

## Cover Page

**Order ID :** P5141

**Project ID :** Rotor Clip - PO# 5183.0001

**Client :** VERINA CONSULTING GROUP, LLC

### Lab Sample Number

P5141-01  
P5141-02  
P5141-03  
P5141-04

### Client Sample Number

WATER TREATMENT DISCHARGE  
WATER TREATMENT DISCHARGE  
P5141-02MS  
P5141-02MSD

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

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

Date: 12/13/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## DATA REPORTING QUALIFIERS- INORGANIC

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

<b>J</b>	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
<b>U</b>	Indicates the analyte was analyzed for, but not detected.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>E</b>	Indicates the reported value is estimated because of the presence of interference
<b>M</b>	Indicates Duplicate injection precision not met.
<b>N</b>	Indicates the spiked sample recovery is not within control limits.
<b>S</b>	Indicates the reported value was determined by the Method of Standard Addition (MSA).
<b>*</b>	Indicates that the duplicate analysis is not within control limits.
<b>+</b>	Indicates the correlation coefficient for the MSA is less than 0.995.
<b>D</b>	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
<b>M</b>	Method qualifiers “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
<b>OR</b>	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements
<b>H</b>	Sample Analysis Out Of Hold Time

## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: P5141

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 Custody

✓

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: KETAN PATEL

Date: 12/13/2024

## LAB CHRONICLE

<b>OrderID:</b>	P5141	<b>OrderDate:</b>	12/5/2024 12:27:00 PM
<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>Project:</b>	Rotor Clip - PO# 5183.0001
<b>Contact:</b>	Michael Valenzi	<b>Location:</b>	M11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>P5141-01</b>	<b>WATER TREATMENT DISCHARGE</b>	<b>WATER</b>			<b>12/05/24 10:40</b>			<b>12/05/24</b>
			Ammonia	SM4500-NH3		12/09/24	12/09/24 14:17	
			BOD5	SM5210 B			12/05/24 17:40	
			COD	SM5220 D			12/09/24 14:22	
			Residual Chlorine	SM4500 Cl G			12/05/24 16:21	
			TSS	SM2540 D			12/09/24 11:00	
<b>P5141-02</b>	<b>WATER TREATMENT DISCHARGE</b>	<b>WATER</b>			<b>12/05/24 10:43</b>			<b>12/05/24</b>
			Cyanide	9012B		12/07/24	12/09/24 12:54	
			Oil and Grease	1664A			12/06/24 10:30	





# SAMPLE DATA

## Report of Analysis

Client:	VERINA CONSULTING GROUP, LLC	Date Collected:	12/05/24 10:40
Project:	Rotor Clip - PO# 5183.0001	Date Received:	12/05/24
Client Sample ID:	WATER TREATMENT DISCHARGE	SDG No.:	P5141
Lab Sample ID:	P5141-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	0.70		1	0.045	0.10	mg/L	12/09/24 08:50	12/09/24 14:17	SM 4500-NH3 B plus G-11
BOD5	31.0		1	0.17	2.00	mg/L		12/05/24 17:40	SM 5210 B-16
COD	139		1	2.35	10.0	mg/L		12/09/24 14:22	SM 5220 D-11
Residual Chlorine	0.26	H	1	0.016	0.10	mg/L		12/05/24 16:21	SM 4500-Cl G-11
TSS	8.00		1	1.00	4.00	mg/L		12/09/24 11:00	SM 2540 D-15

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:	VERINA CONSULTING GROUP, LLC	Date Collected:	12/05/24 10:43
Project:	Rotor Clip - PO# 5183.0001	Date Received:	12/05/24
Client Sample ID:	WATER TREATMENT DISCHARGE	SDG No.:	P5141
Lab Sample ID:	P5141-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.0024	J	1	0.00099	0.0050	mg/L	12/07/24 10:00	12/09/24 12:54	9012B
Oil and Grease	1.10	J	1	0.40	5.00	mg/L		12/06/24 10:30	1664A

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

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

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

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

OR = Over Range

N =Spiked sample recovery not within control limits



# QC RESULT SUMMARY



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

### Initial and Continuing Calibration Verification

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**RunNo.:** LB133768

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV</b> Residual Chlorine	mg/L	0.414	0.4	104	90-110	12/05/2024
Sample ID: <b>CCV1</b> Residual Chlorine	mg/L	0.404	0.4	101	90-110	12/05/2024
Sample ID: <b>CCV2</b> Residual Chlorine	mg/L	0.404	0.4	101	90-110	12/05/2024

## Initial and Continuing Calibration Verification

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**RunNo.:** LB133837

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV</b> COD	mg/L	51.341	50	103	95-105	10/14/2024
Sample ID: <b>CCV1</b> COD	mg/L	51.341	50	103	95-105	12/09/2024
Sample ID: <b>CCV2</b> COD	mg/L	50.336	50	101	95-105	12/09/2024
Sample ID: <b>CCV3</b> COD	mg/L	51.341	50	103	95-105	12/09/2024

## Initial and Continuing Calibration Verification

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**RunNo.:** LB133842

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: <b>ICV1</b> Ammonia as N	mg/L	1	1	100	90-110	12/09/2024
Sample ID: <b>CCV1</b> Ammonia as N	mg/L	1.1	1	110	90-110	12/09/2024
Sample ID: <b>CCV2</b> Ammonia as N	mg/L	1	1	100	90-110	12/09/2024
Sample ID: <b>CCV3</b> Ammonia as N	mg/L	1	1	100	90-110	12/09/2024
Sample ID: <b>CCV4</b> Ammonia as N	mg/L	1	1	100	90-110	12/09/2024

## Initial and Continuing Calibration Verification

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**RunNo.:** LB133847

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV1						
Cyanide		mg/L	0.1	0.099	101	90-110	12/09/2024
Sample ID:	CCV1						
Cyanide		mg/L	0.26	0.25	104	90-110	12/09/2024
Sample ID:	CCV2						
Cyanide		mg/L	0.25	0.25	100	90-110	12/09/2024
Sample ID:	CCV3						
Cyanide		mg/L	0.27	0.25	108	90-110	12/09/2024





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

### Initial and Continuing Calibration Blank Summary

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**RunNo.:** LB133768

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>ICB</b> Residual Chlorine	mg/L	< 0.0500	0.0500	U	0.016	0.1	12/05/2024
Sample ID: <b>CCB1</b> Residual Chlorine	mg/L	< 0.0500	0.0500	U	0.016	0.1	12/05/2024
Sample ID: <b>CCB2</b> Residual Chlorine	mg/L	< 0.0500	0.0500	U	0.016	0.1	12/05/2024

### Initial and Continuing Calibration Blank Summary

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**RunNo.:** LB133837

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>ICB</b> COD	mg/L	< 5.0000	5.0000	U	2.35	10	10/14/2024
Sample ID: <b>CCB1</b> COD	mg/L	< 5.0000	5.0000	U	2.35	10	12/09/2024
Sample ID: <b>CCB2</b> COD	mg/L	< 5.0000	5.0000	U	2.35	10	12/09/2024
Sample ID: <b>CCB3</b> COD	mg/L	< 5.0000	5.0000	U	2.35	10	12/09/2024

### Initial and Continuing Calibration Blank Summary

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**RunNo.:** LB133842

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>ICB1</b> Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	12/09/2024
Sample ID: <b>CCB1</b> Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	12/09/2024
Sample ID: <b>CCB2</b> Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	12/09/2024
Sample ID: <b>CCB3</b> Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	12/09/2024
Sample ID: <b>CCB4</b> Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	12/09/2024

### Initial and Continuing Calibration Blank Summary

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**RunNo.:** LB133847

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>ICB1</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/09/2024
Sample ID: <b>CCB1</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/09/2024
Sample ID: <b>CCB2</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/09/2024
Sample ID: <b>CCB3</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/09/2024

## Preparation Blank Summary

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: <b>LB133768BL</b> Residual Chlorine	mg/L	< 0.0500	0.0500	U	0.016	0.1	12/05/2024
Sample ID: <b>LB133770BL</b> BOD5	mg/L	< 0.2000	0.2000	U	0.17	2.0	12/05/2024
Sample ID: <b>LB133785BL</b> Oil and Grease	mg/L	< 2.5000	2.5000	U	0.4	5.0	12/06/2024
Sample ID: <b>LB133837BL</b> COD	mg/L	< 5.0000	5.0000	U	2.35	10.0	12/09/2024
Sample ID: <b>LB133838BL</b> TSS	mg/L	< 2.0000	2.0000	U	1	4	12/09/2024
Sample ID: <b>PB165461BL</b> Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	12/09/2024
Sample ID: <b>PB165498BL</b> Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	12/09/2024

## Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5093-02
<b>Client ID:</b>	LL-001-FB-12-4-24MS	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/L	75-125	0.038		0.00099	U	0.04	1	95		12/09/2024

## Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5093-02
<b>Client ID:</b>	LL-001-FB-12-4-24MSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/L	75-125	0.038		0.00099	U	0.04	1	95		12/09/2024

## Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5139-01
<b>Client ID:</b>	001-WILLETS-PT-BLVD(DEC)MS	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	2.80	OR	1.80		1	1	100		12/09/2024



### Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5139-01
<b>Client ID:</b>	001-WILLETS-PT-BLVD(DEC)MSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	2.90	OR	1.80		1	1	110		12/09/2024

### Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5141-01
<b>Client ID:</b>	WATER TREATMENT DISCHARGEMS	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Residual Chlorine	mg/L	71-148	0.68		0.26		0.4	1	103		12/05/2024

### Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5141-01
<b>Client ID:</b>	WATER TREATMENT DISCHARGEMSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Residual Chlorine	mg/L	71-148	0.67		0.26		0.4	1	101		12/05/2024

## Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5141-02
<b>Client ID:</b>	WATER TREATMENT DISCHARGEMS	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	21.3		1.10	J	20.0	1	101		12/06/2024

## Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5141-02
<b>Client ID:</b>	WATER TREATMENT DISCHARGEMSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	21.7		1.10	J	20.0	1	103		12/06/2024

### Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5143-01
<b>Client ID:</b>	DSN002MS	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
COD	mg/L	75-125	118		71.5		50.0	1	93		12/09/2024

### Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5143-01
<b>Client ID:</b>	DSN002MSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
COD	mg/L	75-125	116		71.5		50.0	1	89		12/09/2024

### Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5146-01
<b>Client ID:</b>	EFFLUENTMS	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	46.6		26.3		20.0	1	102		12/06/2024



### Matrix Spike Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5146-01
<b>Client ID:</b>	EFFLUENTMSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	45.9		26.3		20.0	1	98		12/06/2024

### Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5068-01
<b>Client ID:</b>	14B-1DUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TSS	mg/L	+/-5	4500		4530		1	0.66		12/09/2024

## Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5074-02
<b>Client ID:</b>	COMPDUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
BOD5	mg/L	+/-20	1250		1210		1	3.02		12/05/2024

## Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5093-02
<b>Client ID:</b>	LL-001-FB-12-4-24DUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/L	+/-20	0.00099	U	0.00099	U	1	0		12/09/2024

### Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5093-02
<b>Client ID:</b>	LL-001-FB-12-4-24MSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/L	+/-20	0.038		0.038		1	0		12/09/2024

## Duplicate Sample Summary

<b>Client:</b> VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b> P5141
<b>Project:</b> Rotor Clip - PO# 5183.0001	<b>Sample ID:</b> P5139-01
<b>Client ID:</b> 001-WILLETS-PT-BLVD(DEC)DUP	<b>Percent Solids for Spike Sample:</b> 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	1.80		1.80		1	0		12/09/2024

### Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5139-01
<b>Client ID:</b>	001-WILLETS-PT-BLVD(DEC)MSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	2.80	OR	2.90	OR	1	4		12/09/2024

### Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5141-01
<b>Client ID:</b>	WATER TREATMENT DISCHARGEDUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Residual Chlorine	mg/L	+/-20	0.26		0.24		1	7.91		12/05/2024



## Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5141-01
<b>Client ID:</b>	WATER TREATMENT DISCHARGEMSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Residual Chlorine	mg/L	+/-20	0.68		0.67		1	1.49		12/05/2024

### Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5141-02
<b>Client ID:</b>	WATER TREATMENT DISCHARGEMSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Oil and Grease	mg/L	+/-18	21.3		21.7		1	1.86		12/06/2024

### Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5143-01
<b>Client ID:</b>	DSN002DUP	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
COD	mg/L	+/-20	71.5		72.5		1	1.39		12/09/2024

## Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5143-01
<b>Client ID:</b>	DSN002MSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
COD	mg/L	+/-20	118		116		1	1.71		12/09/2024

### Duplicate Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Sample ID:</b>	P5146-01
<b>Client ID:</b>	EFFLUENTMSD	<b>Percent Solids for Spike Sample:</b>	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Oil and Grease	mg/L	+/-18	46.6		45.9		1	1.51		12/06/2024

### Laboratory Control Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Run No.:</b>	LB133768

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133768BS							
Residual Chlorine	mg/L	0.4	0.41		104	1	90-110	12/05/2024

### Laboratory Control Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Run No.:</b>	LB133770

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133770BS							
BOD5	mg/L	198	212		107	1	84.6-115.4	12/05/2024

### Laboratory Control Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Run No.:</b>	LB133785

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133785BS							
Oil and Grease	mg/L	20.0	16.8		84	1	78-114	12/06/2024



### Laboratory Control Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Run No.:</b>	LB133837

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133837BS							
COD	mg/L	50	49.3		99	1	90-110	12/09/2024

### Laboratory Control Sample Summary

**Client:** VERINA CONSULTING GROUP, LLC

**SDG No.:** P5141

**Project:** Rotor Clip - PO# 5183.0001

**Run No.:** LB133838

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133838BS							
TSS	mg/L	550	530		96	1	90-110	12/09/2024

### Laboratory Control Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Run No.:</b>	LB133842

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB165461BS							
Ammonia as N	mg/L	1	1.00		100	1	90-110	12/09/2024

### Laboratory Control Sample Summary

<b>Client:</b>	VERINA CONSULTING GROUP, LLC	<b>SDG No.:</b>	P5141
<b>Project:</b>	Rotor Clip - PO# 5183.0001	<b>Run No.:</b>	LB133847

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB165498BS							
Cyanide	mg/L	0.1	0.10		100	1	85-115	12/09/2024



# RAW DATA

## Analytical Summary Report

Analysis Method: SM4500 Cl G

ANALYST: Niha

Parameter: Residual Chlorine

SUPERVISOR REVIEW BY: Iwona

Run Number: LB133768

Reagent/Standard	Lot/Log #
Residual chlorine ICV-LCS, 0.4PPM	WP110973
Chlorine Calibration std, 0.1ppm	WP110968
Chlorine Calibration std, 0.2ppm	WP110969
Chlorine Calibration std, 0.8ppm	WP110970
Chlorine Calibration std, 0.0ppm	WP110967
Chlorine Calibration std, 1.6ppm	WP110971
Residual Chlorine Calibration and CCV std, 0	WP110972
Total Chlorine Powder Pillows	W3147

Intercept: -0.0014

Slope: 0.9931

Regression: 0.999590

Seq	Lab ID	True Val (mg/l)	DF	Initial Reading	Final Reading	Difference	Result (mg/l)	%D	AnalDate	Anal Time
1	CAL1	0	1	0.000	0.000	0.000	0.00		12/05/2024	15:45
2	CAL2	0.1	1	0.000	0.100	0.100	0.10	2	12/05/2024	15:48
3	CAL3	0.2	1	0.000	0.200	0.200	0.20	1.5	12/05/2024	15:51
4	CAL4	0.4	1	0.000	0.410	0.410	0.41	3.5	12/05/2024	15:54
5	CAL5	0.8	1	0.000	0.760	0.760	0.77	-4.1	12/05/2024	15:57
6	CAL6	1.6	1	0.000	1.600	1.600	1.61	0.8	12/05/2024	16:00

