

DATA REPORTING QUALIFIERS- INORGANIC

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

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

LAB CHRONICLE

OrderID:	Q3772	OrderDate:	12/3/2025 2:49:00 PM
Client:	Holland Manufacturing Co.	Project:	Pre Treatment Plant 2025
Contact:	Todd Holland	Location:	A11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3772-01	EFFLUENT	WATER			12/03/25 11:30			12/03/25
			Ammonia	SM4500-NH3		12/04/25	12/05/25 11:29	
			BOD5	SM5210 B			12/04/25 11:25	
			Oil and Grease	1664A			12/08/25 12:37	
			Phosphorus-Ortho	SM4500-P E			12/05/25 11:02	
			Phosphorus-Total	365.3		12/05/25	12/05/25 13:48	
			TSS	SM2540 D			12/04/25 16:00	
Q3772-01DL	EFFLUENTDL	WATER			12/03/25 11:30			12/03/25
			Ammonia	SM4500-NH3		12/04/25	12/05/25 12:10	
Q3772-04	AERATION	WATER			12/03/25 11:30			12/03/25
			TSS	SM2540 D			12/04/25 16:00	
Q3772-05	INFLUENT	WATER			12/03/25 11:30			12/03/25
			Ammonia	SM4500-NH3		12/04/25	12/05/25 11:40	
			BOD5	SM5210 B			12/04/25 11:25	

LAB CHRONICLE

Q3772-05DL

INFLUENTDL

WATER

12/03/25
11:30

12/03/25

Ammonia

SM4500-NH3

12/04/25

12/05/25
12:10



SAMPLE DATA

Report of Analysis

Client: Holland Manufacturing Co.
Project: Pre Treatment Plant 2025
Client Sample ID: EFFLUENT
Lab Sample ID: Q3772-01

Date Collected: 12/03/25 11:30
Date Received: 12/03/25
SDG No.: Q3772
Matrix: WATER
% Solid: 0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	491	OR	1	1.50	5.00	mg/L	12/04/25 14:00	12/05/25 11:29	SM 4500-NH3 B plus G-21
BOD5	7110		1	0.20	2.00	mg/L		12/04/25 11:25	SM 5210 B-16
Oil and Grease	10.2		1	0.29	5.00	mg/L		12/08/25 12:37	1664A
Orthophosphate as P	0.047	J	1	0.0040	0.050	mg/L		12/05/25 11:02	SM 4500-P E-21
Phosphorus, Total	0.067		1	0.0050	0.050	mg/L	12/05/25 10:45	12/05/25 13:48	365.3
TSS	1330		1	1.00	4.00	mg/L		12/04/25 16:00	SM 2540 D-20

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: Holland Manufacturing Co.
Project: Pre Treatment Plant 2025
Client Sample ID: EFFLUENTDL
Lab Sample ID: Q3772-01DL

Date Collected: 12/03/25 11:30
Date Received: 12/03/25
SDG No.: Q3772
Matrix: WATER
% Solid: 0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	447	D	10	15.0	50.0	mg/L	12/04/25 14:00	12/05/25 12:10	SM 4500-NH3 B plus G-21

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: Holland Manufacturing Co.
Project: Pre Treatment Plant 2025
Client Sample ID: AERATION
Lab Sample ID: Q3772-04

Date Collected: 12/03/25 11:30
Date Received: 12/03/25
SDG No.: Q3772
Matrix: WATER
% Solid: 0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TSS	1130		1	1.00	4.00	mg/L		12/04/25 16:00	SM 2540 D-20

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: Holland Manufacturing Co.
Project: Pre Treatment Plant 2025
Client Sample ID: INFLUENT
Lab Sample ID: Q3772-05

Date Collected: 12/03/25 11:30
Date Received: 12/03/25
SDG No.: Q3772
Matrix: WATER
% Solid: 0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	254	OR	1	1.50	5.00	mg/L	12/04/25 14:00	12/05/25 11:40	SM 4500-NH3 B plus G-21
BOD5	8220		1	0.20	2.00	mg/L		12/04/25 11:25	SM 5210 B-16

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: Holland Manufacturing Co.
Project: Pre Treatment Plant 2025
Client Sample ID: INFLUENTDL
Lab Sample ID: Q3772-05DL

Date Collected: 12/03/25 11:30
Date Received: 12/03/25
SDG No.: Q3772
Matrix: WATER
% Solid: 0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	231	D	5	7.50	25.0	mg/L	12/04/25 14:00	12/05/25 12:10	SM 4500-NH3 B plus G-21

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

Initial and Continuing Calibration Verification

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

RunNo.: LB138125

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Ammonia as N	mg/L	1	1	100	90-110	12/05/2025
Sample ID: CCV1 Ammonia as N	mg/L	1	1	100	90-110	12/05/2025
Sample ID: CCV2 Ammonia as N	mg/L	1	1	100	90-110	12/05/2025
Sample ID: CCV3 Ammonia as N	mg/L	1	1	100	90-110	12/05/2025
Sample ID: CCV4 Ammonia as N	mg/L	1	1	100	90-110	12/05/2025

Initial and Continuing Calibration Verification

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

RunNo.: LB138129

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Orthophosphate as P	mg/L	0.486	0.50	97	90-110	12/05/2025
Sample ID: CCV1 Orthophosphate as P	mg/L	0.494	0.5	99	90-110	12/05/2025
Sample ID: CCV2 Orthophosphate as P	mg/L	0.497	0.5	99	90-110	12/05/2025

Initial and Continuing Calibration Verification

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

RunNo.: LB138132

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Phosphorus, Total	mg/L	0.522	0.50	104	90-110	12/05/2025
Sample ID: CCV1 Phosphorus, Total	mg/L	0.499	0.50	100	90-110	12/05/2025
Sample ID: CCV2 Phosphorus, Total	mg/L	0.507	0.50	101	90-110	12/05/2025
Sample ID: CCV3 Phosphorus, Total	mg/L	0.498	0.50	100	90-110	12/05/2025

Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

RunNo.: LB138125

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	12/05/2025
Sample ID: CCB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	12/05/2025
Sample ID: CCB2 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	12/05/2025
Sample ID: CCB3 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	12/05/2025
Sample ID: CCB4 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.030	0.1	12/05/2025

Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

RunNo.: LB138129

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Orthophosphate as P	mg/L	0.007	0.0250	J	0.0038	0.05	12/05/2025
Sample ID: CCB1 Orthophosphate as P	mg/L	0.004	0.0250	J	0.0038	0.05	12/05/2025
Sample ID: CCB2 Orthophosphate as P	mg/L	0.006	0.0250	J	0.0038	0.05	12/05/2025

Initial and Continuing Calibration Blank Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

RunNo.: LB138132

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	12/05/2025
Sample ID: CCB1 Phosphorus, Total	mg/L	0.009	0.0250	J	0.0045	0.05	12/05/2025
Sample ID: CCB2 Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	12/05/2025
Sample ID: CCB3 Phosphorus, Total	mg/L	0.010	0.0250	J	0.0045	0.05	12/05/2025

Preparation Blank Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB138103BL BOD5	mg/L	< 0.2000	0.2000	U	0.20	2.0	12/04/2025
Sample ID: LB138118BL TSS	mg/L	1	2.0000	J	1	4	12/04/2025
Sample ID: LB138129BL Orthophosphate as P	mg/L	0.006	0.0250	J	0.004	0.05	12/05/2025
Sample ID: LB138150BL Oil and Grease	mg/L	< 2.5000	2.5000	U	0.29	5.0	12/08/2025
Sample ID: PB170830BL Ammonia as N	mg/L	< 0.0500	0.0500	U	0.03	0.1	12/05/2025
Sample ID: PB170844BL Phosphorus, Total	mg/L	0.009	0.0250	J	0.005	0.05	12/05/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3760-01
Client ID:	001 Willets Pt Blvd (Dec)MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	3.90	OR	2.90	OR	1	1	100		12/05/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3760-01
Client ID:	001 Willets Pt Blvd (Dec)MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Ammonia as N	mg/L	75-125	4.00	OR	2.90	OR	1	1	110		12/05/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3772-01
Client ID:	EFFLUENTMS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Orthophosphate as P	mg/L	90-110	0.51		0.047	J	0.5	1	92		12/05/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3772-01
Client ID:	EFFLUENTMSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Orthophosphate as P	mg/L	90-110	0.50		0.047	J	0.5	1	91		12/05/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3772-01
Client ID:	EFFLUENTMS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	31.1		10.2		20.0	1	105		12/08/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3772-01
Client ID:	EFFLUENTMSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	30.9		10.2		20.0	1	104		12/08/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3778-01
Client ID:	SW-2MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Phosphorus, Total	mg/L	90-110	0.53		0.064		0.5	1	93		12/05/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3778-01
Client ID:	SW-2MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Phosphorus, Total	mg/L	90-110	0.52		0.064		0.5	1	92		12/05/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3785-01
Client ID:	WATER-TREATMEN DISCHARGEMS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	23.8		3.30	J	20.0	1	103		12/08/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3785-01
Client ID:	WATER-TREATMEN DISCHARGEMSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	24.1		3.30	J	20.0	1	104		12/08/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3793-01
Client ID:	Q3793-01MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	397		377		20.0	1	103		12/08/2025

