.00	2.00	100.0	oilc
Q1271-01	RBR200030	66	1.12	8.74	9.86	8.87	88.7	
Q1271-02	RBR200030-E2	67	1.17	8.53	9.7	9.02	92.0	
Q1271-03	3189-3196	68	1.00	1.00	2.00	2.00	100.0	oil sample

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

WORKLIST(Hardcopy Internal Chain)

S134497

WorkList Name : %1-013125

WorkList ID : 187328

Department : Wet-Chemistry

Date : 01-31-2025 07:56:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1236-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-02	VOC	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-03	1	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-04	2	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-05	3	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-06	4	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1236-07	5	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1241-01	JPP-3.5-013025	Solid	Percent Solids	Cool 4 deg C	SCIA01	E11	01/30/2025	Chemtech -SO
Q1241-03	JPP-3.5-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-05	JPP-5.3-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-07	JPP-5.3-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-09	JPP-5.2-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-11	JPP-5.2-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-13	JPP-5.4-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-15	JPP-5.4-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-17	JPP-5.1.4-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1241-19	JPP-5.1.4-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1242-01	JPP-6.2-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1242-03	JPP-6.2-013025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1243-01	CL-01-01302025	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/30/2025	Chemtech -SO
Q1243-02	CL-01-01302025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	01/30/2025	Chemtech -SO

Date/Time

01/31/25 16:10

Raw Sample Received by:

JO GDC

Raw Sample Relinquished by:

RS C E A T - 1 A B W

Date/Time

01/31/25

Raw Sample Received by:

RS C E A T - 1 A B W

Raw Sample Relinquished by:

JO GDC

WORKLIST(Hardcopy Internal Chain)

B13497

WorkList Name : %1-013125

WorkList ID : 187328

Department : Wet-Chemistry

Date : 01-31-2025 07:56:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1244-01	EO-02-01302025	Solid	Percent Solids	Cool 4 deg C	PSEG05	N51	01/30/2025	Chemtech -SO
Q1244-02	EO-02-01302025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N51	01/30/2025	Chemtech -SO
Q1254-01	OK-02-01312025	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	01/31/2025	Chemtech -SO
Q1254-02	OK-02-01312025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	01/31/2025	Chemtech -SO
Q1257-01	013025	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1258-01	112224A	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1259-01	12825	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1260-01	12925-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1260-02	12925-BC	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO
Q1261-01	CHRT-20430	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO
Q1261-02	CHRT-20430-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO
Q1262-01	ETGI-371	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-02	ETGI-371-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-03	CONCRETE-PAD	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-04	CONCRETE-PAD-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1262-05	3762	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1263-01	KMA9027-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N11	01/31/2025	Chemtech -SO
Q1263-02	KMA9027-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N11	01/31/2025	Chemtech -SO
Q1263-03	BC274653-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N11	01/31/2025	Chemtech -SO
Q1263-04	BC274653-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N11	01/31/2025	Chemtech -SO
Q1264-01	AUD-1606	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO

Date/Time 01/31/25 16:10
 Raw Sample Received by: SA wdcj
 Raw Sample Relinquished by: RJ c.EXT-1061

Date/Time 01/31/25

Raw Sample Received by:

Raw Sample Relinquished by:

WORKLIST(Hardcopy Internal Chain)

B134497

WorkList Name : %1-013125

WorkList ID : 187328

Department : Wet-Chemistry

Date : 01-31-2025 07:56:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1264-02	AUD-25-0008	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/31/2025	Chemtech -SO
Q1265-01	AUD-25-0006	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1267-01	TRE-25-0003	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1267-02	TRE-25-0009	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1267-03	TRE-25-0011	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/31/2025	Chemtech -SO
Q1268-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1268-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D11	01/31/2025	Chemtech -SO
Q1269-01	VNJ-231	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	01/31/2025	Chemtech -SO
Q1269-02	VNJ-231-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D11	01/31/2025	Chemtech -SO
Q1270-01	BC247799-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1270-02	BC247799-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1270-03	BC247468-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1270-04	BC247468-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO

Date/Time 01/31/25 16:10
Raw Sample Received by: SA WOC
Raw Sample Relinquished by: RS CEST-Web

Date/Time 01/31/25

Raw Sample Received by: RS CEST-Web

Raw Sample Relinquished by: SA WOC

WORKLIST(Hardcopy Internal Chain)

123497

WorkList Name : %1-013125

WorkList ID : 187328

Department : Wet-Chemistry

Date : 01-31-2025 07:56:55

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1270-05	BC274768-2-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1270-06	BC274768-2-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	01/31/2025	Chemtech -SO
Q1271-01	RBR200030	Solid	Percent Solids	Cool 4 deg C	PSEG03	D21	01/31/2025	Chemtech -SO
Q1271-02	RBR200030-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D21	01/31/2025	Chemtech -SO
Q1271-03	3189-3196	Solid	Percent Solids	Cool 4 deg C	PSEG03	D21	01/31/2025	Chemtech -SO

Date/Time 01/31/25 16:10
 Raw Sample Received by: J8 WPC
 Raw Sample Relinquished by: RJ C-54-1ab

Date/Time 01/31/25 17:50
 Raw Sample Received by: RJ C-54-1ab
 Raw Sample Relinquished by: J8 WPC



SHIPPING DOCUMENTS

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CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. **Q1241**
QUOTE NO.
COC Number **2041692**