## Analytical Summary Report

Analysis Method: SM4500 Cl G

ANALYST: Niha

Parameter: Residual Chlorine

SUPERVISOR REVIEW BY: Iwona

Run Number: LB133768

Seq	Lab ID	Initial Weight	Final Vol	True Value (mg/L)	DF	Initial Reading	Final Reading	Diff.	Result (mg/L)	Anal Date	Anal Time
1	ICV			0.4	1	0.0000	0.4100	0.4100	0.4140	12/05/2024	16:03
2	ICB				1	0.0000	0.0000	0.0000	0.0010	12/05/2024	16:06
3	CCV1			0.4	1	0.0000	0.4000	0.4000	0.4040	12/05/2024	16:09
4	CCB1				1	0.0000	0.0000	0.0000	0.0010	12/05/2024	16:12
5	LB133768BL	50	50		1	0.0000	0.0000	0.0000	0.0010	12/05/2024	16:15
6	LB133768BS	50	50	0.4	1	0.0000	0.4100	0.4100	0.4140	12/05/2024	16:18
7	P5141-01	50	50		1	0.0000	0.2600	0.2600	0.2630	12/05/2024	16:21
8	P5141-01DUP	50	50		1	0.0000	0.2400	0.2400	0.2430	12/05/2024	16:24
9	P5141-01MS	50	50	0.4	1	0.0000	0.6700	0.6700	0.6760	12/05/2024	16:27
10	P5141-01MSD	50	50	0.4	1	0.0000	0.6600	0.6600	0.6660	12/05/2024	16:30
11	CCV2			0.4	1	0.0000	0.4000	0.4000	0.4040	12/05/2024	16:33
12	CCB2				1	0.0000	0.0000	0.0000	0.0010	12/05/2024	16:36

WORKLIST(Hardcopy Internal Chain)

LB133768

WorkList Name : RESIDUAL CHLORINE-1

WorkList ID : 186013

Department : Wet-Chemistry

Date : 12-05-2024 13:03:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5141-01	WATER TREATMENT DISCHAF	Water	Residual Chlorine	Cool 4 deg C	VER101	M11	12/05/2024	SM4500 Cl G

Date/Time 12.05.2024, 15:40  
Raw Sample Received by: NF(wc)  
Raw Sample Relinquished by: JF(wc)

Date/Time 12.05.2024, 17:00  
Raw Sample Received by: JF(wc)  
Raw Sample Relinquished by: NF(wc)



# BOD5 LOG

ANALYST: rubin  
Inst Id :DO METER  
LB :LB133770

SUPERVISOR: Iwona

QC BATCH ID: LB133770

Analysis Date: 12/05/2024

BOD Water: WP110974

MANGANOUS SULFATE SOLUTION: W3103

Starch: W3149

Alkaline Iodide Azide: W3109

Sulfuric acid, 1N: WP110386

Sodium Thiosulfate, 0.025N: W3105

POLYSEED: WP110976

NaOH, 1N: WP108662

GGA: WP110975

IncubatorID: INCUBATOR #3

Chlorine Strips: W3155

GuageID: 0511062

pH Strips: W3140

Zero DO: WP110595

Lab SampleID	Client ID	Bottle No.	VOL. ML	Initial Reading (ML)	Final Reading (ML)	Difference	Average
WINKLER 1	WINKLER 1	1	300	0.0	9.8	9.8	9.8
WINKLER 2	WINKLER 2	2	300	9.4	19.2	9.8	9.8

Meter Calibration1: 9.30

Zero DO Reading1: 0.08 mg/L (<=0.2 Criteria)

Barometric Pressure1: 755 mmHg

DO Meter BOD fluid reading for winkler comparison: 9.83

## After Incubation

Meter Calibration2: 8.95

Zero DO Reading2: 0.14 mg/L (<=0.2 Criteria)

Barometric Pressure2: 765 mmHg

QC BATCH ID: LB133770

INCUBATOR TEMP IN(C): 19.9

INCUBATOR TEMP OUT(C): 20.0

TIME IN: 17:40

TIME OUT: 13:45

DATE IN: 12/05/2024

DATE OUT: 12/10/2024

Lab SampleID	Bottle No.	Check CL	Initial PH	Final PH	Temp °C	Sam Vol. (mL)	D.O.1 Initial	D.O.2 Final	Depletion	BOD Result (mg/L)	Avg Result (mg/L)	Comment
LB133770BL	1	No	6.65	N/A	20.40	300	9.82	9.80	0.02	0.02	0.02	
POLYSEED	1					10	9.74	7.40	2.34	0.47	0.58	
POLYSEED	2					15	9.72	5.12	4.6	0.61		
POLYSEED	3					20	9.65	3.01	6.64	0.66		
GGA	1					6	9.76	5.05	4.71	206.5	211.5	
GGA	2					6	9.72	4.89	4.83	212.5		
GGA	3					6	9.70	4.81	4.89	215.5		
P5074-02	1	No	5.29	6.92	20.20	0.5	9.79	7.17	2.62	1224	1245	pH Adjusted
P5074-02	2					1	9.74	4.65	5.09	1353		
P5074-02	3					2	9.69	1.39	8.3	1158		
P5074-02	4					3	9.58	0.56	-	0		
P5074-02DUP	1	No	5.29	6.92	20.20	0.5	9.79	7.28	2.51	1158	1208	pH Adjusted
P5074-02DUP	2					1	9.74	4.73	5.01	1329		
P5074-02DUP	3					2	9.67	1.51	8.16	1137		
P5074-02DUP	4					3	9.60	0.57	-	0		
P5139-01	1	No	6.22	6.79	20.00	5	9.64	4.36	5.28	282	175.5	pH Adjusted
P5139-01	2					20	9.35	4.17	5.18	69		
P5139-01	3					50	7.98	0.58	-	0		
P5139-01	4					150	4.28	0.46	-	0		
P5139-02	1	No	6.31	6.84	20.00	5	9.65	7.35	2.3	103.2	92.85	pH Adjusted
P5139-02	2					20	9.34	3.26	6.08	82.5		
P5139-02	3					50	8.42	0.57	-	0		
P5139-02	4					150	4.56	0.45	-	0		
P5141-01	1	No	9.61	7.19	20.00	5	9.79	8.84	-	0	30.98	pH Adjusted
P5141-01	2					20	9.76	7.45	2.31	25.95		
P5141-01	3					50	9.70	3.12	6.58	36		
P5141-01	4					150	9.65	0.55	-	0		
P5143-01	1	No	7.11	N/A	20.00	5	9.63	9.00	-	0		
P5143-01	2					20	9.58	8.60	-	0		
P5143-01	3					50	9.52	8.20	-	0		
P5143-01	4					150	8.78	8.00	-	0		
P5143-03	1	No	7.14	N/A	20.00	5	9.68	9.01	-	0		
P5143-03	2					20	9.65	8.91	-	0		
P5143-03	3					50	9.62	8.40	-	0		
P5143-03	4					150	9.60	7.99	-	0		
P5143-05	1	No	6.91	N/A	20.00	5	9.70	8.90	-	0		
P5143-05	2					20	9.68	8.47	-	0		
P5143-05	3					50	9.65	8.38	-	0		
P5143-05	4					150	9.60	7.96	-	0		
P5145-01	1	No	7.17	N/A	20.00	5	9.80	8.43	-	0	22.35	
P5145-01	2					20	9.78	7.79	-	0		

P5145-01	3					50	9.75	3.68	6.07	32.94		
P5145-01	4					150	9.74	3.28	6.46	11.76		
P5146-01	1	No	8.66	7.19	20.00	0.5	9.80	1.01	8.79	4926	4926	pH Adjuster
P5146-01	2					1	9.72	0.31	-	0		
P5146-01	3					2	9.53	0.20	-	0		
P5146-01	4					5	9.18	0.19	-	0		
P5146-01	5					10	8.60	0.15	-	0		
P5146-05	1	No	4.47	6.80	20.00	0.01	9.72	7.24	2.48	57000	32320	pH Adjuster
P5146-05	2					0.05	9.66	5.07	4.59	24060		
P5146-05	3					0.1	9.64	3.76	5.88	15900		
P5146-05	4					0.5	9.22	0.16	-	0		
P5146-05	5					1	8.51	0.11	-	0		

**NOTE: 2ml POLYSEED added to GGA and all the Samples, but not in Blank.**

**NOTE (For, CBOD5): 0.16 g Nitrification Inhibitor added to GGA and all the Samples, but not in Blank.**

# WORKLIST(Hardcopy Internal Chain)

6133770

WorkList Name : bod-12-05

WorkList ID : 186023

Department : Wet-Chemistry

Date : 12-05-2024 15:34:08

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5141-01	WATER TREATMENT DISCHAF	Water	BOD5	Cool 4 deg C	VERI01	M11	12/05/2024	SM5210 B
P5143-01	DSN002	Water	BOD5	Cool 4 deg C	PSEG04	L51	12/05/2024	SM5210 B
P5143-03	DSN001	Water	BOD5	Cool 4 deg C	PSEG04	L51	12/05/2024	SM5210 B
P5143-05	DSN003	Water	BOD5	Cool 4 deg C	PSEG04	L51	12/05/2024	SM5210 B
P5145-01	286085	Water	BOD5	Cool 4 deg C	PSEG03	L51	12/05/2024	SM5210 B

Date/Time 12/05/2024 16:10  
 Raw Sample Received by: RM CWJ  
 Raw Sample Relinquished by: AWCJ

Date/Time 12/05/2024 17:00  
 Raw Sample Received by: JAC  
 Raw Sample Relinquished by: RM CWJ

WORKLIST(Hardcopy Internal Chain)

66133770

WorkList Name : bod5-12-5

WorkList ID : 185986

Department : Wet-Chemistry

Date : 12-05-2024 08:13:17

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5074-02	COMP	Water	BOD5	Cool 4 deg C	ARAM01	M11	12/04/2024	SM5210 B
P5139-01	001-WILLETTS-PT-BLVD(DEC)	Water	BOD5	Cool 4 deg C	TULL01	L51	12/04/2024	SM5210 B
P5139-02	002-35TH-AVE(DEC)	Water	BOD5	Cool 4 deg C	TULL01	L51	12/04/2024	SM5210 B
P5146-01	EFFLUENT	Water	BOD5	Cool 4 deg C	HOLL01	M11	12/05/2024	SM5210 B
P5146-05	INFLUENT	Water	BOD5	Cool 4 deg C	HOLL01	M11	12/05/2024	SM5210 B

Date/Time 12/05/2024 15:25  
Raw Sample Received by: RMCWJ  
Raw Sample Relinquished by: M66CJ

Date/Time 12/05/2024 17:00  
Raw Sample Received by: M66CJ  
Raw Sample Relinquished by: RMCWJ

## Extraction and Analytical Summary Report

**Analysis Method:** 1664A  
**Test:** Oil and Grease  
**Run Number:** LB133785  
**Analysis Date:** 12/06/2024  
**BalanceID:** WC SC-6  
**OvenID:** EXT OVEN-3

**ANALYST:** jignesh  
**REVIEWED BY:** Iwona  
**Extraction Date:** 12/06/2024  
**Extraction IN Time:** 09:25  
**Extraction OUT Time:** 09:48  
**Thermometer ID:** EXT OVEN#3

Dish #	Lab ID	Client ID	Matrix	pH	Sample Vol (ml)	Final Volume (ml)	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Silica Gel Weight (g)	Weight After Drying (g)	Final Weight After Drying (g)	Change Weight (g)	Result in ppm
1	LB133785BL	LB133785BL	WATER	1.3	1000	100	3.2556	3.2556	0	3.2556	3.2556	0.0000	0
2	LB133785BS	LB133785BS	WATER	1.3	1000	100	2.7413	2.7413	0	2.7581	2.7581	0.0168	16.8
3	P5138-01	001-WILLETS-PT-BLVD (NOV)	WATER	1.6	1000	100	3.0604	3.0604	0	3.0876	3.0876	0.0272	27.2
4	P5138-02	002-35TH-AVE (NOV)	WATER	1.6	1000	100	3.0684	3.0684	0	3.0942	3.0942	0.0258	25.8
5	P5139-01	001-WILLETS-PT-BLVD (DEC)	WATER	1.6	1000	100	3.0681	3.0681	0	3.0745	3.0745	0.0064	6.4
6	P5139-02	002-35TH-AVE (DEC)	WATER	1.6	1000	100	3.0997	3.0997	0	3.1071	3.1071	0.0074	7.4
7	P5141-02	WATER TREATMENT DISCHARGE	WATER	1.3	1000	100	3.0837	3.0837	0	3.0848	3.0848	0.0011	1.1
8	P5141-03	P5141-02MS	WATER	1.3	1000	100	3.1156	3.1156	0	3.1369	3.1369	0.0213	21.3
9	P5141-04	P5141-02MSD	WATER	1.3	1000	100	3.1967	3.1967	0	3.2184	3.2184	0.0217	21.7
10	P5146-01	EFFLUENT	WATER	1.6	1000	100	3.1151	3.1151	0	3.1414	3.1414	0.0263	26.3
11	P5146-02	P5146-01MS	WATER	1.6	1000	100	2.8633	2.8633	0	2.9099	2.9099	0.0466	46.6
12	P5146-03	P5146-01MSD	WATER	1.6	1000	100	3.0521	3.0521	0	3.0980	3.0980	0.0459	45.9

QC Batch# LB133785

**Test:** Oil and Grease

**Analysis Date:** 12/06/2024

### Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3153
pH Paper 0-14	M6069
Sodium Sulfate	EP2570
1:1 HCL	WP110826
Silica Gel	NA
Sand	NA

### Standards Used:

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

### BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

## Before Analysis

0.0020 gram Balance: 0.0019 (0.0018-0.0022) In OVEN TEMP1 : 70 °C Dessicator Time In1 : 11:36

1.0000 gram Balance: 1.0004 (0.9950-1.0050) In Time1: 10:30

Bal Check Time: 09:30 Out OVEN TEMP1: 70 °C Dessicator Time Out1: 12:15

Out Time1: 11:35

## After Analysis

0.0020 gram Balance: 0.0021 (0.0018-0.0022) In OVEN TEMP2 : 71 °C Dessicator Time In2 : 13:26

1.0000 gram Balance: 1.0005 (0.9950-1.0050) In Time2: 12:45

Bal Check Time: 14:02 Out OVEN TEMP2: 71 °C Dessicator Time Out2: 14:00

Out Time2: 13:25

LB 133785

WORKLIST(Hardcopy Internal Chain)

WorkList Name : oil & grease p5138      WorkList ID : 186059      Department : Wet-Chemistry      Date : 12-06-2024 09:11:30

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5138-01	C 001-WILLETS-PT-BLVD(NOV)	Water	Oil and Grease	Conc H2SO4 to pH < 2	TULL01	L51	12/04/2024	1664A
P5138-02	C 002-35TH-AVE(NOV)	Water	Oil and Grease	Conc H2SO4 to pH < 2	TULL01	L51	12/04/2024	1664A
P5139-01	F 001-WILLETS-PT-BLVD(DEC)	Water	Oil and Grease	Conc H2SO4 to pH < 2	TULL01	L51	12/04/2024	1664A
P5139-02	F 002-35TH-AVE(DEC)	Water	Oil and Grease	Conc H2SO4 to pH < 2	TULL01	L51	12/04/2024	1664A
P5141-02	B WATER TREATMENT DISCHAI	Water	Oil and Grease	Conc H2SO4 to pH < 2	VERI01	M11	12/05/2024	1664A
P5141-03	P5141-02MS	Water	Oil and Grease	Conc H2SO4 to pH < 2	VERI01	M11	12/05/2024	1664A
P5141-04	P5141-02MSD	Water	Oil and Grease	Conc H2SO4 to pH < 2	VERI01	M11	12/05/2024	1664A
P5146-01	F EFFLUENT	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	M11	12/05/2024	1664A
P5146-02	P5146-01MS	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	M11	12/05/2024	1664A
P5146-03	P5146-01MSD	Water	Oil and Grease	Conc H2SO4 to pH < 2	HOLL01	M11	12/05/2024	1664A

Date/Time 12/06/24 09:11:30  
Raw Sample Received by: LB 133785  
Raw Sample Relinquished by: LB 133785

Date/Time 12/06/24  
Raw Sample Received by: LB 133785  
Raw Sample Relinquished by: LB 133785



## Analytical Summary Report

Analysis Method: SM5220 D  
Parameter: COD  
Run Number: LB133837

ANALYST: Iwona

SUPERVISOR REVIEW BY: jignesh

Reagent/Standard	Lot/Log #
COD calibration std. 10 ppm	WP110197
COD calibration std. 150 ppm	WP110200
COD calibration std. 50 ppm	WP110198
COD calibration std. 0 ppm	WP110196
COD ICV-LCS std, 50ppm	WP110658
COD calibration std. 100 ppm	WP110199
COD ICV-LCS std, 50ppm	WP110926
COD CCV std, 50ppm	WP110925
COD Digestion Vials Low Level 0-150Mg/L	W3125

Temp In (C): <u>148</u>	Date In: <u>12/09/2024</u>	Time In: <u>09:55</u>
Temp Out (C): <u>151</u>	Date Out: <u>12/09/2024</u>	Time Out: <u>11:55</u>