Matrix Spike Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3793-01
Client ID:	Q3793-01MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Oil and Grease	mg/L	78-114	398		377		20.0	1	107		12/08/2025

Duplicate Sample Summary

Client: Holland Manufacturing Co. Project: Pre Treatment Plant 2025 Client ID: 001 Willets Pt Blvd (Dec)DUP	SDG No.: Q3772 Sample ID: Q3760-01 Percent Solids for Spike Sample: 0
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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	2.90	OR	2.90	OR	1	0		12/05/2025
Ammonia as N	mg/L	+/-20	2.70	D	2.70	D	2	0		12/05/2025

Duplicate Sample Summary

Client: Holland Manufacturing Co.	SDG No.: Q3772
Project: Pre Treatment Plant 2025	Sample ID: Q3760-01
Client ID: 001 Willets Pt Blvd (Dec)MSD	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Ammonia as N	mg/L	+/-20	3.90	OR	4.00	OR	1	3		12/05/2025

Duplicate Sample Summary

Client: Holland Manufacturing Co.	SDG No.: Q3772
Project: Pre Treatment Plant 2025	Sample ID: Q3760-02
Client ID: 002 35th Ave (Dec)DUP	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TSS	mg/L	+/-5	131		133		1	1.51		12/04/2025

Duplicate Sample Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3771-02
Client ID:	CompDUP	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
BOD5	mg/L	+/-20	87.4		86.0		1	1.61		12/04/2025

Duplicate Sample Summary

Client: Holland Manufacturing Co.	SDG No.: Q3772
Project: Pre Treatment Plant 2025	Sample ID: Q3772-01
Client ID: EFFLUENTDUP	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Orthophosphate as P	mg/L	+/-20	0.047	J	0.048	J	1	2.11		12/05/2025

Duplicate Sample Summary

Client: Holland Manufacturing Co. Project: Pre Treatment Plant 2025 Client ID: EFFLUENTMSD	SDG No.: Q3772 Sample ID: Q3772-01 Percent Solids for Spike Sample: 0
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Orthophosphate as P	mg/L	+/-20	0.51		0.50		1	0.99		12/05/2025

Duplicate Sample Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3772-01
Client ID:	EFFLUENTMSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Oil and Grease	mg/L	+/-18	31.1		30.9		1	0.65		12/08/2025

Duplicate Sample Summary

Client: Holland Manufacturing Co. Project: Pre Treatment Plant 2025 Client ID: SW-2DUP	SDG No.: Q3772 Sample ID: Q3778-01 Percent Solids for Spike Sample: 0
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Phosphorus, Total	mg/L	+/-20	0.064		0.063		1	1.57		12/05/2025

Duplicate Sample Summary

Client: Holland Manufacturing Co.	SDG No.: Q3772
Project: Pre Treatment Plant 2025	Sample ID: Q3778-01
Client ID: SW-2MSD	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Phosphorus, Total	mg/L	+/-20	0.53		0.52		1	0.95		12/05/2025

Duplicate Sample Summary

Client:	Holland Manufacturing Co.	SDG No.:	Q3772
Project:	Pre Treatment Plant 2025	Sample ID:	Q3785-01
Client ID:	WATER-TREATMEN DISCHARGEMSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Oil and Grease	mg/L	+/-18	23.8		24.1		1	1.25		12/08/2025

Duplicate Sample Summary

Client: Holland Manufacturing Co.	SDG No.: Q3772
Project: Pre Treatment Plant 2025	Sample ID: Q3793-01
Client ID: Q3793-01MSD	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Oil and Grease	mg/L	+/-18	397		398		1	0.2		12/08/2025

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

Run No.: LB138103

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB138103BS							
BOD5	mg/L	198	217		109	1	84.6-115.4	12/04/2025

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

Run No.: LB138118

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB138118BS							
TSS	mg/L	550	556		101	1	90-110	12/04/2025

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

Run No.: LB138129

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB138129BS							
Orthophosphate as P	mg/L	0.5	0.50		100	1	90-110	12/05/2025

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

Run No.: LB138150

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB138150BS							
Oil and Grease	mg/L	20.0	16.7		84	1	78-114	12/08/2025

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

Run No.: LB138125

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170830BS							
Ammonia as N	mg/L	1	1.00		100	1	90-110	12/05/2025

Laboratory Control Sample Summary

Client: Holland Manufacturing Co.

SDG No.: Q3772

Project: Pre Treatment Plant 2025

Run No.: LB138132

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170844BS							
Phosphorus, Total	mg/L	0.50	0.52		104	1	90-110	12/05/2025



RAW DATA

BOD5 LOG

ANALYST: rubin
 INST ID: DO METER
 LB: LB138103

SUPERVISOR: Iwona

Analysis Date: 12/04/2025

MANGANOUS SULFATE SOLUTION: W3103

Alkaline Iodide Azide: W3109

Sodium Thiosulfate, 0.025N: W3105

NaOH, 1N: WP113878

IncubatorID: INCUBATOR #3

GuageID: 0511064

Zero DO: WP115915

QC BATCH ID: LB138103

BOD Water: WP115912

Starch: W3149

Sulfuric acid, 1N: WP115342

POLYSEED: WP115914

GGA: WP115913

Chlorine Strips: W3155

pH Strips: W3241

Lab SampleID	Client ID	Bottle No.	VOL. ML	Initial Reading (ML)	Final Reading (ML)	Difference	Average
WINKLER 1	WINKLER 1	1	300	0.0	10.00	10	10
WINKLER 2	WINKLER 2	2	300	10.2	20.2	10	10

Meter Calibration1: 9.42 Zero DO Reading1: 0.12 mg/L (<=0.2 Criteria)

Barometric Pressure1: 760 mmHg DO Meter BOD fluid reading for winkler comparison: 10.09

After Incubation

Meter Calibration2: 9.35 Zero DO Reading2: 0.12 mg/L (<=0.2 Criteria)

Barometric Pressure2: 765 mmHg

QC BATCH ID: LB138103

INCUBATOR TEMP IN(C): 20.1

INCUBATOR TEMP OUT(C): 19.8

TIME IN: 11:25

TIME OUT: 09:25

DATE IN: 12/04/2025

DATE OUT: 12/09/2025

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
LB138103BL	1	No	6.69	N/A	20.90	300	10.09	10.07	0.02	0.02	0.02	
POLYSEED	1					10	10.04	6.47	3.57	0.71	0.7	
POLYSEED	2					15	10.01	4.79	5.22	0.7		
POLYSEED	3					20	9.96	3.07	6.89	0.69		
GGA	1					6	10.05	5.07	4.98	214	216.5	
GGA	2					6	10.04	4.93	5.11	220.5		
GGA	3					6	10.05	5.05	5	215		
Q3760-01	1	No	6.70	N/A	20.10	5	10.06	5.91	4.15	207	207	
Q3760-01	2					20	10.00	0.90	-	0		
Q3760-01	3					50	9.44	0.22	-	0		
Q3760-01	4					150	6.44	0.20	-	0		
Q3760-02	1	No	6.75	N/A	20.00	5	10.04	4.51	5.53	289.8	289.8	
Q3760-02	2					20	9.98	0.38	-	0		
Q3760-02	3					50	9.74	0.20	-	0		
Q3760-02	4					150	6.27	0.17	-	0		
Q3771-02	1	No	6.82	N/A	20.00	5	10.05	8.24	-	0	87.4	
Q3771-02	2					20	10.02	8.05	-	0		
Q3771-02	3					50	9.98	7.73	2.25	93		
Q3771-02	4					150	9.95	5.16	4.79	81.8		
Q3771-02DUP	1	No	6.82	N/A	20.00	5	10.06	8.57	-	0	86	
Q3771-02DUP	2					20	10.00	8.03	-	0		
Q3771-02DUP	3					50	9.97	7.86	2.11	84.6		
Q3771-02DUP	4					150	9.93	4.86	5.07	87.4		
Q3772-01	1	No	5.50	7.39	20.00	5	10.06	7.51	2.55	11100	7109	pH Adjusted
Q3772-01	2					20	10.04	5.13	4.91	6315		
Q3772-01	3					50	9.97	2.75	7.22	3912		
Q3772-01	4					150	9.88	0.60	-	0		
Q3772-01	5					10	9.71	0.20	-	0		
Q3772-05	1	No	5.15	7.11	20.00	5	10.05	6.85	3.2	15000	8223	pH Adjusted
Q3772-05	2					20	10.00	5.41	4.59	5835		
Q3772-05	3					50	9.95	2.86	7.09	3834		
Q3772-05	4					150	9.82	0.67	-	0		
Q3772-05	5					10	9.74	0.30	-	0		
Q3774-01	1	No	7.30	N/A	20.20	5	10.05	8.06	-	0	35.23	
Q3774-01	2					20	9.99	6.62	3.37	40.05		
Q3774-01	3					50	9.95	4.18	5.77	30.42		
Q3774-01	4					150	9.92	0.96	-	0		
Q3774-03	1	No	6.30	7.24	20.20	5	10.04	8.14	-	0	34.55	pH Adjusted
Q3774-03	2					20	10.00	6.71	3.29	38.85		
Q3774-03	3					50	9.98	4.24	5.74	30.24		
Q3774-03	4					150	9.96	0.78	-	0		