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: RU2 Engineering LLC
ADDRESS: 2 Melinda Drive
CITY: Monroe Twp, NJ 08831
ATTENTION: Rutu Manani
PHONE: 609-409-4564 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: SANDSWOBR BMCR Project
PROJECT NO.: LOCATION: Brooklyn, NYC
PROJECT MANAGER: Rutu Manani
e-mail: Rmanani@Ru2eng.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Same as company address
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard 10 days DAYS*
HARDCOPY (DATA PACKAGE): Standard 10 days DAYS*
EDD: Standard 10 days DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

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

1. TCL VOCs
2. TCL VOCs
3. TPH VOCs
4. TCL VOCs - DRO
5. TCL VOCs + TLCS
6. XAL Metals
7. Pesticides PCBs
8. RCRA characteritics
9. Paint filter
full TCLP

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	← Specify Preservatives A-HCl D-NaOH B-HNO3 C-H2SO4 E-TC F-OTHER	
1.	JPP-3.5-013025	Soil		G	1/30/25	8:11	3	X	X	X	X							
2.	JPP-3.5-013025	Soil	L		1/30/25	8:20	8			X	X	X	X	X	X	X		
3.	JPP-5.3-013025	Soil		G	1/30/25	8:52	3	X	X	X								
4.	JPP-5.3-013025	Soil	L		1/30/25	9:00	8			X	X	X	X	X	X	X		
5.	JPP-5.2-013025	Soil		G	1/30/25	9:46	3	X	X	X								
6.	JPP-5.2-013025	Soil	L		1/30/25	9:54	8			X	X	X	X	X	X	X		
7.	JPP-5.4-013025	Soil		G	1/30/25	10:43	3	X	X	X								
8.	JPP-5.4-013025	Soil	L		1/30/25	10:51	8			X	X	X	X	X	X	X		
9.	JPP-5.4-013025	Soil		G	1/30/25	11:48	3	X	X	X								
10.	JPP-5.4-013025	Soil	L		1/30/25	11:56	8			X	X	X	X	X	X	X		

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

RELINQUISHED BY SAMPLER: 1. RA	DATE/TIME: 1/30/25	RECEIVED BY: 1. [Signature]	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 4.1 °C
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY: 2.	Comments: Preserve extra sample jar if additional analysis is required.
RELINQUISHED BY SAMPLER: 3.	DATE/TIME:	RECEIVED BY: 3.	Page 1 of 2

CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☐ Picked Up ☐ Field Sampling
Shipment Complete
☐ YES ☐ NO

Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1241	RUTW01	Order Date : 1/30/2025 2:58:00 PM	Project Mgr :
Client Name : RU2 Engineering, LLC		Project Name : NYCDDC SANTWOBR B	Report Type : NYS ASP B
Client Contact : Rutu Manani		Receive DateTime : 1/30/2025 2:53:00 PM	EDD Type : Excel NY
Invoice Name : RU2 Engineering, LLC		Purchase Order :	Hard Copy Date :
Invoice Contact : Rutu Manani			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1241-01	JPP-3.5-013025	Solid	01/30/2025	08:11					
					VOCMS Group1		8260D	10 Bus. Days	
Q1241-05	JPP-5.3-013025	Solid	01/30/2025	08:52					
					VOCMS Group1		8260D	10 Bus. Days	
Q1241-09	JPP-5.2-013025	Solid	01/30/2025	09:46					
					VOCMS Group1		8260D	10 Bus. Days	
Q1241-13	JPP-5.4-013025	Solid	01/30/2025	10:43					
					VOCMS Group1		8260D	10 Bus. Days	
Q1241-17	JPP-51.4-013025	Solid	01/30/2025	11:48					
					VOCMS Group1		8260D	10 Bus. Days	

Relinquished By : cl

Date / Time : 1-30-25 1550

Received By : JC

Date / Time : 1/30/25 1350

Storage Area : VOA Refridgerator Room

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1241 RUTW01

Order Date : 1/30/2025 2:58:00 PM

Project Mgr :

Client Name : RU2 Engineering, LLC

Project Name : NYCDDC SANTWOBR B1

Report Type : NYS ASP B

Client Contact : Rutu Manani

Receive DateTime : 1/30/2025 2:53:00 PM

EDD Type : Excel NY

Invoice Name : RU2 Engineering, LLC

Purchase Order :

Hard Copy Date :

Invoice Contact : Rutu Manani

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1241-01	JPP-3.5-013025	Solid	01/30/2025	08:11					
					Gasoline Range Organics		8015D	10 Bus. Days	
Q1241-05	JPP-5.3-013025	Solid	01/30/2025	08:52					
					Gasoline Range Organics		8015D	10 Bus. Days	
Q1241-09	JPP-5.2-013025	Solid	01/30/2025	09:46					
					Gasoline Range Organics		8015D	10 Bus. Days	
Q1241-13	JPP-5.4-013025	Solid	01/30/2025	10:43					
					Gasoline Range Organics		8015D	10 Bus. Days	
Q1241-17	JPP-51.4-013025	Solid	01/30/2025	11:48					
					Gasoline Range Organics		8015D	10 Bus. Days	

Relinquished By : cl

Date / Time : 1-30-25 1550

Received By : JC

Date / Time : 1/30/25 1550

Storage Area : VOA Refridgerator Room