Intercept: -0.0642      Slope: 0.9946      Regression: 0.9998

Seq	Lab ID	TrueValue (mg/l)	DF	MATRIX	Reading	Result (mg/l)	%D	Anal Date	Anal Time
1	CAL1	0	1	Water	0.000	0.065		10/14/2024	13:10
2	CAL2	10	1	Water	9.000	9.113	-8.9	10/14/2024	13:10
3	CAL3	50	1	Water	50.000	50.336	0.7	10/14/2024	13:11
4	CAL4	100	1	Water	101.000	101.613	1.6	10/14/2024	13:11
5	CAL5	150	1	Water	148.000	148.868	-0.8	10/14/2024	13:12

## Analytical Summary Report

Analysis Method: SM5220 D

ANALYST: Iwona

Parameter: COD

SUPERVISOR REVIEW BY: jignesh

Run Number: LB133837

Seq	Lab ID	True Value (mg/l)	Initial Weight (g)	Final Vol (ml)	DF	MATRIX	Reading	Result	AnalDate	AnalTime
1	ICV	50	NA	NA	1	Water	51.000	51.341	10/14/2024	13:12
2	ICB		NA	NA	1	Water	0.000	0.065	10/14/2024	13:13
3	CCV1	50	NA	NA	1	Water	51.000	51.341	12/09/2024	14:20
4	CCB1		NA	NA	1	Water	1.000	1.070	12/09/2024	14:20
5	LB133837BL		NA	NA	1	Water	1.000	1.070	12/09/2024	14:21
6	LB133837BS	50	NA	NA	1	Water	49.000	49.331	12/09/2024	14:21
7	P5141-01		NA	NA	1	Water	138.000	138.814	12/09/2024	14:22
8	P5143-01		NA	NA	1	Water	71.000	71.450	12/09/2024	14:22
9	P5143-01DUP		NA	NA	1	Water	72.000	72.455	12/09/2024	14:23
10	P5143-01MS	50	NA	NA	1	Water	117.000	117.700	12/09/2024	14:23
11	P5143-01MSD	50	NA	NA	1	Water	115.000	115.689	12/09/2024	14:24
12	P5143-03		NA	NA	1	Water	94.000	94.575	12/09/2024	14:24
13	P5143-04		NA	NA	1	Water	97.000	97.591	12/09/2024	14:25
14	P5143-05		NA	NA	1	Water	26.000	26.206	12/09/2024	14:25
15	CCV2	50	NA	NA	1	Water	50.000	50.336	12/09/2024	14:26
16	CCB2		NA	NA	1	Water	1.000	1.070	12/09/2024	14:26
17	P5145-01		NA	NA	5	Water	107.000	107.645	12/09/2024	14:26
18	CCV3	50	NA	NA	1	Water	51.000	51.341	12/09/2024	14:27
19	CCB3		NA	NA	1	Water	1.000	1.070	12/09/2024	14:27

LB 132837

WORKLIST(Hardcopy Internal Chain)

WorkList Name : COD-120924

WorkList ID : 186150

Department : Wet-Chemistry

Date : 12-09-2024 09:30:34

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5141-01	WATER TREATMENT DISCHAI	Water	COD	Conc H2SO4 to pH < 2	VERI01	M11	12/05/2024	SM5220 D
P5143-01	DSN002	Water	COD	Conc H2SO4 to pH < 2	PSEG04	L51	12/05/2024	SM5220 D
P5143-03	DSN001	Water	COD	Conc H2SO4 to pH < 2	PSEG04	L51	12/05/2024	SM5220 D
P5143-04	DSN001	Water	COD	Conc H2SO4 to pH < 2	PSEG04	L51	12/05/2024	SM5220 D
P5143-05	DSN003	Water	COD	Conc H2SO4 to pH < 2	PSEG04	L51	12/05/2024	SM5220 D
P5145-01	286085	Water	COD	Conc H2SO4 to pH < 2	PSEG03	L51	12/05/2024	SM5220 D

Date/Time 12/09/24 09:35  
Raw Sample Received by: 12 (SC)  
Raw Sample Relinquished by: [Signature]

Date/Time 12/09/24 10:20  
Raw Sample Received by: [Signature]  
Raw Sample Relinquished by: 12 (SC)

# TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: Niha

Date: 12/06/2024

Run Number: LB133838

BalanceID: WC SC-6

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 103 °C 12/06/2024 11:00 TEMP1 OUT: 104 °C 12/06/2024 12:00  
 TEMP2 IN: 104 °C 12/06/2024 12:30 TEMP2 OUT: 103 °C 12/06/2024 13:30  
 TEMP3 IN: 104 °C 12/09/2024 11:00 TEMP3 OUT: 103 °C 12/09/2024 12:30  
 TEMP4 IN: 104 °C 12/09/2024 13:00 TEMP4 OUT: 103 °C 12/09/2024 14:30

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
1	LB133838BL	LB133838BL	1.4235	1.4235	100	1.4235	1.4235	1.4235	0.0000	0
2	LB133838BS	LB133838BS	1.3952	1.3952	100	1.4482	1.4482	1.4482	0.0530	530
3	P5068-01	14B-1	1.4036	1.4036	10	1.4486	1.4486	1.4486	0.0450	4500
4	P5068-01DUP	14B-1DUP	1.4102	1.4102	10	1.4555	1.4555	1.4555	0.0453	4530
5	P5068-02	14B-2	1.4080	1.4080	10	1.4658	1.4658	1.4658	0.0578	5780
6	P5068-03	14B-3	1.3592	1.3592	10	1.4088	1.4088	1.4088	0.0496	4960
7	P5068-04	14B-4	1.3586	1.3586	10	1.4205	1.4205	1.4205	0.0619	6190
8	P5074-02	COMP	1.3585	1.3585	100	1.4460	1.4460	1.4460	0.0875	875
9	P5138-01	001-WILLETTS-PT-BLVD (NOV)	1.3616	1.3616	150	1.3768	1.3768	1.3768	0.0152	101.3
10	P5138-02	002-35TH-AVE (NOV)	1.3882	1.3882	150	1.4046	1.4046	1.4046	0.0164	109.3
11	P5139-01	001-WILLETTS-PT-BLVD (DEC)	1.3945	1.3945	200	1.4112	1.4112	1.4112	0.0167	83.5
12	P5139-02	002-35TH-AVE (DEC)	1.3662	1.3662	200	1.3842	1.3842	1.3842	0.0180	90
13	P5141-01	WATER TREATMENT DISCHARGE	1.3633	1.3633	500	1.3673	1.3673	1.3673	0.0040	8
14	P5142-01	TOWERS-1	1.4019	1.4019	2000	1.4123	1.4123	1.4123	0.0104	5.2
15	P5142-03	TOWERS-2	1.3938	1.3938	1000	1.4007	1.4007	1.4007	0.0069	6.9

**TOTAL SUSPENDED SOLIDS - SM2540D**

**SUPERVISOR:** Iwona

**ANALYST:** Niha

**Date:** 12/06/2024

**Run Number:** LB133838

**BalanceID:** WC SC-6

**OvenID:** WC OVEN-1

**FilterID:** 17416528

**ThermometerID:** WET OVEN#1

**TEMP1 IN:** 103 °C 12/06/2024 11:00 **TEMP1 OUT:** 104 °C 12/06/2024 12:00  
**TEMP2 IN:** 104 °C 12/06/2024 12:30 **TEMP2 OUT:** 103 °C 12/06/2024 13:30  
**TEMP3 IN:** 104 °C 12/09/2024 11:00 **TEMP3 OUT:** 103 °C 12/09/2024 12:30  
**TEMP4 IN:** 104 °C 12/09/2024 13:00 **TEMP4 OUT:** 103 °C 12/09/2024 14:30

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
16	P5143-01	DSN002	1.3569	1.3569	1000	1.3747	1.3747	1.3747	0.0178	17.8
17	P5143-03	DSN001	1.3967	1.3967	1000	1.4128	1.4128	1.4128	0.0161	16.1
18	P5143-05	DSN003	1.3983	1.3983	2000	1.4073	1.4073	1.4073	0.0090	4.5
19	P5145-01	286085	1.3954	1.3954	300	1.6235	1.6235	1.6235	0.2281	760.3
20	P5146-01	EFFLUENT	1.4009	1.4009	10	1.4173	1.4173	1.4173	0.0164	1640
21	P5146-04	AERATION TK 1	1.4004	1.4004	10	1.4273	1.4273	1.4273	0.0269	2690
22	P5192-02	EFF-WASTE WATER	1.4120	1.4120	500	1.4276	1.4276	1.4276	0.0156	31.2

A = Sample Volume (ml)

B = Final Empty Dish Weight (g)

C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)

D = Weight (g)

**Weight (g) = C - B**

**Result mg/L =  $\frac{D}{A} \times 1000 \times 1000$**

# WORKLIST(Hardcopy Internal Chain)

LB133838

WorkList Name : TSS-12052024

WorkList ID : 186012

Department : Wet-Chemistry

Date : 12-05-2024 12:33:29

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5074-02	COMP	Water	TSS	Cool 4 deg C	ARAM01	M11	12/04/2024	SM2540 D
P5068-01	14B-1	Water	TSS	Cool 4 deg C	NEWY17	L61	12/03/2024	SM2540 D
P5068-02	14B-2	Water	TSS	Cool 4 deg C	NEWY17	L61	12/03/2024	SM2540 D
P5068-03	14B-3	Water	TSS	Cool 4 deg C	NEWY17	L61	12/03/2024	SM2540 D
P5068-04	14B-4	Water	TSS	Cool 4 deg C	NEWY17	L61	12/03/2024	SM2540 D
P5145-01	286085	Water	TSS	Cool 4 deg C	NEWY17	L61	12/03/2024	SM2540 D
P5142-01	TOWERS-1	Water	TSS	Cool 4 deg C	PSEG03	L51	12/05/2024	SM2540 D
P5142-03	TOWERS-2	Water	TSS	Cool 4 deg C	PSEG04	L61	12/05/2024	SM2540 D
P5143-01	DSN002	Water	TSS	Cool 4 deg C	PSEG04	L61	12/05/2024	SM2540 D
P5143-03	DSN001	Water	TSS	Cool 4 deg C	PSEG04	L51	12/05/2024	SM2540 D
P5143-05	DSN003	Water	TSS	Cool 4 deg C	PSEG04	L51	12/05/2024	SM2540 D
P5141-01	WATER TREATMENT DISCHAF	Water	TSS	Cool 4 deg C	PSEG04	L51	12/05/2024	SM2540 D
P5192-02	EFF-WASTE WATER	Water	TSS	Cool 4 deg C	VERI01	M11	12/05/2024	SM2540 D
P5146-01	EFFLUENT	Water	TSS	Cool 4 deg C	ARDM01	M11	12/06/2024	SM2540 D
P5146-04	AERATION TK 1	Water	TSS	Cool 4 deg C	HOLL01	M11	12/05/2024	SM2540 D
P5138-01	001-WILLETS-PT-BLVD(NOV)	Water	TSS	Cool 4 deg C	HOLL01	M11	12/05/2024	SM2540 D
P5138-02	002-35TH-AVE(NOV)	Water	TSS	Cool 4 deg C	TULL01	L51	12/04/2024	SM2540 D
P5139-01	001-WILLETS-PT-BLVD(DEC)	Water	TSS	Cool 4 deg C	TULL01	L51	12/04/2024	SM2540 D
P5139-02	002-35TH-AVE(DEC)	Water	TSS	Cool 4 deg C	TULL01	L51	12/04/2024	SM2540 D

Date/Time 12.09.2024 10:00  
Raw Sample Received by: NPW  
Raw Sample Relinquished by: OP SN

Reviewed By: Iwona  
On: 12/9/2024 4:07:11 PM  
Inst Id : WC SC-3  
LB : LB133838

Date/Time 12.09.2024 12:00  
Raw Sample Received by: OP SN  
Raw Sample Relinquished by: NPW

161338

Test results

Aquakem 7.2AQ1

Page:

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

Reviewed by : RM

Instrument ID : Konelab

12/9/2024 14:55

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	1.044	0.0	0.141	
ICB1	-0.007	0.0	0.029	
CCV1	1.062	0.0	0.143	
CCB1	-0.008	0.0	0.029	
RL CHECK	0.089	0.0	0.040	
PB165461BL	-0.013	0.0	0.029	
PB165461BS	1.038	0.0	0.140	
P5139-01	1.782	0.0	0.219	
P5139-01DUP	1.790	0.0	0.220	
P5139-01MS	2.839	0.0	0.331	
P5139-01MSD	2.852	0.0	0.333	Test limit high
P5139-02	1.918	0.0	0.233	Test limit high
P5141-01	0.695	0.0	0.104	
P5145-01	-0.023	0.0	0.028	
CCV2	1.027	0.0	0.139	
CCB2	0.003	0.0	0.030	
P5146-01	10.410	0.0	1.134	Test limit high
P5146-05	3.526	0.0	0.404	Test limit high
CCV3	1.022	0.0	0.138	
CCB3	-0.003	0.0	0.030	
P5146-01DLX10	1.050	0.0	0.141	
P5146-05DLX2	1.722	0.0	0.213	
CCV4	1.048	0.0	0.141	
CCB4	-0.001	0.0	0.030	
N	24			
Mean	1.453			
SD	2.1616			
CV%	148.82			

89% (50-150)

12/09/2024  
RM

Aquakem v. 7.2AQ1

Results from time period:

Mon Dec 09 13:33:57 2024

Mon Dec 09 14:54:49 2024

Sample Id	Sam/Ctr/cf	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	Ammonia-† P		-0.0238	mg/l	12/9/2024 13:33:57	
0.1PPM	A	Ammonia-† P		0.1062	mg/l	12/9/2024 13:33:58	
0.2PPM	A	Ammonia-† P		0.1973	mg/l	12/9/2024 13:33:59	
0.4PPM	A	Ammonia-† P		0.3879	mg/l	12/9/2024 13:34:00	
1.0PPM	A	Ammonia-† P		1.0493	mg/l	12/9/2024 13:34:01	
1.3PPM	A	Ammonia-† P		1.3494	mg/l	12/9/2024 13:34:02	
2.0PPM	A	Ammonia-† P		1.967	mg/l	12/9/2024 13:34:03	
ICV1	S	Ammonia-† P		1.0438	mg/l	12/9/2024 14:06:34	
ICB1	S	Ammonia-† P		-0.0073	mg/l	12/9/2024 14:06:35	
CCV1	S	Ammonia-† P		1.0617	mg/l	12/9/2024 14:06:38	
CCB1	S	Ammonia-† P		-0.008	mg/l	12/9/2024 14:06:39	
RL CHECK	S	Ammonia-† P		0.0893	mg/l	12/9/2024 14:06:41	
PB165461BL	S	Ammonia-† P		-0.0128	mg/l	12/9/2024 14:06:44	
PB165461BS	S	Ammonia-† P		1.0378	mg/l	12/9/2024 14:17:18	
P5139-01	S	Ammonia-† P		1.7815	mg/l	12/9/2024 14:17:19	
P5139-01DUP	S	Ammonia-† P		1.7899	mg/l	12/9/2024 14:17:21	
P5139-01MS	S	Ammonia-† P		2.8389	mg/l	12/9/2024 14:17:23	
P5139-01MSD	S	Ammonia-† P		2.8523	mg/l	12/9/2024 14:17:24	
P5139-02	S	Ammonia-† P		1.9176	mg/l	12/9/2024 14:17:27	
P5141-01	S	Ammonia-† P		0.6952	mg/l	12/9/2024 14:17:28	
P5145-01	S	Ammonia-† P		-0.0232	mg/l	12/9/2024 14:27:24	
CCV2	S	Ammonia-† P		1.0268	mg/l	12/9/2024 14:27:25	
CCB2	S	Ammonia-† P		0.0029	mg/l	12/9/2024 14:27:28	
P5146-01	S	Ammonia-† P		10.4104	mg/l	12/9/2024 14:27:29	
P5146-05	S	Ammonia-† P		3.5257	mg/l	12/9/2024 14:27:30	
CCV3	S	Ammonia-† P		1.0221	mg/l	12/9/2024 14:27:32	
CCB3	S	Ammonia-† P		-0.0032	mg/l	12/9/2024 14:27:34	
P5146-01DLX10	S	Ammonia-† P		1.0503	mg/l	12/9/2024 14:54:42	
P5146-05DLX2	S	Ammonia-† P		1.7223	mg/l	12/9/2024 14:54:45	
CCV4	S	Ammonia-† P		1.0482	mg/l	12/9/2024 14:54:47	
CCB4	S	Ammonia-† P		-0.0009	mg/l	12/9/2024 14:54:48	