Q3774-05	1	No	6.94	N/A	20.10	5	10.04	8.07	-	0	36.34	
Q3774-05	2					20	9.96	6.55	3.41	40.65		
Q3774-05	3					50	9.90	3.86	6.04	32.04		
Q3774-05	4					150	9.87	0.74	-	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.

TOTAL SUSPENDED SOLIDS - SM2540D

TEMP1 IN: 104 °C 12/04/2025 10:00 **TEMP1 OUT:** 103 °C 12/04/2025 11:00
TEMP2 IN: 104 °C 12/04/2025 11:30 **TEMP2 OUT:** 103 °C 12/04/2025 12:30
TEMP3 IN: 104 °C 12/04/2025 16:00 **TEMP3 OUT:** 103 °C 12/04/2025 17:30
TEMP4 IN: 104 °C 12/04/2025 18:00 **TEMP4 OUT:** 103 °C 12/04/2025 19:35

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 12/04/2025

Run Number: LB138118

BalanceID: WC SC-5

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

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	LB138118BL	LB138118BL	1.5843	1.5843	100	1.5844	1.5844	1.5844	0.0001	1
2	LB138118BS	LB138118BS	1.3523	1.3523	100	1.4079	1.4079	1.4079	0.0556	556
3	Q3760-01	001 Willets Pt Blvd (Dec)	1.4945	1.4946	100	1.5051	1.5051	1.5051	0.0105	105
4	Q3760-02	002 35th Ave (Dec)	1.4904	1.4905	150	1.5102	1.5102	1.5102	0.0197	131.3
5	Q3760-02DUP	002 35th Ave (Dec) DUP	1.4695	1.4695	150	1.4895	1.4895	1.4895	0.0200	133.3
6	Q3771-02	Comp	1.4793	1.4793	100	1.4929	1.4929	1.4929	0.0136	136
7	Q3772-01	EFFLUENT	1.5010	1.5010	30	1.5409	1.5409	1.5409	0.0399	1330
8	Q3772-04	AERATION	1.4777	1.4777	30	1.5115	1.5115	1.5115	0.0338	1126.7
9	Q3773-01	TOWER#1	1.4777	1.4777	3000	1.4887	1.4887	1.4887	0.0110	3.7
10	Q3774-01	DSN002	1.4731	1.4731	2000	1.4863	1.4863	1.4863	0.0132	6.6
11	Q3774-03	DSN001	1.4812	1.4812	2000	1.5004	1.5004	1.5004	0.0192	9.6
12	Q3774-05	DSN003	1.4974	1.4974	2000	1.5061	1.5061	1.5061	0.0087	4.3
13	Q3777-01	SW-1	1.5011	1.5011	1000	3.5325	3.5325	3.5325	2.0314	2031.4
14	Q3778-01	SW-2	1.4723	1.4723	1000	1.5289	1.5289	1.5289	0.0566	56.6
15	Q3785-04	WATER-TREATMEN DISCHARGE	1.4943	1.4943	1500	1.4950	1.4950	1.4950	0.0007	0.5

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: jignesh

Date: 12/04/2025

Run Number: LB138118

BalanceID: WC SC-5

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 12/04/2025 10:00 **TEMP1 OUT:** 103 °C 12/04/2025 11:00
TEMP2 IN: 104 °C 12/04/2025 11:30 **TEMP2 OUT:** 103 °C 12/04/2025 12:30
TEMP3 IN: 104 °C 12/04/2025 16:00 **TEMP3 OUT:** 103 °C 12/04/2025 17:30
TEMP4 IN: 104 °C 12/04/2025 18:00 **TEMP4 OUT:** 103 °C 12/04/2025 19:35

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

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)

UB 138118

WorkList Name : iss q3570 WorkList ID : 193461 Department : Wet-Chemistry Date : 12-04-2025 08:30:33

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3760-01	H 001 Willets Pt Blvd (DEc)	Water	TSS	Cool 4 deg C	TULL01	A11	12/02/2025	SM2540 D
Q3760-02	H 002 35th Ave (Dec)	Water	TSS	Cool 4 deg C	TULL01	A11	12/02/2025	SM2540 D
Q3771-02	B Comp	Water	TSS	Cool 4 deg C	ARAM01	A11	12/04/2025	SM2540 D
Q3772-01	A EFFLUENT	Water	TSS	Cool 4 deg C	HOLL01	A11	12/03/2025	SM2540 D
Q3772-04	AERATION	Water	TSS	Cool 4 deg C	HOLL01	A11	12/03/2025	SM2540 D
Q3773-01	TOWER#1 A, C, D	Water	TSS	Cool 4 deg C	PSEG04	A11	12/03/2025	SM2540 D
Q3774-01	E, C DSN002	Water	TSS	Cool 4 deg C	PSEG04	A11	12/03/2025	SM2540 D
Q3774-03	E, C DSN001	Water	TSS	Cool 4 deg C	PSEG04	A11	12/03/2025	SM2540 D
Q3774-05	E, C DSN003	Water	TSS	Cool 4 deg C	PSEG04	A11	12/03/2025	SM2540 D
Q3777-01	E SW-1	Water	TSS	Cool 4 deg C	ATGG01	A11	12/02/2025	SM2540 D
Q3778-01	E SW-2	Water	TSS	Cool 4 deg C	ATGG01	A11	12/02/2025	SM2540 D
Q3785-04	P, E WATER-TREATMEN DISCHAR	Water	TSS	Cool 4 deg C	VERI01	A11	12/04/2025	SM2540 D

58
Date/Time 12/04/25 13:45
Raw Sample Received by: J.P. (0009)
Raw Sample Relinquished by: R3 CEA-Valley

Date/Time 12/04/25 18:30
Raw Sample Received by: R3 CEA-Valley
Raw Sample Relinquished by: J.P. (0009)

66138125

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

12/5/2025 12:22

Test: Ammonia-N

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	1.007	0.0	0.209	
ICB1	0.011	0.0	0.017	
CCV1	1.021	0.0	0.211	
CCB1	0.011	0.0	0.017	
RL CHECK	0.089	0.0	0.032	
PB170830BL	0.013	0.0	0.018	
PB170830BS	1.001	0.0	0.208	
Q3760-01	2.924	0.0	0.577	Test limit high
Q3760-01DUP	2.932	0.0	0.579	Test limit high
Q3760-01MS	3.946	0.0	0.774	Test limit high
Q3760-01MSD	3.972	0.0	0.779	Test limit high
Q3760-02	3.450	0.0	0.678	Test limit high
Q3772-01	9.817	0.0	1.903	Test limit high
Q3772-05	5.076	0.0	0.991	Test limit high
CCV2	1.009	0.0	0.209	
CCB2	0.012	0.0	0.017	
Q3785-04	0.037	0.0	0.022	
CCV3	1.024	0.0	0.212	
CCB3	0.014	0.0	0.018	
Q3760-01DLX2	1.359	0.0	0.277	
Q3760-01DUPDLX2	1.344	0.0	0.274	
Q3760-02DLX2	1.627	0.0	0.328	
Q3772-01DLX10	0.894	0.0	0.187	
Q3772-05DLX5	0.925	0.0	0.193	
CCV4	1.036	0.0	0.214	
CCB4	0.013	0.0	0.018	

097. (50-150) 12/05/2025
 RM

N 26
 Mean 1.714
 SD 2.1937
 CV% 127.98

Aquakem v. 7.2AQ1

Results from time period:

Fri Dec 05 10:02:13 2025

Fri Dec 05 12:17:53 2025

Sample Id	Sam/Ctr/c	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	Ammonia-1 P		0.0176	mg/l	12/5/2025 10:29:52	
0.1PPM	A	Ammonia-1 P		0.1102	mg/l	12/5/2025 10:29:53	
0.2PPM	A	Ammonia-1 P		0.1979	mg/l	12/5/2025 10:29:54	
0.4PPM	A	Ammonia-1 P		0.3953	mg/l	12/5/2025 10:29:55	
1.0PPM	A	Ammonia-1 P		0.9793	mg/l	12/5/2025 10:29:56	
1.3PPM	A	Ammonia-1 P		1.2991	mg/l	12/5/2025 10:29:57	
2.0PPM	A	Ammonia-1 P		2.0338	mg/l	12/5/2025 10:29:58	
ICV1	S	Ammonia-1 P		1.007	mg/l	12/5/2025 11:18:56	
ICB1	S	Ammonia-1 P		0.0106	mg/l	12/5/2025 11:18:57	
CCV1	S	Ammonia-1 P		1.0212	mg/l	12/5/2025 11:19:00	
CCB1	S	Ammonia-1 P		0.011	mg/l	12/5/2025 11:19:01	
RL CHECK	S	Ammonia-1 P		0.0889	mg/l	12/5/2025 11:19:05	
PB170830BL	S	Ammonia-1 P		0.013	mg/l	12/5/2025 11:29:39	
PB170830BS	S	Ammonia-1 P		1.0007	mg/l	12/5/2025 11:29:41	
Q3760-01	S	Ammonia-1 P		2.9243	mg/l	12/5/2025 11:29:43	
Q3760-01DUP	S	Ammonia-1 P		2.9318	mg/l	12/5/2025 11:29:46	
Q3760-01MS	S	Ammonia-1 P		3.9455	mg/l	12/5/2025 11:29:47	
Q3760-01MSD	S	Ammonia-1 P		3.9724	mg/l	12/5/2025 11:29:48	
Q3760-02	S	Ammonia-1 P		3.4496	mg/l	12/5/2025 11:29:49	
Q3772-01	S	Ammonia-1 P		9.8166	mg/l	12/5/2025 11:29:50	
Q3772-05	S	Ammonia-1 P		5.0758	mg/l	12/5/2025 11:40:21	
CCV2	S	Ammonia-1 P		1.0094	mg/l	12/5/2025 11:40:23	
CCB2	S	Ammonia-1 P		0.0123	mg/l	12/5/2025 11:40:26	
Q3785-04	S	Ammonia-1 P		0.0368	mg/l	12/5/2025 11:40:28	
CCV3	S	Ammonia-1 P		1.0244	mg/l	12/5/2025 11:40:29	
CCB3	S	Ammonia-1 P		0.0143	mg/l	12/5/2025 11:40:31	
Q3760-01DLX2	S	Ammonia-1 P		1.3594	mg/l	12/5/2025 12:10:34	
Q3760-01DUPDLX2	S	Ammonia-1 P		1.344	mg/l	12/5/2025 12:10:37	
Q3760-02DLX2	S	Ammonia-1 P		1.6272	mg/l	12/5/2025 12:10:39	
Q3772-01DLX10	S	Ammonia-1 P		0.894	mg/l	12/5/2025 12:10:42	
Q3772-05DLX5	S	Ammonia-1 P		0.9255	mg/l	12/5/2025 12:10:44	
CCV4	S	Ammonia-1 P		1.0361	mg/l	12/5/2025 12:17:49	
CCB4	S	Ammonia-1 P		0.0127	mg/l	12/5/2025 12:17:51	

Calibration results

Aquakem 7.2AQ1

Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM Instrument ID : Konelab

12/5/2025 10:42

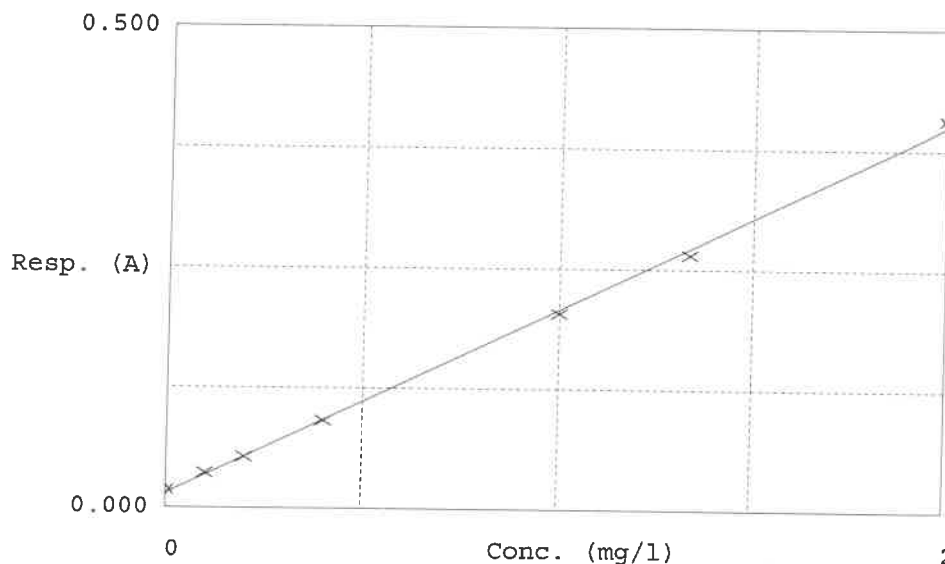
Test Ammonia-N

Accepted 12/5/2025 10:42

Factor 5.201
Bias 0.015

Coeff. of det. 0.999055

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.00PPM	0.019	0.0176	0.0000	-
2	NH3-2PPM	0.036	0.1102	0.1000	10.2
3	NH3-2PPM	0.053	0.1979	0.2000	-1.1
4	NH3-2PPM	0.091	0.3953	0.4000	-1.2
5	NH3-2PPM	0.203	0.9793	1.0000	-2.1
6	NH3-2PPM	0.265	1.2991	1.3333	-0.1
7	NH3-2PPM	0.406	2.0338	2.0000	1.7

12/05/2025
RM

Analysis Method: SM4500-P E

ANALYST: Iwona

Parameter: Phosphorus-Ortho

SUPERVISOR REVIEW BY: jignesh

Run Number: LB138129

Reagent/Standard	Lot/Log #
calibration std. phosphate 1 ppm	WP115969
calibration std. phosphate 0.5 ppm	WP115968
calibration std. phosphate 0.3 ppm	WP115967
calibration std. phosphate 0.1 ppm	WP115966
calibration std. phosphate 0.05 ppm	WP115965
calibration std. 0 ppm	WP115964
phosphate CCV std.	WP115970
5N sulfuric acid	WP115340
Combined reagent	WP115974
Phenolphthalein indicator	WP115975
Sodium hydroxide, 1N	WP113878
Phosphate ICV-LCS Std	WP115971
Phosphate RL CHECK	WP115972

Intercept: -0.0026

Slope: 0.6536

Regression: 0.999854

Seq	Lab ID	True Value (mg/L)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	%D	AnalDate	AnalTime
1	CAL1	0.00	1	50	50	0.000	0.004		12/05/2025	10:55
2	CAL2	0.05	1	50	50	0.031	0.051	2	12/05/2025	10:56
3	CAL3	0.10	1	50	50	0.064	0.102	2	12/05/2025	10:56
4	CAL4	0.30	1	50	50	0.185	0.287	-4.3	12/05/2025	10:57
5	CAL5	0.50	1	50	50	0.327	0.504	0.8	12/05/2025	10:57
6	CAL6	1.00	1	50	50	0.652	1.002	0.2	12/05/2025	10:58

Analysis Method: SM4500-P E

ANALYST: Iwona

Parameter: Phosphorus-Ortho

SUPERVISOR REVIEW BY: jignesh

Run Number: LB138129

Seq	Lab ID	True Value (mg/l)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	AnalDate	AnalTime
1	ICV	0.50	1	50	50	0.315	0.486	12/05/2025	10:58
2	ICB		1	50	50	0.002	0.007	12/05/2025	10:59
3	CCV1	0.5	1	50	50	0.320	0.494	12/05/2025	10:59
4	CCB1		1	50	50	0.000	0.004	12/05/2025	11:00
5	RL Check	0.05	1	50	50	0.029	0.048	12/05/2025	11:00
6	LB138129BL		1	50	50	0.001	0.006	12/05/2025	11:01
7	LB138129BS	0.5	1	50	50	0.325	0.501	12/05/2025	11:01
8	Q3772-01		1	50	50	0.028	0.047	12/05/2025	11:02
9	Q3772-01DUP		1	50	50	0.029	0.048	12/05/2025	11:02
10	Q3772-01MS	0.5	1	50	50	0.328	0.506	12/05/2025	11:03
11	Q3772-01MSD	0.5	1	50	50	0.325	0.501	12/05/2025	11:03
12	CCV2	0.5	1	50	50	0.322	0.497	12/05/2025	11:04
13	CCB2		1	50	50	0.001	0.006	12/05/2025	11:04