Calibration results

Aquakem 7.2AQ1

Page: 1

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

Reviewed by : RM

Instrument ID : Konelab

12/9/2024 13:35

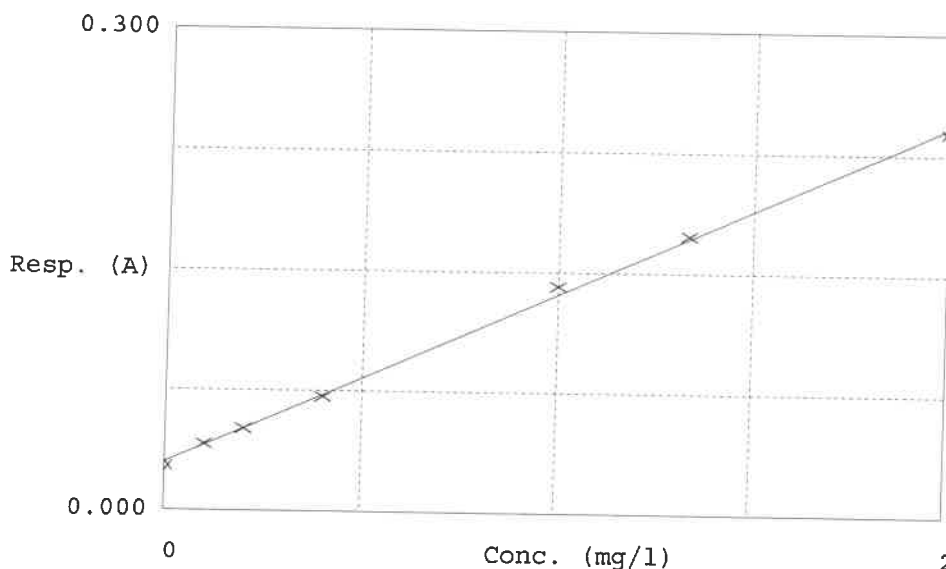
Test Ammonia-N

Accepted 12/9/2024 13:35

Factor 9.431  
 Bias 0.030

Coeff. of det. 0.998655

Errors



	Calibrator	Response	Calc. con.	Conc.	Re Errors
1	0.00PPM	0.028	-0.0238	0.0000	-
2	NH3-2PPM	0.041	0.1062	0.1000	6.2
3	NH3-2PPM	0.051	0.1973	0.2000	-1.4
4	NH3-2PPM	0.071	0.3879	0.4000	-3.0
5	NH3-2PPM	0.141	1.0493	1.0000	4.9
6	NH3-2PPM	0.173	1.3494	1.3333	3.8
7	NH3-2PPM	0.239	1.9670	2.0000	-1.7

12/09/2024  
 RM

Test results

Aquakem 7.2AQ1

Page:

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

12/9/2024 13:01

Reviewed by : NF Instrument ID : Konelab

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	102.772	0.0	0.071	
ICB1	-0.077	0.0	0.002	
CCV1	256.384	0.0	0.174	
CCB1	-0.300	0.0	0.002	
PB165498BL	-0.420	0.0	0.002	
PB165498BS	102.356	0.0	0.071	
LOWPB165498	10.309	0.0	0.009	
HIGHPB165498	502.004	0.0	0.338	
P5093-01	1.018	0.0	0.003	
P5093-02	-0.359	0.0	0.002	
P5093-02DUP	-0.408	0.0	0.002	
P5093-02MS	38.453	0.0	0.028	
P5093-02MSD	37.749	0.0	0.027	
P5141-02	2.415	0.0	0.004	
CCV2	249.536	0.0	0.169	
CCB2	-0.276	0.0	0.002	
PB165499BL	-0.462	0.0	0.002	
PB165499BS	99.679	0.0	0.069	
P5117-02	-0.014	0.0	0.002	
P5117-02DUP	0.480	0.0	0.003	
P5117-02MS	35.929	0.0	0.026	
P5117-02MSD	36.112	0.0	0.026	
CCV3	272.285	0.0	0.184	
CCB3	-0.422	0.0	0.002	

N 24  
Mean 72.698  
SD 125.7840  
CV% 173.02

(90-110) NF 12-09-2024  
103% 100%

Aquakem v. 7.2AQ1

Results from time period:

Mon Dec 09 12:39:46 2024

Mon Dec 09 12:58:46 2024

Sample Id	Sam/Ctr/c/	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	-1.0904	µg/l	12/9/2024 11:10:55	
5.0PPBCN	A	Total CN	P	3.6171	µg/l	12/9/2024 11:10:56	
10PPBCN	A	Total CN	P	10.2339	µg/l	12/9/2024 11:10:57	
50PPBCN	A	Total CN	P	50.8618	µg/l	12/9/2024 11:10:58	
100PPBCN	A	Total CN	P	103.4693	µg/l	12/9/2024 11:10:59	
250PPBCN	A	Total CN	P	247.3582	µg/l	12/9/2024 11:11:00	
500PPBCN	A	Total CN	P	500.55	µg/l	12/9/2024 11:11:01	
ICV1	S	Total CN	P	102.7721	µg/l	12/9/2024 12:39:47	
ICB1	S	Total CN	P	-0.0775	µg/l	12/9/2024 12:39:49	
CCV1	S	Total CN	P	256.3836	µg/l	12/9/2024 12:39:51	
CCB1	S	Total CN	P	-0.3002	µg/l	12/9/2024 12:39:52	
PB165498BL	S	Total CN	P	-0.4199	µg/l	12/9/2024 12:39:54	
PB165498BS	S	Total CN	P	102.3559	µg/l	12/9/2024 12:47:18	
LOWPB165498	S	Total CN	P	10.309	µg/l	12/9/2024 12:47:20	
HIGHPB165498	S	Total CN	P	502.0039	µg/l	12/9/2024 12:47:21	
P5093-01	S	Total CN	P	1.0184	µg/l	12/9/2024 12:47:23	
P5093-02	S	Total CN	P	-0.3594	µg/l	12/9/2024 12:47:24	
P5093-02DUP	S	Total CN	P	-0.408	µg/l	12/9/2024 12:47:25	
P5093-02MS	S	Total CN	P	38.4534	µg/l	12/9/2024 12:47:26	
P5093-02MSD	S	Total CN	P	37.7492	µg/l	12/9/2024 12:47:27	
P5141-02	S	Total CN	P	2.4147	µg/l	12/9/2024 12:54:54	
CCV2	S	Total CN	P	249.5362	µg/l	12/9/2024 12:54:55	
CCB2	S	Total CN	P	-0.2762	µg/l	12/9/2024 12:54:56	
PB165499BL	S	Total CN	P	-0.4622	µg/l	12/9/2024 12:54:57	
PB165499BS	S	Total CN	P	99.6788	µg/l	12/9/2024 12:54:58	
P5117-02	S	Total CN	P	-0.0135	µg/l	12/9/2024 12:54:59	
P5117-02DUP	S	Total CN	P	0.4804	µg/l	12/9/2024 12:55:00	
P5117-02MS	S	Total CN	P	35.9291	µg/l	12/9/2024 12:55:01	
P5117-02MSD	S	Total CN	P	36.1123	µg/l	12/9/2024 12:55:02	
CCV3	S	Total CN	P	272.2852	µg/l	12/9/2024 12:58:45	
CCB3	S	Total CN	P	-0.4223	µg/l	12/9/2024 12:58:46	

Calibration results

Aquakem 7.2AQ1

Page: 1

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

Reviewed by : NF

Instrument ID : Konelab

12/9/2024 11:11

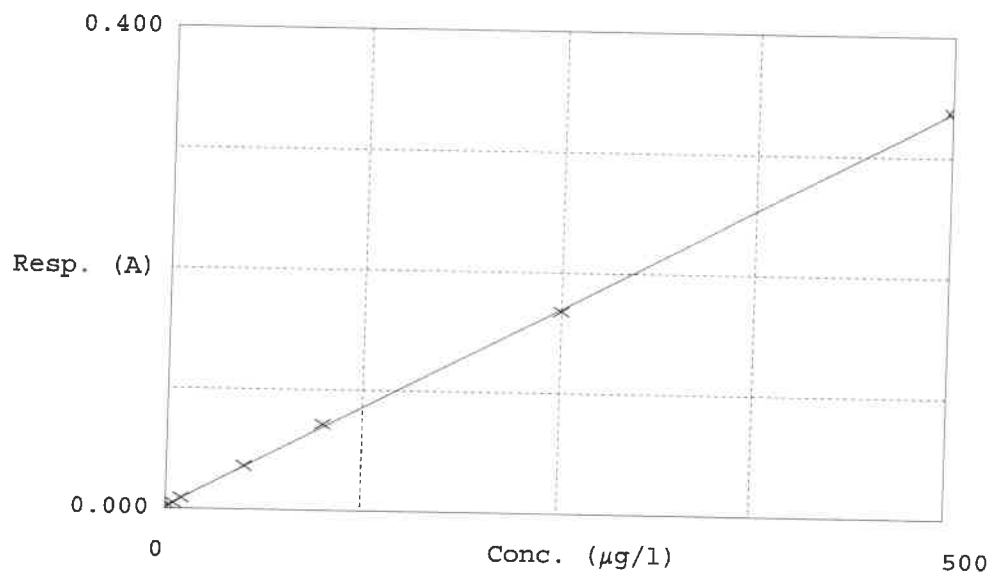
Test Total CN

Accepted 12/9/2024 11:11

Factor 1494  
Bias 0.002

Coeff. of det. 0.999887

Errors



	Calibrator	Response	Calc. con.	Conc.	Re Errors
1	0.0PPBCN	0.001	-1.0904	0.0000	
2	5.0PPBCN	0.005	3.6171	5.0000	-27.7
3	10PPBCN	0.009	10.2339	10.0000	2.3
4	50PPBCN	0.036	50.8618	50.0000	1.7
5	100PPBCN	0.071	103.4693	100.0000	3.5
6	250PPBCN	0.168	247.3582	250.0000	-1.1
7	500PPBCN	0.337	500.5500	500.0000	0.1

NF

12/09/2024

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

SDG No : N/A

Matrix : WATER

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#2

Block ID : WC-DIST-BLOCK-1

Weigh By : N/A

Start Digest Date: 12/09/2024 Time : 08:50 Temp : 150 °C

End Digest Date: 12/09/2024 Time : 09:50 Temp : 160 °C

*il bdel* 12/09/2024 10:10 150 °C } RM  
12/09/2024 11:10 160 °C

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Filter paper ID : N/A

Prep Technician Signature: *RM*

pH Meter ID : N/A

Supervisor Signature: *12*

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP110715
MS/MSD SPIKE SOL.	1.0ML	WP110714
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP110714
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP108708
NAOH 6N	0.5-2.0ML	WP108660
H2SO4 0.04N	5.0ML	WP110335
pH strip-Ammonia	N/A	W3133
KI-starch paper	N/A	W3155
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

## Extraction Conformance/Non-Conformance Comments:

ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT  
WP108814, Due to bad matrix and client history 1ML was taken as an initial volume for P5146-01 and P5146-05.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/09/2024 11:30	<i>RM cwc</i>	<i>RM cwc</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P5139-01	001-WILLETS-PT-BLVD(DEC)	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P5139-01DUP	001-WILLETS-PT-BLVD(DEC) DUP	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P5139-01MS	001-WILLETS-PT-BLVD(DEC) MS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P5139-01MSD	001-WILLETS-PT-BLVD(DEC) MSD	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P5139-02	002-35TH-AVE(DEC)	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P5141-01	WATER TREATMENT DISCHARGE	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P5145-01	286085	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P5146-01	EFFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P5146-05	INFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB165461BL	PBW461	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB165461BS	LCS461	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : ammonia-1206

WorkList ID : 186040

Department : Distillation

Date : 12-06-2024 08:20:18

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5139-01	001-WILLETS-PT-BLVD(DEC)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	L51	12/04/2024	SM4500-NH3
P5139-02	002-35TH-AVE(DEC)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	L51	12/04/2024	SM4500-NH3
P5141-01	WATER TREATMENT DISCHAF	Water	Ammonia	Conc H2SO4 to pH < 2	VERI01	M11	12/05/2024	SM4500-NH3
P5145-01	286085	Water	Ammonia	Conc H2SO4 to pH < 2	PSEG03	L51	12/05/2024	SM4500-NH3
P5146-01	EFFLUENT	Water	Ammonia	Conc H2SO4 to pH < 2	HOLL01	M11	12/05/2024	SM4500-NH3
P5146-05	INFLUENT	Water	Ammonia	Conc H2SO4 to pH < 2	HOLL01	M11	12/05/2024	SM4500-NH3

Date/Time 12/09/2024 08:20  
 Raw Sample Received by: RM (wc)  
 Raw Sample Relinquished by: JP(DC)

Date/Time 10/09/2024 09:20  
 Raw Sample Received by: JP(DC)  
 Raw Sample Relinquished by: RM (wc)

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

SDG No : N/A

Start Digest Date: 12/07/2024 Time : 10:00 Temp : 124 °C

Matrix : WATER

End Digest Date: 12/07/2024 Time : 11:30 Temp : 126 °C

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Block ID : MC-1, MC-2

Filter paper ID : N/A

Prep Technician Signature: 18

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: 12

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	1ML	WP109549
MS/MSD SPIKE SOL.	0.40ML	WP110899
PBW	50ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50ML	WP108640
50% v/v H2SO4	5ML	WP110391
51% w/v MgCL2	2ML	WP110390
pH Paper 0-14	N/A	W3121
Nitrate/Nitrite Strip	N/A	W3101
Lead Acetate strip	N/A	W3134
KI-starch paper	N/A	W3155
0.4N Sulfamic Acid	5ML	WP110388
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	W3011
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	N/A	N/A
HIGHSTD	HIGHSTD	5.0ML	WP110899
LOWSTD	LOWSTD	0.1ML	WP110899

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12-07-2024, 11:40	20 LWC	NF(WC)
	Preparation Group	Analysis Group



Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P5093-01	LL-001	50	50	>12	Negative	Negative	Negative	N/A	N/A
P5093-02	LL-001-FB-12-4-24	50	50	>12	Negative	Negative	Negative	N/A	N/A
P5093-02DUP	LL-001-FB-12-4-24DUP	50	50	>12	Negative	Negative	Negative	N/A	N/A
P5093-02MS	LL-001-FB-12-4-24MS	50	50	>12	Negative	Negative	Negative	N/A	N/A
P5093-02MSD	LL-001-FB-12-4-24MSD	50	50	>12	Negative	Negative	Negative	N/A	N/A
P5141-02	WATER TREATMENT DISCHARGE	50	50	>12	Negative	Negative	Positive	N/A	N/A
PB165498BL	PBW498	50	50	>12	Negative	Negative	Negative	N/A	N/A
PB165498BS	LCS498	50	50	>12	Negative	Negative	Negative	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : CN WATER P5051

WorkList ID : 186085

Department : Distillation

Date : 12-07-2024 07:52:44

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5141-02	WATER TREATMENT DISCHARGE	Water	Cyanide	1:1 NaOH to pH >12	VERI01	M11	12/05/2024	9012B

Date/Time 12.07.2024 , 09:00  
Raw Sample Received by: RM (WC)  
Raw Sample Relinquished by: RM (WC)

Date/Time 12.07.2024, 11:09  
Raw Sample Received by: RM (WC)  
Raw Sample Relinquished by: RM (WC)

WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn water i5093

WorkList ID : 185977

Department : Distillation

Date : 12-04-2024 14:34:13

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5093-01	F LL-001	Water	Cyanide	1:1 NaOH to pH >12	RTHR01	L41	12/04/2024	9012B
P5093-02	F LL-001-FB-12-4-24	Water	Cyanide	1:1 NaOH to pH >12	RTHR01	L41	12/04/2024	9012B

Date/Time 12.07.2024, 09:00  
Raw Sample Received by: JH (edc)  
Raw Sample Relinquished by: JH (edc)

Date/Time 12.07.2024, 11:09  
Raw Sample Received by: JH (edc)  
Raw Sample Relinquished by: JH (edc)

**Instrument ID:** SPECTROPHOTOMETER-1

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133768**

Review By	Niha	Review On	12/6/2024 1:47:04 PM
Supervise By	Iwona	Supervise On	12/6/2024 2:05:50 PM
SubDirectory	LB133768	Test	Residual Chlorine
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP110973,WP110968,WP110969,WP110970,WP110967,WP110971,WP110972,W3147		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/05/24 15:45		Niha	OK
2	CAL2	CAL2	CAL	12/05/24 15:48		Niha	OK
3	CAL3	CAL3	CAL	12/05/24 15:51		Niha	OK
4	CAL4	CAL4	CAL	12/05/24 15:54		Niha	OK
5	CAL5	CAL5	CAL	12/05/24 15:57		Niha	OK
6	CAL6	CAL6	CAL	12/05/24 16:00		Niha	OK
7	ICV	ICV	ICV	12/05/24 16:03		Niha	OK
8	ICB	ICB	ICB	12/05/24 16:06		Niha	OK
9	CCV1	CCV1	CCV	12/05/24 16:09		Niha	OK
10	CCB1	CCB1	CCB	12/05/24 16:12		Niha	OK
11	LB133768BL	LB133768BL	MB	12/05/24 16:15		Niha	OK
12	LB133768BS	LB133768BS	LCS	12/05/24 16:18		Niha	OK
13	P5141-01	WATER TREATMENT	SAM	12/05/24 16:21		Niha	OK
14	P5141-01DUP	WATER TREATMENT	DUP	12/05/24 16:24		Niha	OK
15	P5141-01MS	WATER TREATMENT	MS	12/05/24 16:27		Niha	OK
16	P5141-01MSD	WATER TREATMENT	MSD	12/05/24 16:30		Niha	OK
17	CCV2	CCV2	CCV	12/05/24 16:33		Niha	OK
18	CCB2	CCB2	CCB	12/05/24 16:36		Niha	OK

**Instrument ID:** DO METER

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133770**

Review By	rubina	Review On	12/10/2024 2:37:16 PM
Supervise By	Iwona	Supervise On	12/12/2024 9:48:12 AM
SubDirectory	LB133770	Test	BOD5
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP110974,W3149,WP110386,W3103,W3109,W3105,WP110976,WP110975,WP108662		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB133770BL	LB133770BL	MB	12/05/24 17:40		rubina	OK
2	LB133770BS	LB133770BS	LCS	12/05/24 17:40		rubina	OK
3	P5074-02	COMP	SAM	12/05/24 17:40	Intermediate dilution	rubina	OK
4	P5074-02DUP	COMPDUP	DUP	12/05/24 17:40	Intermediate dilution	rubina	OK
5	P5139-01	001-WILLETTS-PT-BL	SAM	12/05/24 17:40		rubina	OK
6	P5139-02	002-35TH-AVE(DEC)	SAM	12/05/24 17:40		rubina	OK
7	P5141-01	WATER TREATMENT	SAM	12/05/24 17:40		rubina	OK
8	P5143-01	DSN002	SAM	12/05/24 17:40		rubina	OK
9	P5143-03	DSN001	SAM	12/05/24 17:40		rubina	OK
10	P5143-05	DSN003	SAM	12/05/24 17:40		rubina	OK
11	P5145-01	286085	SAM	12/05/24 17:40		rubina	OK
12	P5146-01	EFFLUENT	SAM	12/05/24 17:40	Intermediate dilution	rubina	OK
13	P5146-05	INFLUENT	SAM	12/05/24 17:40	Intermediate dilution	rubina	OK

**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133785**

Review By	jignesh	Review On	12/6/2024 2:34:01 PM
Supervise By	Iwona	Supervise On	12/12/2024 11:50:38 AM
SubDirectory	LB133785	Test	Oil and Grease
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3153,M6069,EP2570,WP110826,NA,NA,WP100827,NA,WP100828		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB133785BL	LB133785BL	MB	12/06/24 10:30		jignesh	OK
2	LB133785BS	LB133785BS	LCS	12/06/24 10:30		jignesh	OK
3	P5138-01	001-WILLETS-PT-BL	SAM	12/06/24 10:30		jignesh	OK
4	P5138-02	002-35TH-AVE(NOV)	SAM	12/06/24 10:30		jignesh	OK
5	P5139-01	001-WILLETS-PT-BL	SAM	12/06/24 10:30		jignesh	OK
6	P5139-02	002-35TH-AVE(DEC)	SAM	12/06/24 10:30		jignesh	OK
7	P5141-02	WATER TREATMENT	SAM	12/06/24 10:30		jignesh	OK
8	P5141-03	P5141-02MS	MS	12/06/24 10:30		jignesh	OK
9	P5141-04	P5141-02MSD	MSD	12/06/24 10:30		jignesh	OK
10	P5146-01	EFFLUENT	SAM	12/06/24 10:30		jignesh	OK
11	P5146-02	P5146-01MS	MS	12/06/24 10:30		jignesh	OK
12	P5146-03	P5146-01MSD	MSD	12/06/24 10:30		jignesh	OK

**Instrument ID:** SPECTROPHOTOMETER-2

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133837**

Review By	Iwona	Review On	12/9/2024 2:49:54 PM
Supervise By	jignesh	Supervise On	12/9/2024 2:55:42 PM
SubDirectory	LB133837	Test	COD
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP110197,WP110200,WP110198,WP110196,WP110658,WP110199,WP110926,WP110925,W3125		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	10/14/24 13:10		Iwona	OK
2	CAL2	CAL2	CAL	10/14/24 13:10		Iwona	OK
3	CAL3	CAL3	CAL	10/14/24 13:11		Iwona	OK
4	CAL4	CAL4	CAL	10/14/24 13:11		Iwona	OK
5	CAL5	CAL5	CAL	10/14/24 13:12		Iwona	OK
6	ICV	ICV	ICV	10/14/24 13:12		Iwona	OK
7	ICB	ICB	ICB	10/14/24 13:13		Iwona	OK
8	CCV1	CCV1	CCV	12/09/24 14:20		Iwona	OK
9	CCB1	CCB1	CCB	12/09/24 14:20		Iwona	OK
10	LB133837BL	LB133837BL	MB	12/09/24 14:21		Iwona	OK
11	LB133837BS	LB133837BS	LCS	12/09/24 14:21		Iwona	OK
12	P5141-01	WATER TREATMENT	SAM	12/09/24 14:22		Iwona	OK
13	P5143-01	DSN002	SAM	12/09/24 14:22		Iwona	OK
14	P5143-01DUP	DSN002DUP	DUP	12/09/24 14:23		Iwona	OK
15	P5143-01MS	DSN002MS	MS	12/09/24 14:23	0.5ml WP110923 + 9.5ml Sample	Iwona	OK
16	P5143-01MSD	DSN002MSD	MSD	12/09/24 14:24	0.5ml WP110923 + 9.5ml Sample	Iwona	OK
17	P5143-03	DSN001	SAM	12/09/24 14:24		Iwona	OK
18	P5143-04	DSN001	SAM	12/09/24 14:25		Iwona	OK

**Instrument ID:** SPECTROPHOTOMETER-2

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133837**

Review By	Iwona	Review On	12/9/2024 2:49:54 PM
Supervise By	jignesh	Supervise On	12/9/2024 2:55:42 PM
SubDirectory	LB133837	Test	COD
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP110197,WP110200,WP110198,WP110196,WP110658,WP110199,WP110926,WP110925,W3125		

19	P5143-05	DSN003	SAM	12/09/24 14:25		Iwona	OK
20	CCV2	CCV2	CCV	12/09/24 14:26		Iwona	OK
21	CCB2	CCB2	CCB	12/09/24 14:26		Iwona	OK
22	P5145-01	286085	SAM	12/09/24 14:26		Iwona	OK
23	CCV3	CCV3	CCV	12/09/24 14:27		Iwona	OK
24	CCB3	CCB3	CCB	12/09/24 14:27		Iwona	OK



**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133838**

Review By	Niha	Review On	12/9/2024 3:58:06 PM
Supervise By	Iwona	Supervise On	12/9/2024 4:07:11 PM
SubDirectory	LB133838	Test	TSS
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB133838BL	LB133838BL	MB	12/09/24 11:00		Niha	OK
2	LB133838BS	LB133838BS	LCS	12/09/24 11:00		Niha	OK
3	P5068-01	14B-1	SAM	12/09/24 11:00		Niha	OK
4	P5068-01DUP	14B-1DUP	DUP	12/09/24 11:00		Niha	OK
5	P5068-02	14B-2	SAM	12/09/24 11:00		Niha	OK
6	P5068-03	14B-3	SAM	12/09/24 11:00		Niha	OK
7	P5068-04	14B-4	SAM	12/09/24 11:00		Niha	OK
8	P5074-02	COMP	SAM	12/09/24 11:00		Niha	OK
9	P5138-01	001-WILLETS-PT-BL	SAM	12/09/24 11:00		Niha	OK
10	P5138-02	002-35TH-AVE(NOV)	SAM	12/09/24 11:00		Niha	OK
11	P5139-01	001-WILLETS-PT-BL	SAM	12/09/24 11:00		Niha	OK
12	P5139-02	002-35TH-AVE(DEC)	SAM	12/09/24 11:00		Niha	OK
13	P5141-01	WATER TREATMENT	SAM	12/09/24 11:00		Niha	OK
14	P5142-01	TOWER-1	SAM	12/09/24 11:00		Niha	OK
15	P5142-03	TOWER-2	SAM	12/09/24 11:00		Niha	OK
16	P5143-01	DSN002	SAM	12/09/24 11:00		Niha	OK
17	P5143-03	DSN001	SAM	12/09/24 11:00		Niha	OK
18	P5143-05	DSN003	SAM	12/09/24 11:00		Niha	OK

**Instrument ID:** WC SC-3

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133838**

Review By	Niha	Review On	12/9/2024 3:58:06 PM
Supervise By	Iwona	Supervise On	12/9/2024 4:07:11 PM
SubDirectory	LB133838	Test	TSS
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

19	P5145-01	286085	SAM	12/09/24 11:00		Niha	OK
20	P5146-01	EFFLUENT	SAM	12/09/24 11:00		Niha	OK
21	P5146-04	AERATION TK 1	SAM	12/09/24 11:00		Niha	OK
22	P5192-02	EFF-WASTE WATER	SAM	12/09/24 11:00		Niha	OK

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133842**

Review By	rubina	Review On	12/10/2024 12:27:41 PM
Supervise By	Iwona	Supervise On	12/10/2024 12:31:39 PM
SubDirectory	LB133842	Test	Ammonia
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP111021		
ICV Standard	WP111023		
CCV Standard	WP111022		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP110715		
Chk Standard	WP110416,WP110019,WP108709,WP108840		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	12/09/24 13:33		rubina	
2	0.1PPM	0.1PPM	CAL2	12/09/24 13:33		rubina	
3	0.2PPM	0.2PPM	CAL3	12/09/24 13:33		rubina	
4	0.4PPM	0.4PPM	CAL4	12/09/24 13:34		rubina	
5	1.0PPM	1.0PPM	CAL5	12/09/24 13:34		rubina	
6	1.3PPM	1.3PPM	CAL6	12/09/24 13:34		rubina	
7	2.0PPM	2.0PPM	CAL7	12/09/24 13:34		rubina	
8	ICV1	ICV1	ICV	12/09/24 14:06		rubina	
9	ICB1	ICB1	ICB	12/09/24 14:06		rubina	
10	CCV1	CCV1	CCV	12/09/24 14:06		rubina	
11	CCB1	CCB1	CCB	12/09/24 14:06		rubina	
12	RL	RL	SAM	12/09/24 14:06		rubina	
13	PB165461BL	PB165461BL	MB	12/09/24 14:06		rubina	
14	PB165461BS	PB165461BS	LCS	12/09/24 14:17		rubina	
15	P5139-01	001-WILLETS-PT-BLV	SAM	12/09/24 14:17		rubina	
16	P5139-01DUP	001-WILLETS-PT-BLV	DUP	12/09/24 14:17		rubina	
17	P5139-01MS	001-WILLETS-PT-BLV	MS	12/09/24 14:17		rubina	
18	P5139-01MSD	001-WILLETS-PT-BLV	MSD	12/09/24 14:17		rubina	

Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133842**

Review By	rubina	Review On	12/10/2024 12:27:41 PM
Supervise By	Iwona	Supervise On	12/10/2024 12:31:39 PM
SubDirectory	LB133842	Test	Ammonia
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP111021		
ICV Standard	WP111023		
CCV Standard	WP111022		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP110715		
Chk Standard	WP110416,WP110019,WP108709,WP108840		

19	P5139-02	002-35TH-AVE(DEC)	SAM	12/09/24 14:17		rubina	
20	P5141-01	WATER TREATMENT	SAM	12/09/24 14:17		rubina	
21	P5145-01	286085	SAM	12/09/24 14:27		rubina	
22	CCV2	CCV2	CCV	12/09/24 14:27		rubina	
23	CCB2	CCB2	CCB	12/09/24 14:27		rubina	
24	P5146-01	EFFLUENT	SAM	12/09/24 14:27		rubina	
25	P5146-05	INFLUENT	SAM	12/09/24 14:27		rubina	
26	CCV3	CCV3	CCV	12/09/24 14:27		rubina	
27	CCB3	CCB3	CCB	12/09/24 14:27		rubina	
28	P5146-01DL	EFFLUENTDL	SAM	12/09/24 14:54		rubina	
29	P5146-05DL	INFLUENTDL	SAM	12/09/24 14:54		rubina	
30	CCV4	CCV4	CCV	12/09/24 14:54		rubina	
31	CCB4	CCB4	CCB	12/09/24 14:54		rubina	

**Instrument ID:** KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133847**

Review By	Niha	Review On	12/10/2024 11:11:44 AM
Supervise By	Iwona	Supervise On	12/10/2024 11:21:11 AM
SubDirectory	LB133847	Test	Cyanide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP111012,WP111013,WP111014,WP111015,WP111016,WP111017,WP111018		
ICV Standard	W3011		
CCV Standard	WP111013		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP109549		
Chk Standard	WP111035,WP1110103,WP111019		

Sr#	SampleID	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	12/09/24 11:10		Niha	
2	5.0PPBCN	5.0PPBCN	CAL2	12/09/24 11:10		Niha	
3	10PPBCN	10PPBCN	CAL3	12/09/24 11:10		Niha	
4	50PPBCN	50PPBCN	CAL4	12/09/24 11:10		Niha	
5	100PPBCN	100PPBCN	CAL5	12/09/24 11:10		Niha	
6	250PPBCN	250PPBCN	CAL6	12/09/24 11:11		Niha	
7	500PPBCN	500PPBCN	CAL7	12/09/24 11:11		Niha	
8	ICV1	ICV1	ICV	12/09/24 12:39		Niha	
9	ICB1	ICB1	ICB	12/09/24 12:39		Niha	
10	CCV1	CCV1	CCV	12/09/24 12:39		Niha	
11	CCB1	CCB1	CCB	12/09/24 12:39		Niha	
12	PB165498BL	PB165498BL	MB	12/09/24 12:39		Niha	
13	PB165498BS	PB165498BS	LCS	12/09/24 12:47		Niha	
14	LOWPB165498	LOWPB165498	SAM	12/09/24 12:47		Niha	
15	HIGHPB165498	HIGHPB165498	SAM	12/09/24 12:47		Niha	
16	P5093-01	LL-001	SAM	12/09/24 12:47		Niha	
17	P5093-02	LL-001-FB-12-4-24	SAM	12/09/24 12:47		Niha	
18	P5093-02DUP	LL-001-FB-12-4-24DUP	DUP	12/09/24 12:47		Niha	

Instrument ID: KONELAB

**Daily Analysis Runlog For Sequence/QC Batch ID # LB133847**

Review By	Niha	Review On	12/10/2024 11:11:44 AM
Supervise By	Iwona	Supervise On	12/10/2024 11:21:11 AM
SubDirectory	LB133847	Test	Cyanide
<b>STD. NAME</b>	<b>STD REF.#</b>		
ICAL Standard	WP111012,WP111013,WP111014,WP111015,WP111016,WP111017,WP111018		
ICV Standard	W3011		
CCV Standard	WP111013		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP109549		
Chk Standard	WP111035,WP1110103,WP111019		

19	P5093-02MS	LL-001-FB-12-4-24MS	MS	12/09/24 12:47		Niha	
20	P5093-02MSD	LL-001-FB-12-4-24MS	MSD	12/09/24 12:47		Niha	
21	P5141-02	WATER TREATMENT	SAM	12/09/24 12:54		Niha	
22	CCV2	CCV2	CCV	12/09/24 12:54		Niha	
23	CCB2	CCB2	CCB	12/09/24 12:54		Niha	
24	PB165499BL	PB165499BL	MB	12/09/24 12:54		Niha	
25	PB165499BS	PB165499BS	LCS	12/09/24 12:54		Niha	
26	P5117-02	TAPIAL2-IDW-SOIL-1	SAM	12/09/24 12:54		Niha	
27	P5117-02DUP	TAPIAL2-IDW-SOIL-1	DUP	12/09/24 12:55		Niha	
28	P5117-02MS	TAPIAL2-IDW-SOIL-1	MS	12/09/24 12:55		Niha	
29	P5117-02MSD	TAPIAL2-IDW-SOIL-1	MSD	12/09/24 12:55		Niha	
30	CCV3	CCV3	CCV	12/09/24 12:58		Niha	
31	CCB3	CCB3	CCB	12/09/24 12:58		Niha	