WORKLIST(Hardcopy Internal Chain)

213138129

WorkList Name : ORTHO PH- 120325

WorkList ID : 193506

Department : Wet-Chemistry

Date : 12-03-2025 14:15:36

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3772-01	EFFLUENT	Water	Phosphorus-Ortho	Cool 4 deg C	HOLL01	A11	12/03/2025	SM4500-P E

Date/Time 12/03/25 14:40
 Raw Sample Received by: 12/03/25
 Raw Sample Relinquished by: 12/03/25

Date/Time 12/03/25 15:50
 Raw Sample Received by: 12/03/25
 Raw Sample Relinquished by: 12/03/25

Analytical Summary Report

Analysis Method: 365.3
Parameter: Phosphorus-Total
Run Number: LB138132

ANALYST: Iwona

SUPERVISOR REVIEW BY: jignesh

Reagent/Standard	Lot/Log #
calibration std. phosphate 1 ppm	WP115969
calibration std. phosphate 0.5 ppm	WP115968
calibration std. phosphate 0.3 ppm	WP115967
calibration std. phosphate 0.1 ppm	WP115966
calibration std. phosphate 0.05 ppm	WP115965
calibration std. 0 ppm	WP115964
phosphate CCV std.	WP115970
5N sulfuric acid	WP115340
Combined reagent	WP115974
Phenolphthalein indicator	WP115975
Sodium hydroxide, 1N	WP113878
Phosphate ICV-LCS Std	WP115971

Intercept: -0.0037

Slope: 0.6502

Regression: 0.99972

Seq	Lab ID	True Value (mg/L)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	%D	AnalDate	AnalTime
1	CAL1	0.00	1	50	50	0.000	0.006		12/05/2025	13:40
2	CAL2	0.05	1	50	50	0.032	0.055	10	12/05/2025	13:40
3	CAL3	0.10	1	50	50	0.064	0.104	4	12/05/2025	13:41
4	CAL4	0.30	1	50	50	0.181	0.284	-5.3	12/05/2025	13:41
5	CAL5	0.50	1	50	50	0.318	0.495	-1	12/05/2025	13:42
6	CAL6	1.00	1	50	50	0.651	1.007	0.7	12/05/2025	13:42

Analytical Summary Report

Analysis Method: 365.3

ANALYST: Iwona

Parameter: Phosphorus-Total

SUPERVISOR REVIEW BY: jignesh

Run Number: LB138132

Seq	Lab ID	True Value (mg/l)	DF	Initial Volume (mL)	Final Volume (mL)	Absorbance Reading at 880nm	Result (mg/L)	AnalDate	AnalTime
1	ICV	0.50	1	50	50	0.336	0.522	12/05/2025	13:43
2	ICB		1	50	50	0.003	0.010	12/05/2025	13:43
3	CCV1	0.50	1	50	50	0.321	0.499	12/05/2025	13:44
4	CCB1		1	50	50	0.002	0.009	12/05/2025	13:44
5	RL Check	0.05	1	50	50	0.024	0.043	12/05/2025	13:45
6	PB170844BL		1	50	50	0.002	0.009	12/05/2025	13:45
7	PB170844BS	0.50	1	50	50	0.334	0.519	12/05/2025	13:46
8	Q3728-01		1	50	50	0.063	0.103	12/05/2025	13:46
9	Q3729-01		1	50	50	0.048	0.080	12/05/2025	13:47
10	Q3734-01		1	50	50	0.089	0.143	12/05/2025	13:47
11	Q3734-02		1	50	50	0.043	0.072	12/05/2025	13:48
12	Q3772-01		1	50	50	0.040	0.067	12/05/2025	13:48
13	Q3777-01		1	50	50	0.134	0.212	12/05/2025	13:49
14	Q3778-01		1	50	50	0.038	0.064	12/05/2025	13:49
15	Q3778-01DUP		1	50	50	0.037	0.063	12/05/2025	13:50
16	CCV2	0.50	1	50	50	0.326	0.507	12/05/2025	13:50
17	CCB2		1	50	50	0.003	0.010	12/05/2025	13:51
18	Q3778-01MS	0.50	1	50	50	0.340	0.529	12/05/2025	13:51
19	Q3778-01MSD	0.50	1	50	50	0.337	0.524	12/05/2025	13:52
20	CCV3	0.50	1	50	50	0.320	0.498	12/05/2025	13:52
21	CCB3		1	50	50	0.003	0.010	12/05/2025	13:53

Extraction and Analytical Summary Report

Analysis Method: 1664A

Test: Oil and Grease

Run Number: LB138150

Analysis Date: 12/08/2025

BalanceID: WC SC-5

OvenID: EXT OVEN-3

ANALYST: jignesh

REVIEWED BY: Iwona

Extraction Date: 12/08/2025

Extraction IN Time: 11:15

Extraction OUT Time: 11:35

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	LB138150BL	LB138150BL	WATER	1.3	1000	100	3.4217	3.4217	0	3.4218	3.4218	0.0001	0.1
2	LB138150BS	LB138150BS	WATER	1.3	1000	100	2.8563	2.8563	0	2.8730	2.8730	0.0167	16.7
3	Q3760-01	001 Willets Pt Blvd (D	WATER	1.3	1000	100	3.0535	3.0535	0	3.0591	3.0591	0.0056	5.6
4	Q3760-02	002 35th Ave (Dec)	WATER	1.3	1000	100	3.0717	3.0717	0	3.0788	3.0788	0.0071	7.1
5	Q3772-01	EFFLUENT	WATER	1.6	1000	100	3.0551	3.0551	0	3.0653	3.0653	0.0102	10.2
6	Q3772-02	Q3772-01MS	WATER	1.6	1000	100	3.1658	3.1658	0	3.1969	3.1969	0.0311	31.1
7	Q3772-03	Q3772-01MSD	WATER	1.6	1000	100	2.8413	2.8413	0	2.8722	2.8722	0.0309	30.9
8	Q3777-01	SW-1	WATER	1.6	400	100	3.1068	3.1068	0	3.1091	3.1091	0.0023	5.75
9	Q3778-01	SW-2	WATER	1.6	900	100	3.0328	3.0328	0	3.0332	3.0332	0.0004	0.44
10	Q3785-01	WATER-TREATMEN DISCHAF	WATER	1.6	1000	100	3.0354	3.0354	0	3.0387	3.0387	0.0033	3.3
11	Q3785-02	Q3785-01MS	WATER	1.6	1000	100	3.1961	3.1961	0	3.2199	3.2199	0.0238	23.8
12	Q3785-03	Q3785-01MSD	WATER	1.6	1000	100	2.7411	2.7411	0	2.7652	2.7652	0.0241	24.1
13	Q3793-01	MH-1252025	WATER	1.6	1000	100	3.0778	3.0778	0	3.4545	3.4545	0.3767	376.7
14	Q3793-02	Q3793-01-MS	WATER	1.6	1000	100	2.9633	2.9633	0	3.3605	3.3605	0.3972	397.2
15	Q3793-03	Q3793-01-MSD	WATER	1.6	1000	100	2.9971	2.9971	0	3.3951	3.3951	0.3980	398

QC Batch# LB138150

Test: Oil and Grease

Analysis Date: 12/08/2025

Chemicals Used:

Chemical Name	Chemical Lot #
HEXANE	W3240
pH Paper 0-14	M6069
Sodium Sulfate	EP2665
1:1 HCL	WP115016
Silica Gel	N/A
Sand	N/A

Standards Used:

Standard Name	Amount Used	Standard Lot #
LCSW	2.5 ML	WP115017
LCSWD	N/A	N/A
MS/MSD	2.5 ML	WP115018

BALANCE CALIBRATION / OVEN Dessicator Data

Analytical Balance ID # : WC SC-6

Before Analysis

0.0020 gram Balance: 0.0018 (0.0018-0.0022) In OVEN TEMP1 : 71 °C Dessicator Time In1 : 13:32

1.0000 gram Balance: 1.0004 (0.9950-1.0050) In Time1: 12:37

Bal Check Time: 11:20 Out OVEN TEMP1: 70 °C Dessicator Time Out1: 14:00

Out Time1: 13:30

After Analysis

0.0020 gram Balance: 0.002 (0.0018-0.0022) In OVEN TEMP2 : 71 °C Dessicator Time In2 : 15:16

1.0000 gram Balance: 1.0003 (0.9950-1.0050) In Time2: 14:37

Bal Check Time: 16:02 Out OVEN TEMP2: 70 °C Dessicator Time Out2: 16:00

Out Time2: 15:15

WORKLIST(Hardcopy Internal Chain)