## Prep Standard - Chemical Standard Summary

**Order ID :** P5141

**Test :** Ammonia,BOD5,COD,Cyanide,Oil and Grease,Residual Chlorine,TSS

**Prepbatch ID :** PB165461,PB165498,

**Sequence ID/Qc Batch ID:** LB133768,LB133770,LB133785,LB133837,LB133838,LB133842,LB133847,

**Standard ID :**

EP2570,WP100827,WP100828,WP108640,WP108660,WP108661,WP108662,WP108708,WP108709,WP108840,WP109549,WP110019,WP110103,WP110149,WP110150,WP110194,WP110196,WP110197,WP110198,WP110199,WP110200,WP110335,WP110386,WP110390,WP110391,WP110416,WP110656,WP110658,WP110714,WP110715,WP110826,WP110899,WP110923,WP110924,WP110925,WP110926,WP110965,WP110966,WP110967,WP110968,WP110969,WP110970,WP110971,WP110972,WP110973,WP110974,WP110975,WP110976,WP111011,WP111012,WP111013,WP111014,WP111015,WP111016,WP111017,WP111018,WP111019,WP111021,WP111022,WP111023,WP111035,WP99896,

**Chemical ID :**

E3551,E3657,M5673,M6069,M6121,W1992,W1993,W2606,W2653,W2654,W2666,W2668,W2700,W2783,W2784,W2845,W2858,W2882,W2898,W2979,W3001,W3011,W3019,W3059,W3101,W3103,W3105,W3109,W3111,W3112,W3113,W3121,W3125,W3130,W3131,W3132,W3133,W3138,W3139,W3143,W3144,W3147,W3149,W3153,W3154,W3155,



<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>
3923	Baked Sodium Sulfate	<a href="#">EP2570</a>	12/02/2024	01/03/2025	Rajesh Parikh	Extraction_SC ALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 12/02/2024
<b><u>FROM</u></b> 4000.00000gram of E3551 = Final Quantity: 4000.000 gram								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
114	hexavalent chromium color reagent	<a href="#">WP100827</a>	02/02/2023	02/09/2023	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  02/02/2023
<u>FROM</u>	0.25000gram of W2979 + 50.00000ml of W2783 = 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>
3456	Cyanide Intermediate Working Std, 5PPM	<a href="#">WP100828</a>	02/02/2023	02/03/2023	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Sohil Jodhani 02/07/2023
<b><u>FROM</u></b> 0.25000ml of W2898 + 49.75000ml of WP99896 = 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>
11	Sodium hydroxide absorbing solution 0.25 N	<a href="#">WP108640</a>	07/05/2024	01/05/2025	Rubina Mughal	WETCHEM_SCALE_4 (WC SC-4)	None	Iwona Zarych 07/08/2024
<b><u>FROM</u></b> 21.00000L of W3112 + 210.00000gram of E3657 = Final Quantity: 21.000 L								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1471	NaOH Solution, 6N	<a href="#">WP108660</a>	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 07/09/2024
<b><u>FROM</u></b> 240.00000gram of W3113 + 760.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1796	NaOH, 0.1N	<a href="#">WP108661</a>	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 07/09/2024
<b><u>FROM</u></b> 4.00000gram of W3113 + 996.00000ml 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>
1571	Sodium hydroxide, 1N	<a href="#">WP108662</a>	07/09/2024	01/09/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  07/11/2024
<b><u>FROM</u></b> 4.00000gram of W3113 + 96.00000ml of W3112 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1494	BORATE BUFFER	<a href="#">WP108708</a>	07/11/2024	01/09/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Mohan Bera  07/17/2024
<b><u>FROM</u></b> 0.90250L of W3112 + 9.50000gram of W2700 + 88.00000ml of WP108661 = Final Quantity: 1.000 L								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
290	Phenol reagent for Ammonia	<a href="#">WP108709</a>	07/11/2024	01/11/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Mohan Bera 07/17/2024
<b><u>FROM</u></b> 3.20000gram of W3113 + 8.30000gram of W2858 + 88.80000ml of W3112 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
635	EDTA BUFFER FOR AMMONIA	<a href="#">WP108840</a>	07/26/2024	01/26/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 07/26/2024
<b><u>FROM</u></b> 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml of W3112 = Final Quantity: 1000.000 ml								

## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3371	Cyanide LCS Spike Solution, 5PPM	<a href="#">WP109549</a>	09/06/2024	01/05/2025	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 09/06/2024

**FROM** 1.00000ml of W3138 + 199.00000ml of WP108640 = 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>
289	Sodium Hypochlorite for Ammonia	<a href="#">WP110019</a>	10/02/2024	01/31/2025	Rubina Mughal	None	None	Iwona Zarych 10/04/2024

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



<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	<a href="#">WP110103</a>	10/08/2024	04/08/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  10/08/2024
<b><u>FROM</u></b> 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>
153	Ammonia Stock Std. (1000 ppm)	<a href="#">WP110149</a>	10/11/2024	04/08/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  10/14/2024
<u>FROM</u>	3.81900gram of W1993 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1895	Ammonia Stock Std, 1000PPM-SS	<a href="#">WP110150</a>	10/11/2024	04/08/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  10/14/2024
<u>FROM</u>	3.81900gram of W1992 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2456	COD Stock std, 1000ppm	<a href="#">WP110194</a>	10/14/2024	10/21/2024	Iwona Zarych	WETCHEM_S CALE_4 (WC SC-4)	None	Jignesh Parikh  10/17/2024
<b><u>FROM</u></b> 0.08500gram of W3111 + 100.00000ml of W3112 = Final Quantity: 100.000 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>
139	COD calibration std. 0 ppm	<a href="#">WP110196</a>	10/14/2024	10/21/2024	Iwona Zarych	None	None	Jignesh Parikh
								10/17/2024

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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
138	COD calibration std. 10 ppm	<a href="#">WP110197</a>	10/14/2024	10/21/2024	Iwona Zarych	None	WETCHEM_FIPETTE_3	Jignesh Parikh
							(WC)	10/17/2024

**FROM** 9.90000ml of W3112 + 0.10000ml of WP110194 = Final Quantity: 10.000 ml



## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
137	COD calibration std. 50 ppm	<a href="#">WP110198</a>	10/14/2024	10/21/2024	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  10/17/2024

**FROM** 9.50000ml of W3112 + 0.50000ml of WP110194 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
136	COD calibration std. 100 ppm	<a href="#">WP110199</a>	10/14/2024	10/21/2024	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh  10/17/2024

**FROM** 9.00000ml of W3112 + 1.00000ml of WP110194 = Final Quantity: 10.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
135	COD calibration std. 150 ppm	<a href="#">WP110200</a>	10/14/2024	10/21/2024	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 10/17/2024
<b><u>FROM</u></b> 8.50000ml of W3112 + 1.50000ml of WP110194 = Final Quantity: 10.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1597	0.04 N H2SO4	<a href="#">WP110335</a>	10/22/2024	04/22/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/22/2024
<b><u>FROM</u></b> 1.00000ml of M5673 + 999.00000ml of W3112 = Final Quantity: 1000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1841	Sulfuric Acid, 1N	<a href="#">WP110386</a>	10/24/2024	04/24/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 10/24/2024
<b><u>FROM</u></b> 2.80000ml of M5673 + 97.20000ml of W3112 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3214	Magnesium Chloride For Cyanide 2.5M(51%W/V)	<a href="#">WP110390</a>	10/24/2024	04/24/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/24/2024
<b><u>FROM</u></b> 500.00000ml of W3112 + 510.00000gram of W3001 = 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>
1714	Sulfuric Acid, 50% (v/v)	<a href="#">WP110391</a>	10/24/2024	04/24/2025	Niha Farheen Shaik	None	None	Iwona Zarych 10/24/2024

**FROM** 1000.00000ml of M5673 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
740	sodium nitroferricyanide for ammonia	<a href="#">WP110416</a>	10/25/2024	04/25/2025	Rubina Mughal	WETCHEM_SCALE_5 (WC SC-5)	None	Iwona Zarych 10/25/2024

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



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2457	COD Stock std-SS, 1000ppm	<a href="#">WP110656</a>	11/11/2024	11/18/2024	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Mohan Bera  11/12/2024
<u>FROM</u>	0.08500gram of W3111 + 100.00000ml of W3112 = Final Quantity: 100.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2459	COD ICV-LCS std, 50ppm	<a href="#">WP110658</a>	11/11/2024	11/18/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Mohan Bera 11/12/2024
<b>FROM</b> 9.50000ml of W3112 + 0.50000ml of WP110656 = Final Quantity: 10.000 ml								

## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1322	Ammonia Intermediate Std, 50PPM	<a href="#">WP110714</a>	11/15/2024	12/15/2024	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych  11/18/2024
<b>FROM</b> 95.00000ml of W3112 + 5.00000ml of WP110149 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1639	Ammonia Intermediate Std-Second source, 50PPM	<a href="#">WP110715</a>	11/15/2024	12/15/2024	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Iwona Zarych  11/18/2024
<b>FROM</b> 95.00000ml of W3112 + 5.00000ml of WP110150 = Final Quantity: 100.000 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>
229	1:1 HCL	<a href="#">WP110826</a>	11/22/2024	05/13/2025	Jignesh Parikh	None	None	Iwona Zarych
								11/22/2024

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

<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>
3850	Cyanide MS-MSD spiking solution, 5PPM	<a href="#">WP110899</a>	12/02/2024	01/05/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3	Jignesh Parikh
							(WC)	12/03/2024

**FROM** 1.00000ml of W3154 + 199.00000ml of WP108640 = 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>
2456	COD Stock std, 1000ppm	<a href="#">WP110923</a>	12/03/2024	12/10/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh 12/03/2024
<u>FROM</u>	0.08500gram of W3111 + 100.00000ml of W3112 = Final Quantity: 100.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2457	COD Stock std-SS, 1000ppm	<a href="#">WP110924</a>	12/03/2024	12/10/2024	Niha Farheen Shaik	WETCHEM_SCALE_5 (WC SC-5)	None	Jignesh Parikh 12/03/2024
<b><u>FROM</u></b> 0.08500gram of W2784 + 100.00000ml of W3112 = Final Quantity: 100.000 ml								





<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2458	COD CCV std, 50ppm	<a href="#">WP110925</a>	12/03/2024	12/10/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 12/03/2024
<b>FROM</b> 9.50000ml of W3112 + 0.50000ml of WP110923 = Final Quantity: 10.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2459	COD ICV-LCS std, 50ppm	<a href="#">WP110926</a>	12/03/2024	12/10/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 12/03/2024
<b><u>FROM</u></b> 9.50000ml of W3112 + 0.50000ml of WP110924 = Final Quantity: 10.000 ml								

## Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3443	Residual chlorine std, Intermediate 10PPM	<a href="#">WP110965</a>	12/05/2024	12/06/2024	Niha Farheen Shaik	None	None	Iwona Zarych  12/06/2024

**FROM** 42.75000ml of W3112 + 7.25000ml of W3130 = 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>
3444	Residual chlorine std, Intermediate-SS 10PPM	<a href="#">WP110966</a>	12/05/2024	12/06/2024	Niha Farheen Shaik	None	None	Iwona Zarych  12/06/2024

**FROM** 42.50000ml of W3112 + 7.50000ml of W3131 = 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>
3710	Chlorine Calibration std, 0.0ppm	<a href="#">WP110967</a>	12/05/2024	12/06/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								12/06/2024

**FROM** 50.00000ml of W3112 = 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>
3707	Chlorine Calibration std, 0.1ppm	<a href="#">WP110968</a>	12/05/2024	12/06/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	12/06/2024

**FROM** 49.50000ml of W3112 + 0.50000ml of WP110965 = 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>
3708	Chlorine Calibration std, 0.2ppm	<a href="#">WP110969</a>	12/05/2024	12/06/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych
<p>(WC)</p> <p><b>FROM</b> 46.00000ml of W3112 + 4.00000ml of WP110965 = Final Quantity: 50.000 ml</p>								

<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>
3709	Chlorine Calibration std, 0.8ppm	<a href="#">WP110970</a>	12/05/2024	12/06/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3	Iwona Zarych
<p><b>FROM</b> 46.00000ml of W3112 + 4.00000ml of WP110965 = Final Quantity: 50.000 ml</p>								

## 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>
3711	Chlorine Calibration std, 1.6ppm	<a href="#">WP110971</a>	12/05/2024	12/07/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								12/06/2024

**FROM** 42.00000ml of W3112 + 8.00000ml of WP110965 = 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>
3799	Residual Chlorine Calibration and CCV std, 0.4PPM	<a href="#">WP110972</a>	12/05/2024	12/06/2024	Niha Farheen Shaik	None	None	Iwona Zarych
								12/06/2024

**FROM** 96.00000ml of W3112 + 4.00000ml of WP110965 = Final Quantity: 100.000 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>
3452	Residual chlorine ICV-LCS, 0.4PPM	<a href="#">WP110973</a>	12/05/2024	12/06/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/06/2024

**FROM** 48.00000ml of W3112 + 2.00000ml of WP110966 = 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>
127	BOD Dilution fluid	<a href="#">WP110974</a>	12/05/2024	12/06/2024	Rubina Mughal	None	None	Iwona Zarych 12/06/2024

**FROM** 18.00000L of W3112 + 3.00000PILLOW of W3144 = Final Quantity: 18.000 L

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
129	Glutamic acid-glucose mix for BOD	<a href="#">WP110975</a>	12/05/2024	12/06/2024	Rubina Mughal	WETCHEM_SCALE_7 (WCS-6)	None	Iwona Zarych 12/06/2024
<b><u>FROM</u></b> 0.15000gram of W2653 + 0.15000gram of W2654 + 1000.00000ml of W3112 = Final Quantity: 1000.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
128	polyseed seed control	<a href="#">WP110976</a>	12/05/2024	12/06/2024	Rubina Mughal	None	None	Iwona Zarych 12/06/2024
<b><u>FROM</u></b> 1.00000PILLOW of W3059 + 300.00000ml of WP110974 = Final Quantity: 300.000 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>
3456	Cyanide Intermediate Working Std, 5PPM	<a href="#">WP111011</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 12/10/2024

**FROM** 0.25000ml of W3154 + 49.75000ml of WP108640 = 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>
4	Calibration standard 500 ppb	<a href="#">WP111012</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/10/2024

**FROM** 45.00000ml of WP108640 + 5.00000ml of WP111011 = 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>
3761	Calibration-CCV CN Standard 250 ppb	<a href="#">WP111013</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/10/2024

**FROM** 2.50000ml of WP111011 + 47.50000ml of WP108640 = 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>
6	Calibration Standard 100 ppb	<a href="#">WP111014</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	None	Glass Pipette-A	Iwona Zarych 12/10/2024

**FROM** 1.00000ml of WP111011 + 49.00000ml of WP108640 = 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	<a href="#">WP111015</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/10/2024
<b><u>FROM</u></b> 0.50000ml of WP111011 + 49.50000ml of WP108640 = 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>
8	Calibration Standard 10 ppb	<a href="#">WP111016</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/10/2024
<u>FROM</u>	1.00000ml of WP111012 + 49.00000ml of WP108640 = 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>
9	Calibration Standard 5 ppb	<a href="#">WP111017</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/10/2024
<u>FROM</u>	0.50000ml of WP111012 + 49.50000ml of WP108640 = 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	<a href="#">WP111018</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	None	None	Iwona Zarych 12/10/2024
<b><u>FROM</u></b> 50.00000ml of WP108640 = 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>
1582	Chloramine T solution, 0.014M	<a href="#">WP111019</a>	12/09/2024	12/10/2024	Niha Farheen Shaik	WETCHEM_S CALE_5 (WC SC-5)	None	Iwona Zarych  12/10/2024
<u>FROM</u>	0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 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>
275	Ammonia Calibration Std. (2 ppm)	<a href="#">WP111021</a>	12/09/2024	12/10/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/10/2024
<b><u>FROM</u></b> 48.00000ml of W3112 + 2.00000ml of WP110714 = Final Quantity: 50.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
285	Ammonia CCV Std. (1 ppm)	<a href="#">WP111022</a>	12/09/2024	12/10/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<b>FROM</b>		49.00000ml of W3112 + 1.00000ml of WP110714 = Final Quantity: 50.000 ml						