138151

WorkList Name : tph q3793

WorkList ID : 193530

Department : Wet-Chemistry

Date : 12-08-2025 10:57:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3752-01 D	402	Water	TPH	Conc H2SO4 to pH < 2	PSEG04	A13	12/02/2025	1664A
Q3771-01	Grab	Water	TPH	Conc H2SO4 to pH < 2	ARAM01	A11	12/03/2025	1664A
Q3793-01 E	MH-1252025	Water	TPH	Conc H2SO4 to pH < 2	EURO03	D11	12/05/2025	1664A

Date/Time 12/08/25 11:10

Raw Sample Received by: 70 (wec)

Raw Sample Relinquished by: CPD

Date/Time 12/08/25

Raw Sample Received by: CP

Raw Sample Relinquished by: 88 (wec)

SOP ID : MSM4500-NH3 B,G-Ammonia-18

SDG No : N/A

Start Digest Date: 12/04/2025 Time : 14:00 Temp : 150 °C

Matrix : WATER

End Digest Date: 12/04/2025 Time : 15:00 Temp : 160 °C

Pipette ID : WC

1st batch 12/04/2025 15.25 1542
12/04/2025 16.25 1602

Balance ID : N/A

Hood ID : HOOD#2

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Block ID : WC-DIST-BLOCK-1

Filter paper ID : N/A

Prep Technician Signature: *RM*

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: *12*

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP115589
MS/MSD SPIKE SOL.	1.0ML	WP115588
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP115588
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP113886
NAOH 6N	0.5-2.0ML	WP113887
H2SO4 0.04N	5.0ML	WP115336
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 WP114104. Due to bad matrix and client history 1ML was taken as an initial volume for Q3772-01 and Q3772-05.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/4/2025 16:40	<i>RM (WC)</i>	<i>RM (WC)</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
PB170830BL	PBW830	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB170830BS	LCS830	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3760-01DUP	001 WILLETS PT BLVD (DEC)DUP	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3760-01MS	001 WILLETS PT BLVD (DEC)MS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3760-01MSD	001 WILLETS PT BLVD (DEC)MSD	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3760-01	001 WILLETS PT BLVD (DEC)	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3760-02	002 35TH AVE (DEC)	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3772-01	EFFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3772-05	INFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
Q3785-04	WATER-TREATMEN DISCHARGE	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-12-03

WorkList ID : 193480

Department : Distillation

Date : 12-04-2025 10:37:01

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3760-01	001 Willets Pt Blvd (DEc)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	A11	12/02/2025	SM4500-NH3
Q3760-02	002 35th Ave (Dec)	Water	Ammonia	Conc H2SO4 to pH < 2	TULL01	A11	12/02/2025	SM4500-NH3
Q3772-01	EFFLUENT	Water	Ammonia	Conc H2SO4 to pH < 2	HOLL01	A11	12/03/2025	SM4500-NH3
Q3772-05	INFLUENT	Water	Ammonia	Conc H2SO4 to pH < 2	HOLL01	A11	12/03/2025	SM4500-NH3

Date/Time 12/04/2025 13:00
 Raw Sample Received by: RM (wg)
 Raw Sample Relinquished by: JG (wg)

Date/Time 12/04/2025 16:16
 Raw Sample Received by: JG (wg)
 Raw Sample Relinquished by: RM (wg)

WORKLIST(Hardcopy Internal Chain)

WorkList Name : AMMONIA-Q3785

WorkList ID : 193482

Department : Distillation

Date : 12-04-2025 14:06:05

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3785-04	WATER-TREATMEN DISCHAR	Water	Ammonia	Conc H2SO4 to pH < 2	VERI01	A11	12/04/2025	SM4500-NH3

Date/Time 12/04/2025 14:55
 Raw Sample Received by: RM LWO
 Raw Sample Relinquished by: RM LWO

Date/Time 12/04/2025 16:10
 Raw Sample Received by: RM LWO
 Raw Sample Relinquished by: RM LWO

SOP ID : M365.3 & SM4500-P E-19

SDG No : N/A

Matrix : WATER

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#3

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

Weigh By : N/A

Start Digest Date: 12/05/2025 Time : 10:45 Temp : 95 °C

End Digest Date: 12/05/2025 Time : 11:50 Temp : 96 °C

Ind below 12/05/2025 12:00 95% yr
 12/05/2025 13:00 96% yr

Digestion tube ID : M5595

Block Thermometer ID : WC-BLOCK#1

Filter paper ID : 400213

Prep Technician Signature: 12

pH Meter ID : N/A

Supervisor Signature: SP

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	0.5ML	WP115559
MS/MSD SPIKE SOL.	0.5ML	WP115558
PBW	50.ML	W3112
RL CHECK	50.0ML	WP115972
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
11N H2SO4	1ML	WP115089
AMMONIUM PERSULFATE	0.4g	W3035
pH Paper 0-14	N/A	W3241
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
CAL1	CAL1	50.0ML	WP115964
CAL2	CAL2	50.0ML	WP115965
CAL3	CAL3	50.0ML	WP115966
CAL4	CAL4	50.0ML	WP115967
CAL5	CAL5	50.0ML	WP115968
CAL6	CAL6	50.0ML	WP115969
ICV	ICV	50.0ML	WP115971
ICB	ICB	50.0ML	W3112
CCV	CCV	50.0ML	WP115970
CCB	CCB	50.0ML	W3112

Extraction Conformance/Non-Conformance Comments:

N/A

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

12 12/05/25

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170844BL	PBW844	50	50	<2	N/A	N/A	N/A	N/A	N/A
PB170844BS	LCS844	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3728-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3729-01	1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3734-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3734-02	SW-2	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3772-01	EFFLUENT	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3777-01	SW-1	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3778-01	SW-2	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3778-01DUP	SW-2DUP	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3778-01MS	SW-2MS	50	50	<2	N/A	N/A	N/A	N/A	N/A
Q3778-01MSD	SW-2MSD	50	50	<2	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : phos total

WorkList ID : 193497

Department : Distillation

Date : 12-05-2025 08:12:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3728-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	11/25/2025	365.3
Q3729-01	1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	11/25/2025	365.3
Q3734-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A43	11/25/2025	365.3
Q3734-02	SW-2	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A43	11/25/2025	365.3
Q3772-01	EFFLUENT	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	HOLL01	A11	12/03/2025	365.3
Q3777-01	SW-1	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	12/02/2025	365.3
Q3778-01	SW-2	Water	Phosphorus-Total	Conc H2SO4 to pH < 2	ATGG01	A11	12/02/2025	365.3

Date/Time 12/05/25 10:10
 Raw Sample Received by: 12 (WC)
 Raw Sample Relinquished by: 12 (WC)

Date/Time 12/05/25 12:30
 Raw Sample Received by: 12 (WC)
 Raw Sample Relinquished by: 12 (WC)

Instrument ID: DO METER

Daily Analysis Runlog For Sequence/QC Batch ID # LB138103

Review By	rubina	Review On	12/9/2025 1:12:55 PM
Supervise By	Iwona	Supervise On	12/9/2025 1:13:04 PM
SubDirectory	LB138103	Test	BOD5
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115912,W3149,WP115342,W3103,W3109,W3105,WP115914,WP115913,WP113878		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB138103BL	LB138103BL	MB	12/04/25 11:25		rubina	OK
2	LB138103BS	LB138103BS	LCS	12/04/25 11:25		rubina	OK
3	Q3760-01	001 Willets Pt Blvd (D	SAM	12/04/25 11:25		rubina	OK
4	Q3760-02	002 35th Ave (Dec)	SAM	12/04/25 11:25		rubina	OK
5	Q3771-02	Comp	SAM	12/04/25 11:25		rubina	OK
6	Q3771-02DUP	CompDUP	DUP	12/04/25 11:25		rubina	OK
7	Q3772-01	EFFLUENT	SAM	12/04/25 11:25	Due to bad matrix difference between highest and lowest results is >30% for	rubina	OK
8	Q3772-05	INFLUENT	SAM	12/04/25 11:25	Due to bad matrix difference between highest and lowest results is >30% for	rubina	OK
9	Q3774-01	DSN002	SAM	12/04/25 11:25		rubina	OK
10	Q3774-03	DSN001	SAM	12/04/25 11:25		rubina	OK
11	Q3774-05	DSN003	SAM	12/04/25 11:25		rubina	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB138118