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
286	Ammonia ICV Std. (1 ppm)	<a href="#">WP111023</a>	12/09/2024	12/10/2024	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 12/10/2024
<b><u>FROM</u></b> 49.00000ml of W3112 + 1.00000ml of WP110715 = 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>
607	PYRIDINE-BARBITURIC ACID	<a href="#">WP111035</a>	12/09/2024	04/30/2025	Niha Farheen Shaik	WETCHEM_SCALE_5 (WCS)	Glass Pipette-A	Iwona Zarych 12/10/2024
<u>FROM</u>	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	<a href="#">WP99896</a>	11/15/2022	05/15/2023	Jignesh Parikh	WETCHEM_SCALE_4 (WCS-4)	None	Iwona Zarych 11/15/2022
<b><u>FROM</u></b>	21.00000L of W2606 + 210.00000gram of W2845 = Final Quantity: 21.000 L							

## CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4	23B1556310	12/31/2025	12/04/2023 / Rajesh	12/01/2023 / Rajesh	E3657

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140440 / TEST PAPERS,PH,0-2.5,.2SENSI, 100PK	80A0441	02/29/2028	09/03/2024 / jignesh	08/19/2024 / Jaswal	M6069

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	WL13B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1992

## CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0660-1 / AMMONIUM CHLORIDE, ACS, 500G	XE09B	04/08/2025	04/08/2015 / apatel	04/08/2015 / apatel	W1993

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AC156212500 / GLUTAMIC ACID BIOCHEM REG, 250G	A0405990	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2653

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	D16-500 / DEXTROSE ANHYDROUS ACS REAGENT, 500G(New)	186122A	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2654

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

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



## CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	0000263246	06/17/2023	12/23/2020 / ketankumar	12/23/2020 / ketankumar	W2783

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-7 / Sodium Hydroxide Pellets 12 Kg	21C2456604	01/31/2024	03/30/2022 / JIGNESH	06/24/2021 / apatel	W2845

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

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

## CHEMICAL RECEIPT LOG BOOK

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	01237-10KG / Magnesium Chloride Hexahydrate ACS 10KG	002251-03319	06/06/2027	01/23/2023 / lwona	06/06/2022 / lwona	W3001

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	/ ICV-CN	ICV6-400	12/31/2024	01/03/2024 / lwona	02/20/2020 / lwona	W3011

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	136742-80 / POLYSEED	152305	05/30/2025	02/15/2024 / Rubina	10/18/2023 / lwona	W3059

## CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	470112-662 / TEST STRIPES, NITRATE/NITRITE, PK50	402403	04/30/2026	05/02/2024 / lwona	04/10/2024 / lwona	W3101

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	4620-32 / MANGANOUS SULFATE SOLUTION-364	2403J02	03/31/2026	04/22/2024 / lwona	04/22/2024 / lwona	W3103

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 / lwona	04/22/2024 / lwona	W3105

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AL04100-4 / Alkaline Iodide Azide, 1 L	1405D67	04/30/2026	05/23/2024 / lwona	05/23/2024 / lwona	W3109

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24A1956910	01/18/2025	06/26/2024 / lwona	06/26/2024 / lwona	W3111

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

## CHEMICAL RECEIPT LOG BOOK

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.	140444 / TEST PAPERS,PH 0-14,.5 SENSI,100PK	HC446507	07/25/2029	07/25/2024 / lwona	07/25/2024 / lwona	W3121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Environmental Express LTD	B1010 / COD Digestion Vials Low Level 0-150Mg/L	13798	09/30/2027	12/06/2024 / lwona	07/25/2024 / lwona	W3125

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	14268-10 / Chlorine Std, Pk of 16	A4144	01/31/2026	07/25/2024 / lwona	07/25/2024 / lwona	W3130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	14268-10 / Chlorine Std, Pk of 16	A4166	02/28/2026	07/25/2024 / lwona	07/25/2024 / lwona	W3131

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

## CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	44080060	01/30/2025	09/06/2024 / Iwona	08/28/2024 / Iwona	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 / Iwona	09/09/2024 / Iwona	W3139

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J9416-1 / Sodium Hypochlorite 500 ml	2407F34	01/31/2025	09/30/2024 / Iwona	09/30/2024 / Iwona	W3143

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	1486266 / BOD Nutrient Buffer Pillows, 6 mL concentrate to make 6 L, 50/pk	A4169	06/30/2029	11/20/2024 / rubina	10/01/2024 / Iwona	W3144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
HACH	14064-99 / Total Chlorine Powder Pillows	A4230	08/31/2029	10/01/2024 / Iwona	10/01/2024 / Iwona	W3147

## CHEMICAL RECEIPT LOG BOOK

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

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

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 / lwona	12/02/2024 / lwona	W3154

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	140730 / TEST PAPER,POT.IOD-STRCH,P K100,CS12	14-860	12/02/2029	12/02/2024 / lwona	12/02/2024 / lwona	W3155

# Certificate of Analysis



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

**Product:** Ammonium Chloride GR ACS

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

**Grade:** Meets ACS Specifications

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

**Country of Origin:** India

**FW:** 53.49

**Lot No.:** WL13B



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

Joe Schoellkopff

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Quality Control Manager

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# Certificate of Analysis



**Date of Release:** 5/12/2014

**Product:** Ammonium Chloride GR ACS

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

**Grade:** Meets ACS Specifications

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

**Country of Origin:** India

**FW:** 53.49

**Lot No.:** XE09B



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

Joe Schoellkopf

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Quality Control Manager

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# Certificate of Analysis

1.19533.0500 Cyanide standard solution traceable to SRM from NIST  $K_2[Zn(CN)_4]$  in  $H_2O$   
1000 mg/l CN Certipur®  
Batch HC03107133

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## Batch Values

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Concentration	$\beta$ (CN <sup>-</sup> )	1002	mg/l
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Determination method: Argentometric titration.

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

Date of release (DD.MM.YYYY) 02.07.2020

Minimum shelf life (DD.MM.YYYY) 30.06.2023

Ayfer Yildirim

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Responsible laboratory manager quality control

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Acetone  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis



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

## Certificate of Analysis

Test	Specification	Result
Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water)	>= 99.4 %	99.7
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0000 ppm	0.1000
Substances Reducing Permanganate	Passes Test	PT
Titration Acid (µeq/g)	<= 0.3	0.1
Titration Base (µeq/g)	<= 0.6	< 0.1
Water (H <sub>2</sub> O)	<= 0.5 %	0.3
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	5

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

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

  
Jamie Ethier  
Vice President Global Quality

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

W2858 Received by AP on 07/07/2021

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

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

Retest date: January 7, 2026

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W2666 Recived on 02/10/2020 by AP

Product No.: 87683

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

Lot No.: W12F013

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

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**ACROS ORGANICS** part of Thermo Fisher Scientific



**Version** 0

**Molecular weight** 147.13

**Molecular formula** C5 H9 N O4

**CAS No** 56-86-0

**Linear formula** HO2CCH2CH2CH(NH2)CO2H

**Flash point (°C)**

## Certificate of Analysis

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<b>Catalog Number</b>	15621	<b>Quality Test / Release Date</b>	13 March 2019
<b>Lot Number</b>	A0405990	<b>Suggested Retest Date</b>	March 2022
<b>Description</b>	L(+)-Glutamic acid, 99%		
<b>Country of Origin</b>	CHINA		
<b>Declaration of Origin</b>	plant		

<b>Origin Comment</b>	The product is made by fermentation of sugar molasses
-----------------------	---

Result Name	Specifications	Test Value
Appearance (Color)	White	White
Appearance (Form)	Powder	Powder
Infrared spectrum	Conforms	Conforms
Titration with NaOH	98.5 to 100.5 % (On dried substance)	99.32 % (On dried substance)
Loss on drying	≤0.5 % (105°C, 3 hrs)	0.002 % (105°C, 3 hrs)
Heavy metals (as Pb)	≤10 ppm	≤10 ppm
Sulfated ash	≤0.1 %	0.08 %
Other amino acids	not detectable	not detectable
Specific optical rotation	+30.5° to +32.5° (20°C, 589 nm) (on dried substance)	+32° (20°C, 589 nm) (on dried substance)
Specific optical rotation	(c=10, 2N HCl)	(c=10, 2N HCl)
Chloride (Cl)	≤200 ppm	≤200 ppm
Iron (Fe)	≤30 ppm	≤10 ppm
Sulfate (SO4)	≤300 ppm	≤200 ppm
Ammonium (NH4)	≤200 ppm	≤200 ppm
Arsenic oxide (As2O3)	≤1 ppm	≤1 ppm



A handwritten signature in black ink, which appears to read "L. Van den Broek".

L. Van den Broek, QA Manager

Issued: 24 January 2020

Acros Organics

ENA23, zone 1, nr 1350, Janssen Pharmaceuticaaan 3a, B-2440 Geel, Belgium

Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: <http://www.acros.com>

1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

W2918  
W3001  
rec. 06/06/22  
exp. 06/06/27

---

## *Chem-Impex International, Inc.*

---

**Tel:** (630) 766-2112  
**E-mail:** [sales@chemimpex.com](mailto:sales@chemimpex.com)  
**Shipping and Correspondence:**  
935 Dillon Drive  
Wood Dale, IL 60191

**Fax:** (630) 766-2218  
**Web site:** [www.chemimpex.com](http://www.chemimpex.com)  
**Manufacturing site:**  
825 Dillon Drive  
Wood Dale, IL 60191

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### *Certificate of Analysis*

<b>Catalogue Number</b>	01237
<b>Product</b>	<b>Magnesium chloride hexahydrate</b>
<b>Lot Number</b>	002251-03319 Magnesium chloride•6H <sub>2</sub> O
<b>CAS Number</b>	7791-18-6
<b>Molecular Formula</b>	MgCl <sub>2</sub> •6H <sub>2</sub> O
<b>Molecular Weight</b>	203.3

---

<b>Appearance</b>	Colorless crystals, very deliquescent
<b>Heavy Metals</b>	< 5 ppm
<b>Anion</b>	Nitrate : < 0.001% Phosphate : < 5 ppm Sulfate : < 0.002%
<b>Cation</b>	Ammonium : < 0.002% Barium : < 0.005% Calcium : 0.0006% Iron : < 5 ppm Manganese : 1.8 ppm Potassium : 0.0006% Sodium : 0.0008% Strontium : 0.0015%
<b>Insoluble material</b>	0.0025%
<b>Assay by titration</b>	100.29%
<b>Grade</b>	ACS reagent
<b>Storage</b>	Store at RT
<b>Country of Origin</b>	India

## ***Certificate of Analysis***

**Catalog Number: 01237**

**Lot Number: 002251-03319**

---

**Remarks**

See material safety data sheet for additional information

For laboratory use only

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



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



W3019  
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: [www.sigmaaldrich.com](http://www.sigmaaldrich.com)Email USA: [techserv@sial.com](mailto:techserv@sial.com)Outside USA: [eurtechserv@sial.com](mailto: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:

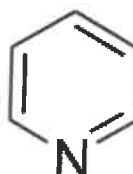
C<sub>5</sub>H<sub>5</sub>N

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](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.





## CERTIFICATE OF ANALYSIS

PO BOX 130549 Spring, TX 77393  
Phone: (281) 298-9410 Fax: (281) 298-9411

W 3059  
REC. 10/18/23 12

**FINISHED PRODUCT, LOT NUMBER, MFG. /EXP DATE:**

PolySeed® • Part No. P-110 • Lot 152305 • Mfg. Date: 05/2023 • Exp. Date: 05/2025

**FORMULATION:**

The formulation for this product contains a range of naturally occurring microorganisms, which are known to be non-pathogenic to man or animals.

**VIABLE COUNT, FINAL TEST RESULT:**

The product has been fully tested in accordance with Finished Product Specifications and contains a minimum viable count of  $4.00 \times 10^9$  cfu/g.

**GLUCOSE/GLUTAMIC-ACID RESULTS:**

Tested results within acceptable range  $198 \pm 30.5$  mg/L (167.5 - 228.5 mg/L). GGA Lot# L257-09 – Average Test Result: 203.4

See [www.polyseed.com](http://www.polyseed.com) for details.

**SEED CONTROL FACTOR:**

Tested results within acceptable range 0.6 – 1.0 see [www.polyseed.com](http://www.polyseed.com) for details

**SALMONELLA TEST RESULT:**

The product has been shown to be Salmonella negative using procedures recommended in the Microbiology Laboratory Guidebook, published by the USDA Food Safety and Inspection Service.

The purpose of this document is to assure that the Finished Product conforms to the above specification.

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

*Quality Control Department*

Date: 05/15/2023

POLYSEED.Ref.1.19

Revised Jan 23

**InterLab®**  
International Laboratory Supply



# Certificate Of Analysis



Date of Release: 11/14/2019

W2700 Recived by AP on 3/11/2020

Name: **Sodium Borate, Decahydrate**  
ACS

Item No: **SX0355 All Sizes**

Lot / Batch No: **2019111354**

Country of Origin: **India**

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

Joe Schoellkopf

-----  
Quality Control Manager

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

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation

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

Form number: 00005624CA, Rev. 2.0



## Certificate of Analysis

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

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

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Catalog Number	D16	Quality Test / Release Date	03/19/2019
Lot Number	186122A		
Description	DEXTROSE, ANHYDROUS, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Mar/2022
Chemical Origin	Organic - Plant		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White, granular powder
TITRATABLE ACID	MEQ/G	<= 0.002	<0.002
STARCH		= PASS TEST	pass test
SPECIFIC ROTATION @ 25 C	DEGREES (+ OR -)	Inclusive Between +52.5 - +53.0	53.0
SULFATE & SULFITE	%	<= 0.005	<0.005
IRON (Fe)	ppm	<= 5	<5
CHLORIDE	%	<= 0.01	<0.01
IGNITION RESIDUE	%	<= 0.02	<0.02
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
HEAVY METALS (as Pb)	ppm	<= 5	<5
LOSS ON DRYING @ 105 C	%	<= 0.2	<0.2
INSOLUBLE MATTER	%	<= 0.005	0.002

*Jerisa Bailey-Wyche*

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

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

\*Based on suggested storage condition.

Certificate of Analysis

**ThermoFisher**  
SCIENTIFIC

## Certificate of Analysis

1 Reagent Lane

Fair Lawn, NJ 07410

201.796.7100 tel

201.796.1329 fax

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

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Catalog Number	P243	Quality Test / Release Date	06/19/2020
Lot Number	201089		
Description	POTASSIUM HYDROGEN PHTHALATE, ACIDIMETRIC STANDARD, A.C.S.		
Country of Origin	Spain	Suggested Retest Date	Jun/2025
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

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



Julian Burton - Quality Control Manager – Fair Lawn

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

\*Based on suggested storage condition.



**PRODUCTOS  
QUÍMICOS  
MONTERREY, S.A. DE C.V.**

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

## CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na <sub>2</sub> SO <sub>4</sub>
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na <sub>2</sub> SO <sub>4</sub> )	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO <sub>4</sub> )	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

### COMMENTS

QC: PhC Irma Belmares

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

Recd. by R3 on 7/24/23 E 3551

RC-02-01, Ed. 3



# Certificate of Analysis

## Sodium Hydroxide (Pellets)

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

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

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

**Storage:** Room Temperature

Pellets

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	$\leq 0.005 \%$	$< 0.005 \%$	PASS
Chloride	$\leq 0.005 \%$	0.002 %	PASS
Heavy Metals	$\leq 0.002 \%$	$< 0.002 \%$	PASS
Iron	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Magnesium	$\leq 0.002 \%$	$< 0.002 \%$	PASS
Mercury	$\leq 0.1 \text{ ppm}$	$< 0.1 \text{ ppm}$	PASS
Nickel	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Nitrogen Compounds	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Phosphate	$\leq 0.001 \%$	$< 0.001 \%$	PASS
Potassium	$\leq 0.02 \%$	$< 0.02 \%$	PASS
Purity	$\geq 97.0 \%$	99.2 %	PASS
Sodium Carbonate	$\leq 1.0 \%$	0.5 %	PASS
Sulfate	$\leq 0.003 \%$	$< 0.003 \%$	PASS

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

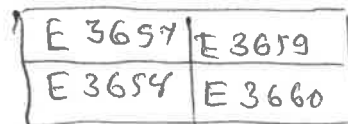
This document has been electronically produced and is valid without a signature.