Review By	jignesh	Review On	12/5/2025 8:55:44 AM
Supervise By	Iwona	Supervise On	12/5/2025 9:59:39 AM
SubDirectory	LB138118	Test	TSS
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB138118BL	LB138118BL	MB	12/04/25 16:00		jignesh	OK
2	LB138118BS	LB138118BS	LCS	12/04/25 16:00	55 mg w3186 + 100 ml w3112	jignesh	OK
3	Q3760-01	001 Willets Pt Blvd (D	SAM	12/04/25 16:00		jignesh	OK
4	Q3760-02	002 35th Ave (Dec)	SAM	12/04/25 16:00		jignesh	OK
5	Q3760-02DUP	002 35th Ave (Dec)DU	DUP	12/04/25 16:00		jignesh	OK
6	Q3771-02	Comp	SAM	12/04/25 16:00		jignesh	OK
7	Q3772-01	EFFLUENT	SAM	12/04/25 16:00		jignesh	OK
8	Q3772-04	AERATION	SAM	12/04/25 16:00		jignesh	OK
9	Q3773-01	TOWER#1	SAM	12/04/25 16:00		jignesh	OK
10	Q3774-01	DSN002	SAM	12/04/25 16:00		jignesh	OK
11	Q3774-03	DSN001	SAM	12/04/25 16:00		jignesh	OK
12	Q3774-05	DSN003	SAM	12/04/25 16:00		jignesh	OK
13	Q3777-01	SW-1	SAM	12/04/25 16:00		jignesh	OK
14	Q3778-01	SW-2	SAM	12/04/25 16:00		jignesh	OK
15	Q3785-04	WATER-TREATMENT	SAM	12/04/25 16:00		jignesh	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB138125

Review By	rubina	Review On	12/5/2025 4:26:35 PM
Supervise By	Iwona	Supervise On	12/5/2025 4:31:22 PM
SubDirectory	LB138125	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP115961		
ICV Standard	WP115963		
CCV Standard	WP115962		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115589		
Chk Standard	WP115821,WP114133,WP113929,WP114132		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPM	0.0PPM	CAL1	12/05/25 10:29		rubina	OK
2	0.1PPM	0.1PPM	CAL2	12/05/25 10:29		rubina	OK
3	0.2PPM	0.2PPM	CAL3	12/05/25 10:29		rubina	OK
4	0.4PPM	0.4PPM	CAL4	12/05/25 10:29		rubina	OK
5	1.0PPM	1.0PPM	CAL5	12/05/25 10:29		rubina	OK
6	1.3PPM	1.3PPM	CAL6	12/05/25 10:29		rubina	OK
7	2.0PPM	2.0PPM	CAL7	12/05/25 10:29		rubina	OK
8	ICV1	ICV1	ICV	12/05/25 11:18		rubina	OK
9	ICB1	ICB1	ICB	12/05/25 11:18		rubina	OK
10	CCV1	CCV1	CCV	12/05/25 11:19		rubina	OK
11	CCB1	CCB1	CCB	12/05/25 11:19		rubina	OK
12	RL	RL	LOQ	12/05/25 11:19		rubina	OK
13	PB170830BL	PB170830BL	MB	12/05/25 11:29		rubina	OK
14	PB170830BS	PB170830BS	LCS	12/05/25 11:29		rubina	OK
15	Q3760-01	001 Willets Pt Blvd (D	SAM	12/05/25 11:29	NH3 is high, need dilution.	rubina	Dilution
16	Q3760-01DUP	001 Willets Pt Blvd (D	DUP	12/05/25 11:29	NH3 is high, need dilution.	rubina	Dilution
17	Q3760-01MS	001 Willets Pt Blvd (D	MS	12/05/25 11:29		rubina	OK
18	Q3760-01MSD	001 Willets Pt Blvd (D	MSD	12/05/25 11:29		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB138125

Review By	rubina	Review On	12/5/2025 4:26:35 PM
Supervise By	Iwona	Supervise On	12/5/2025 4:31:22 PM
SubDirectory	LB138125	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP115961		
ICV Standard	WP115963		
CCV Standard	WP115962		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP115589		
Chk Standard	WP115821,WP114133,WP113929,WP114132		

19	Q3760-02	002 35th Ave (Dec)	SAM	12/05/25 11:29	NH3 is high, need dilution.	rubina	Dilution
20	Q3772-01	EFFLUENT	SAM	12/05/25 11:29	NH3 is high, need dilution.	rubina	Dilution
21	Q3772-05	INFLUENT	SAM	12/05/25 11:40	NH3 is high, need dilution.	rubina	Dilution
22	CCV2	CCV2	CCV	12/05/25 11:40		rubina	OK
23	CCB2	CCB2	CCB	12/05/25 11:40		rubina	OK
24	Q3785-04	WATER-TREATMENT	SAM	12/05/25 11:40		rubina	OK
25	CCV3	CCV3	CCV	12/05/25 11:40		rubina	OK
26	CCB3	CCB3	CCB	12/05/25 11:40		rubina	OK
27	Q3760-01DL	001 Willets Pt Blvd (D	SAM	12/05/25 12:10	2X For NH3	rubina	Confirms
28	Q3760-01DUPDL	001 Willets Pt Blvd (D	DUP	12/05/25 12:10	2X For NH3	rubina	Confirms
29	Q3760-02DL	002 35th Ave (Dec)DL	SAM	12/05/25 12:10	2X For NH3	rubina	Confirms
30	Q3772-01DL	EFFLUENTDL	SAM	12/05/25 12:10	10X For NH3	rubina	Confirms
31	Q3772-05DL	INFLUENTDL	SAM	12/05/25 12:10	5X For NH3	rubina	Confirms
32	CCV4	CCV4	CCV	12/05/25 12:17		rubina	OK
33	CCB4	CCB4	CCB	12/05/25 12:17		rubina	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB138129

Review By	Iwona	Review On	12/5/2025 2:35:42 PM
Supervise By	jignesh	Supervise On	12/5/2025 3:00:16 PM
SubDirectory	LB138129	Test	Phosphorus-Ortho
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115969,WP115968,WP115967,WP115966,WP115965,WP115964,WP115970,WP115340,WP115974,WP115975,V		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/05/25 10:55		Iwona	OK
2	CAL2	CAL2	CAL	12/05/25 10:56		Iwona	OK
3	CAL3	CAL3	CAL	12/05/25 10:56		Iwona	OK
4	CAL4	CAL4	CAL	12/05/25 10:57		Iwona	OK
5	CAL5	CAL5	CAL	12/05/25 10:57		Iwona	OK
6	CAL6	CAL6	CAL	12/05/25 10:58		Iwona	OK
7	ICV	ICV	ICV	12/05/25 10:58		Iwona	OK
8	ICB	ICB	ICB	12/05/25 10:59		Iwona	OK
9	CCV1	CCV1	CCV	12/05/25 10:59		Iwona	OK
10	CCB1	CCB1	CCB	12/05/25 11:00		Iwona	OK
11	RL Check	RL Check	RL	12/05/25 11:00		Iwona	OK
12	LB138129BL	LB138129BL	MB	12/05/25 11:01		Iwona	OK
13	LB138129BS	LB138129BS	LCS	12/05/25 11:01		Iwona	OK
14	Q3772-01	EFFLUENT	SAM	12/05/25 11:02		Iwona	OK
15	Q3772-01DUP	EFFLUENTDUP	DUP	12/05/25 11:02		Iwona	OK
16	Q3772-01MS	EFFLUENTMS	MS	12/05/25 11:03		Iwona	OK
17	Q3772-01MSD	EFFLUENTMSD	MSD	12/05/25 11:03		Iwona	OK
18	CCV2	CCV2	CCV	12/05/25 11:04		Iwona	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB138129

Review By	Iwona	Review On	12/5/2025 2:35:42 PM
Supervise By	jignesh	Supervise On	12/5/2025 3:00:16 PM
SubDirectory	LB138129	Test	Phosphorus-Ortho
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115969,WP115968,WP115967,WP115966,WP115965,WP115964,WP115970,WP115340,WP115974,WP115975,V		

19	CCB2	CCB2	CCB	12/05/25 11:04		Iwona	OK
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Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB138132

Review By	Iwona	Review On	12/5/2025 2:53:20 PM
Supervise By	jignesh	Supervise On	12/5/2025 2:59:51 PM
SubDirectory	LB138132	Test	Phosphorus-Total
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115969,WP115968,WP115967,WP115966,WP115965,WP115964,WP115970,WP115340,WP115974,WP115975,V		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	12/05/25 13:40		Iwona	OK
2	CAL2	CAL2	CAL	12/05/25 13:40		Iwona	OK
3	CAL3	CAL3	CAL	12/05/25 13:41		Iwona	OK
4	CAL4	CAL4	CAL	12/05/25 13:41		Iwona	OK
5	CAL5	CAL5	CAL	12/05/25 13:42		Iwona	OK
6	CAL6	CAL6	CAL	12/05/25 13:42		Iwona	OK
7	ICV	ICV	ICV	12/05/25 13:43		Iwona	OK
8	ICB	ICB	ICB	12/05/25 13:43		Iwona	OK
9	CCV1	CCV1	CCV	12/05/25 13:44		Iwona	OK
10	CCB1	CCB1	CCB	12/05/25 13:44		Iwona	OK
11	RL Check	RL Check	RL	12/05/25 13:45		Iwona	OK
12	PB170844BL	PB170844BL	MB	12/05/25 13:45		Iwona	OK
13	PB170844BS	PB170844BS	LCS	12/05/25 13:46		Iwona	OK
14	Q3728-01	SW-1	SAM	12/05/25 13:46		Iwona	OK
15	Q3729-01	1	SAM	12/05/25 13:47		Iwona	OK
16	Q3734-01	SW-1	SAM	12/05/25 13:47		Iwona	OK
17	Q3734-02	SW-2	SAM	12/05/25 13:48		Iwona	OK
18	Q3772-01	EFFLUENT	SAM	12/05/25 13:48		Iwona	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB138132