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.





R: 02/20/20  
53

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

For ICP-MS use: dilute the ICV1 concentrate 50-fold with 1% (v/v) nitric acid; pipet 2 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

**ICV5-0415**

For the cold vapor analysis of mercury by AA: dilute the ICV5 concentrate 100-fold with 2% (v/v) nitric acid; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v)  $K_2Cr_2O_7$  and 5% (v/v) nitric acid.

**ICV6-0400**

For the analysis of cyanide: dilute the ICV6 concentrate 100-fold with Type II water; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from  $K_3Fe(CN)_6$ , Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

**NOTE:** USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

**(D) CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS**

ICV1-1014		
Element	Concentration (µg/L) (after 10-fold dilution)	Concentration (µg/L) (after 50-fold dilution)
Al	2520	504
Sb	1010	202
As	997	199
Ba	518	104
Be	514	103
Cd	514	103
Ca	10000	2000
Cr	517	103
Co	521	104
Cu	505	101
Fe	10100	2020
Pb	1030	206
Mg	5990	1198
Mn	524	105
Ni	525	105
K	9940	1988
Se	1030	206
Ag	252	50
Na	10100	2020
Tl	1040	208
V	504	101
Zn	1010	202

ICV5-0415		ICV6-0400	
Element	Concentration (µg/L) (after 100-fold dilution)	Analyte	Concentration (µg/L) (after 100-fold dilution)
Hg	4.0	CN <sup>-</sup>	99

W3011  
W3012  
W3013  
W3014  
W3015



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

 **avantor™**



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

## Certificate of Analysis

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

>>> Continued on page 2 >>>

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



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

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

For Laboratory, Research, or Manufacturing Use

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

  
Jamie Ethier  
Vice President Global Quality



## Certificate of Analysis

### Product information

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

### Confirmation

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

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



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 <sub>2</sub> )	<= 0.5 ppm	< 0.5
Phosphate (PO <sub>4</sub> )	<= 0.05 ppm	< 0.03
Sulfate (SO <sub>4</sub> )	<= 0.5 ppm	< 0.3
Sulfite (SO <sub>3</sub> )	<= 0.8 ppm	0.3
Ammonium (NH <sub>4</sub> )	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

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

Avantor Performance Materials, LLC

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

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

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

For Laboratory, Research or Manufacturing Use

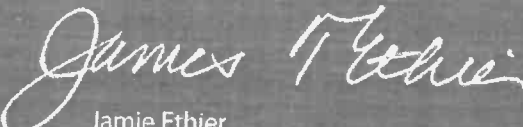
Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

Country of Origin: US

Packaging Site: Phillipsburg Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality

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

Avantor Performance Materials, LLC

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



# 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	$\leq 0.01$ %	$< 0.01$
Chloride (Cl)	$\leq 5$ ppm	$< 5$
ACS – Sulfate ( $\text{SO}_4$ )	$\leq 0.003$ %	$< 0.003$
Calcium (Ca)	$\leq 0.005$ %	$< 0.005$
Potassium (K)	$\leq 0.01$ %	$< 0.01$
Heavy Metals (as Pb)	$\leq 0.001$ %	$< 0.001$
Trace Impurities – Iron (Fe)	$\leq 0.001$ %	$< 0.001$

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

W 2979

Rec: 12/09/22

exp. 12/09/27

Product Name:

1,5-Diphenylcarbazide - ACS reagent

Product Number:

259225

Batch Number:

MKCR6636

Brand:

SIAL

CAS Number:

140-22-7

MDL Number:

MFCD00003013

Formula:

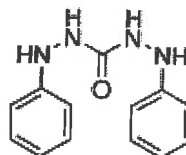
C<sub>13</sub>H<sub>14</sub>N<sub>4</sub>O

Formula Weight:

242.28 g/mol


Quality Release Date:

02 JUN 2022



## Certificate of Analysis

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



Larry Coers, Director  
Quality Control  
Milwaukee, WI US

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







# Certificate of Analysis

**Manganous Sulfate Solution, 364 g/L****Lot Number:** 2403J02**Product Number:** 4620**Manufacture Date:** MAR 15, 2024**Expiration Date:** MAR 2026

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Manganous Sulfate Monohydrate	10034-96-5	Reagent
Sulfuric Acid	7664-93-9	ACS

Test	Specification	Result
Appearance	Pink liquid	Passed
Assay (by Refractive Index)	360-368 g/L	367 g/L

Specification	Reference
Manganous Sulfate Solution	ASTM (D 888 A)
Manganous Sulfate Solution	ASTM (D 888 A)
Manganous Sulfate Solution	APHA (4500-O E)
Manganous Sulfate Solution	APHA (4500-O F)
Manganous Sulfate Solution	APHA (4500-O D)
Manganous Sulfate Solution	APHA (4500-O E)
Manganous Sulfate Solution	APHA (4500-O F)
Manganous Sulfate Solution	APHA (4500-O D)
Manganous Sulfate Solution	APHA (4500-O C)
Manganous Sulfate Solution	APHA (4500-O C)
Manganous Sulfate Solution	EPA (360.2)
Manganous Sulfate Solution	EPA (360.2)

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)
4620-32	1 L natural poly	24 months

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



Jose Pena (03/15/2024)

Operations 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

## 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

## Alkaline-Iodide-Azide, Pomeroy Formulation for Dissolved Oxygen (DO) Analysis

**Lot Number:** 1405D67

**Product Number:** 535

**Manufacture Date:** APR 05, 2024

**Expiration Date:** APR 2026

This solution is intended for use with samples with high Dissolved Oxygen content (above 15 mg/L) and for samples with high concentrations of organic material.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Iodide	7681-82-5	ACS
Sodium Hydroxide	1310-73-2	ACS
Sodium Azide	26628-22-8	Reagent

Test	Specification	Result
Appearance	Colorless liquid	Passed
Free Iodine	To Pass Test	Passed

Specification	Reference
Alkaline Iodide-Sodium Azide Solution II	ASTM (D 888 A)
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)
535-32	1 L natural poly	24 months

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



Heidi J Green (04/05/2024)  
Operations Manager

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## POTASSIUM HYDROGEN PHTHALATE

**Material:** N983  
**Grade:** ACS GRADE  
**Batch Number:** 24A1956910

Chemical Formula: HOCC6H4COOK  
Molecular Weight: 204.22  
CAS #: 877-24-7  
Appearance:

Manufacture Date: 01/19/2022  
Reassay Date: 01/18/2025

Storage: Room Temperature

White crystals.

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Assay (dried basis)	99.95 - 100.05 %	99.97 %	PASS
Chlorine Compounds	<= 0.003 %	<0.003 %	PASS
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm	PASS
Insoluble Matter	<= 0.005 %	0.003 %	PASS
Iron	<= 5 ppm	<5 ppm	PASS
pH (0.05M, Water) @25C	4.00 - 4.02	4.00	PASS
Sodium	<= 0.005 %	<0.005 %	PASS
Sulfur Compounds	<= 0.002 %	<0.002 %	PASS

Spec Set: N983ACS

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

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

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

### Additional Information

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

Product meets analytical specifications of the grades listed.



# Certificate of Analysis



## Sodium Hydroxide (Pellets)

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

Chemical Formula: NaOH  
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.



W 3122 . fee. 7/25/24  
W 3123 12  
W 3124  
W 3125 Exp. 9/30/27  
W 3126

**ENVIRONMENTAL EXPRESS**  
Charleston, SC USA  
[www.envexp.com](http://www.envexp.com)  
(800) 343-5319

October 20, 2022

**CERTIFICATE OF ANALYSIS**

Environmental Express certifies that the following COD Reagent Vials have been rigorously checked against NIST Traceable standards and also compared for conformance to another major brand name product. Environmental Express COD Vial performance is evaluated using bench top spectrophotometers. Acceptance guidelines are strict and ensure dependable, quality results.

Environmental Express further certifies that the COD products listed below are recognized by the United States Environmental Protection Agency (USEPA) as equivalent to an approved Water Pollutant Testing Procedure for COD (Federal Register, Vol. 45, No. 78, Monday, April 20<sup>th</sup>, 1980, page 26811) and as such can be used for National Pollution Discharge Elimination System (NPDES) reporting.

<u>Cat. No.</u>	<u>Lot No.</u>	<u>Product Description</u>
B1010	13798	COD Reagent Vials, 0 - 150 ppm



An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

## *Certificate of Analysis*

**PRODUCT:** Chlorine Solution Ampule 50-75 mg/l

**PRODUCT NUMBER:** 1426810

**LOT NUMBER:** A4144

**MANUFACTURE DATE:** 05/28/2024

**DATE OF ANALYSIS:** 05/30/2024

---

TEST	SPECIFICATIONS	RESULTS
Standard Deviation for the ampules sampled	0 to 0.4 mg/L	0.10 mg/L
Mean Chlorine Concentration ampules sampled.	50 to 75 mg/L	60.9 mg/L

The expiration date is Jan 2026

Certified by: *Scott Als*

Analytical Services Chemist



An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

## *Certificate of Analysis*

**PRODUCT:** Chlorine Solution Ampule 50-75 mg/l

**PRODUCT NUMBER:** 1426810

**LOT NUMBER:** A4166

**MANUFACTURE DATE:** 06/24/2024

**DATE OF ANALYSIS:** 06/25/2024

---

TEST	SPECIFICATIONS	RESULTS
Standard Deviation for the ampules sampled	0 to 0.4 mg/L	0.10 mg/L
Mean Chlorine Concentration ampules sampled.	50 to 75 mg/L	61.9 mg/L

The expiration date is Feb 2026

Certified by: *Scott Als*

Analytical Services Chemist

Item Number	ED150	Lot Number	2ND0156
Item	Edetate Disodium, Dihydrate, USP	CAS Number	6381-92-6
Molecular Formula	$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$	Molecular Weight	372.24

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

Certificate of Analysis Results Entered By:

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

Certificate of Analysis Results Approved By:

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

Spectrum Chemical Mfg Corp  
755 Jersey Avenue  
New Brunswick 08901 NJ



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

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

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



Part of TCP Analytical Group

Jackson's Pointe Commerce Park- Building 1000  
1010 Jackson's Pointe Court, Zelienople, PA 16063

## 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](http://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*

Michael Monteleone  
Chemistry Supervisor - Quality Control

ISO9001:2015 Registration #0306-01

2024080113:32:16bsturges-0-0

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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Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

# Certificate of Analysis

## Sodium Hypochlorite Solution, 5% available Chlorine

**Lot Number:** 2407F34**Product Number:** 7495.5**Manufacture Date:** JUL 12, 2024**Expiration Date:** JAN 2025

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

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

Test	Specification	Result	NIST SRM#
Appearance	Colorless to greenish-yellow liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	4.75-5.25 % (w/w) Cl <sub>2</sub>	5.05 % (w/w) Cl <sub>2</sub>	136

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

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

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

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

Jose Pena (07/12/2024)  
Operations Manager

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An ISO 9001 Certified Company

Loveland, CO 80539

(970) 669-3050

## *Certificate of Analysis*

*This is a Component of 1486266 / LOT A4169*

**PRODUCT:** BOD Nutrient Buffer Pillows

**PRODUCT NUMBER:** 1486227

**LOT NUMBER:** A4169

**MANUFACTURE DATE:** 06/24/2024

**DATE OF ANALYSIS:** 07/03/2024

TEST	SPECIFICATIONS	RESULTS
Calcium Concentration of a diluted pillow	0.93 to 1.29 ppm	0.960 ppm
Magnesium Concentration of a diluted pillow	0.35 to 0.48 ppm	0.390 ppm
pH in a 6 L of DI water	7.1 to 7.6	7.37
Ammonia Concentration of a diluted pillow	0.57 to 0.79 ppm	0.593 ppm
Iron Concentration of a diluted pillow	0.27 to 0.36 ppm	0.311 ppm
Sterility	To Pass	Passed
Phosphorus Concentration of a diluted pillow	7.6 to 10.3 ppm	8.32 ppm
Five Day Change in Dissolved Oxygen Concentration	-0.2 to 0.2 ppm	0.03 ppm

The expiration date is Jun 2029

Certified by: *Scott Als*

Analytical Services Chemist



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Loveland, CO 80539

(970) 669-3050

## Certificate of Analysis

**PRODUCT:** DPD Total Chlorine Reagent

**PRODUCT NUMBER:** 1406499

**LOT NUMBER:** A4230

**MANUFACTURE DATE:** 08/27/2024

**DATE OF ANALYSIS:** 08/28/2024

TEST	SPECIFICATIONS	RESULTS
Percent Recovery for a 2.5 ppm Standard. Chlorine concentration determined using DPD compared to the actual concentration.	93 to 107 %	95.7 %
pH of reagent in 50 mL of DI water.	6.2 to 6.5	6.40
Percent Recovery for a 5.0 ppm Standard. Chlorine concentration determined using DPD compared to the actual concentration.	93 to 107 %	96.2 %
Hardness Blank: 1000 ppm as Calcium Carbonate Hardness standard vs DI water measured at 530 nm in 1 cm cells.	0 to 0.009 abs	0.0020 abs

The expiration date is Aug 2029

Certified by: *Scott Als*

Analytical Services Chemist



# 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)

A handwritten signature in blue ink that reads "Paul Brandon". The signature is fluid and cursive, with the first name "Paul" and last name "Brandon" clearly distinguishable.

Paul Brandon (08/28/2024)  
Production Manager

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



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

WJ3153  
SB  
0844e. 11/25/2024  
SB

## Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	$\leq 5$	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	$\leq 10$	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	$\leq 5$	1
Assay (Total Saturated C <sub>6</sub> Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	98 %
Color (APHA)	$\leq 10$	5
Residue after Evaporation	$\leq 1.0$ ppm	0.1 ppm
Substances Darkened by H <sub>2</sub> SO <sub>4</sub>	Passes Test	Passes Test
Water (by KF, coulometric)	$\leq 0.05 \%$	< 0.01 %

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

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

Jamie Croak  
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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



# Certificate of Analysis

## Cyanide Standard, 1000 ppm CN<sup>-</sup>

**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

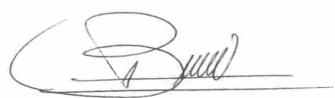
Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN <sup>-</sup> )	995-1005 ppm	1000 ppm

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 <sup>-</sup> )	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 <sup>-</sup> )	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)

A handwritten signature in black ink, appearing to read 'Luis Briceno', is written over a horizontal line.

Luis Briceno (11/22/2024)  
Operations Supervisor

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# SHIPPING DOCUMENTS



## CLIENT INFORMATION

## REPORT TO BE SENT TO:

COMPANY: Verina Consulting Group

ADDRESS: 1011 US-22, Suite 302

CITY Bridgewater STATE: NJ ZIP: 08807

ATTENTION: Michael Valenzi

PHONE: 908-864-4400 FAX: 908-864-4401

## CLIENT PROJECT INFORMATION

PROJECT NAME: Rotary Club

PROJECT NO.: 5183.0001

LOCATION: NJ

PROJECT MANAGER: Michael Valenzi

e-mail: mvalenzi@vcg-llc.com

PHONE: 908-864-4400 FAX: 908-864-4401

## CLIENT BILLING INFORMATION

BILL TO: SEE LEFT

PO#: 5183.0001

ADDRESS:

CITY

STATE:

ZIP:

ATTENTION:

PHONE:

## ANALYSIS

## DATA TURNAROUND INFORMATION

FAX (RUSH) 5 DAYS\*

HARDCOPY (DATA PACKAGE): 5 DAYS\*

EDD: 5 DAYS\*

\*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS 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 2 3 4 5 6 7 8 9

2n, Cu, Ni, Cr, Cd, Pb, Ag  
TSS  
BOD  
COD  
Chlorine Demand  
Ammonia  
SGT-HEU  
Total Cyanide

## PRESERVATIVES

## COMMENTS

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		B	E	E	C	E	C	C	D		
1.	Water Treatment Discharge	WW	X		12/5/24	10:40	6	X	X	X	X	X	X				
2.	Water Treatment Discharge	WW		X	12/5/24	10:43	4								X	X	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP
1. <i>Linu Valin</i>	12/5/24 11:28	<i>[Signature]</i> 12-5-24	Comments: PH = 9.67 Flow Rate = 52 Temperature = 71.6 Semi annual metals = Zn, Cu, Ni, Cr, Cd, Pb, Ag (Group 5)
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
2. <i>[Signature]</i>			
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
3. <i>[Signature]</i>	12-5-24		

Page 1 of 1

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



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

### 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