Review By	Iwona	Review On	12/5/2025 2:53:20 PM
Supervise By	jignesh	Supervise On	12/5/2025 2:59:51 PM
SubDirectory	LB138132	Test	Phosphorus-Total
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP115969,WP115968,WP115967,WP115966,WP115965,WP115964,WP115970,WP115340,WP115974,WP115975,V		

19	Q3777-01	SW-1	SAM	12/05/25 13:49		Iwona	OK
20	Q3778-01	SW-2	SAM	12/05/25 13:49		Iwona	OK
21	Q3778-01DUP	SW-2DUP	DUP	12/05/25 13:50		Iwona	OK
22	CCV2	CCV2	CCV	12/05/25 13:50		Iwona	OK
23	CCB2	CCB2	CCB	12/05/25 13:51		Iwona	OK
24	Q3778-01MS	SW-2MS	MS	12/05/25 13:51		Iwona	OK
25	Q3778-01MSD	SW-2MSD	MSD	12/05/25 13:52		Iwona	OK
26	CCV3	CCV3	CCV	12/05/25 13:52		Iwona	OK
27	CCB3	CCB3	CCB	12/05/25 13:53		Iwona	OK

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB138150

Review By	jignesh	Review On	12/8/2025 12:52:51 PM
Supervise By	Iwona	Supervise On	12/8/2025 1:29:53 PM
SubDirectory	LB138150	Test	Oil and Grease
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	W3240,M6069,EP2665,WP115016,N/A,N/A,WP115017,N/A,WP115018		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB138150BL	LB138150BL	MB	12/08/25 12:37		jignesh	OK
2	LB138150BS	LB138150BS	LCS	12/08/25 12:37		jignesh	OK
3	Q3760-01	001 Willets Pt Blvd (D	SAM	12/08/25 12:37		jignesh	OK
4	Q3760-02	002 35th Ave (Dec)	SAM	12/08/25 12:37		jignesh	OK
5	Q3772-01	EFFLUENT	SAM	12/08/25 12:37		jignesh	OK
6	Q3772-02	Q3772-01MS	MS	12/08/25 12:37		jignesh	OK
7	Q3772-03	Q3772-01MSD	MSD	12/08/25 12:37		jignesh	OK
8	Q3777-01	SW-1	SAM	12/08/25 12:37		jignesh	OK
9	Q3778-01	SW-2	SAM	12/08/25 12:37		jignesh	OK
10	Q3785-01	WATER-TREATMENT	SAM	12/08/25 12:37		jignesh	OK
11	Q3785-02	Q3785-01MS	MS	12/08/25 12:37		jignesh	OK
12	Q3785-03	Q3785-01MSD	MSD	12/08/25 12:37		jignesh	OK
13	Q3793-01	MH-1252025	SAM	12/08/25 12:37		jignesh	OK
14	Q3793-02	Q3793-01MS	MS	12/08/25 12:37		jignesh	OK
15	Q3793-03	Q3793-01MSD	MSD	12/08/25 12:37		jignesh	OK

Prep Standard - Chemical Standard Summary

Order ID : Q3772

Test : Ammonia,BOD5,Oil and Grease,Phosphorus-Ortho,Phosphorus-Total,TSS

Prepbatch ID : PB170830,PB170844,

Sequence ID/Qc Batch ID: LB138103,LB138118,LB138125,LB138129,LB138132,LB138150,

Standard ID :

EP2665,WP113878,WP113885,WP113886,WP113887,WP113929,WP114132,WP114133,WP115016,WP115017,WP115018,WP115085,WP115086,WP115089,WP115336,WP115340,WP115342,WP115558,WP115559,WP115588,WP115589,WP115793,WP115794,WP115821,WP115912,WP115913,WP115914,WP115961,WP115962,WP115963,WP115964,WP115965,WP115966,WP115967,WP115968,WP115969,WP115970,WP115971,WP115972,WP115973,WP115974,WP115975,

Chemical ID :

E3875,E3972,M6069,M6151,M6186,W2306,W2653,W2654,W2663,W2664,W2666,W2817,W2871,W3009,W3035,W3082,W3103,W3105,W3109,W3112,W3113,W3132,W3133,W3149,W3155,W3195,W3196,W3201,W3202,W3206,W3218,W3222,W3240,W3241,W3243,W3252,W3253,



<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	EP2665	12/05/2025	06/05/2026	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 12/05/2025
<u>FROM</u> 4000.00000gram of E3875 = 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>
1571	Sodium hydroxide, 1N	WP113878	07/09/2025	12/31/2025	Iwona Zarych	WETCHEM_SCALE_7 (WCS-6)	None	Jignesh Parikh 07/09/2025
<u>FROM</u> 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>
1796	NaOH, 0.1N	WP113885	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/10/2025
FROM 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>
1494	BORATE BUFFER	WP113886	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/10/2025
<u>FROM</u> 0.90250L of W3112 + 9.50000gram of W3201 + 88.00000ml of WP113885 = 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>
1471	NaOH Solution, 6N	WP113887	07/10/2025	12/31/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych 07/10/2025
<u>FROM</u> 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>
290	Phenol reagent for Ammonia	WP113929	07/14/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/15/2025
<u>FROM</u> 3.20000gram of W3113 + 8.30000gram of W2663 + 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	WP114132	07/31/2025	12/31/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 07/31/2025
<u>FROM</u> 5.50000gram of W3113 + 50.00000gram of W3132 + 950.00000ml 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>
289	Sodium Hypochlorite for Ammonia	WP114133	07/31/2025	12/31/2025	Rubina Mughal	None	None	Iwona Zarych 08/04/2025
<u>FROM</u> 50.00000ml of W3112 + 50.00000ml of W3222 = 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	WP115016	10/02/2025	02/17/2026	Jignesh Parikh	None	None	Iwona Zarych
								10/02/2025

FROM 500.00000ml of M6151 + 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>
2470	1664A SPIKING SOLN	WP115017	10/02/2025	04/02/2026	Jignesh Parikh	WETCHEM_S CALE_7 (WC SC-6)	None	Iwona Zarych
								10/02/2025

FROM 1000.00000ml of E3972 + 4.00000gram of W2817 + 4.00000gram of W2871 = 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>
3374	1664A QCS spiking solution-SS	WP115018	10/02/2025	04/02/2026	Jignesh Parikh	WETCHEM_SCALE_7 (WC SC-6)	None	Iwona Zarych 10/02/2025
<u>FROM</u>	1000.0000ml of E3972 + 4.00000gram of W3009 + 4.00000gram of W3082 = 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)	WP115085	10/08/2025	04/08/2026	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 10/08/2025
<u>FROM</u> 3.81900gram of W3196 + 996.18100ml of W3112 = Final Quantity: 1000.000 ml								



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1895	Ammonia Stock Std, 1000PPM-SS	WP115086	10/08/2025	04/08/2026	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych 10/08/2025
<u>FROM</u>	3.81900gram of W3195 + 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>
1211	11 N sulfuric acid	WP115089	10/08/2025	04/08/2026	Rubina Mughal	None	None	Iwona Zarych 10/08/2025
<u>FROM</u> 306.00000ml of M6186 + 694.00000ml 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>
1597	0.04 N H2SO4	WP115336	10/27/2025	04/27/2026	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 10/27/2025

FROM 1.00000ml of M6186 + 999.00000ml of W3112 = Final Quantity: 1000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
126	5N sulfuric acid	WP115340	10/27/2025	04/27/2026	Rubina Mughal	None	None	Jignesh Parikh 10/27/2025

FROM 140.00000ml of M6186 + 860.00000ml of W3112 = Final Quantity: 1.000 L

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1841	Sulfuric Acid, 1N	WP115342	10/27/2025	04/27/2026	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 10/27/2025

FROM 2.80000ml of M6186 + 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>
115	Phosphate Stock Std. (50 ppm)	WP115558	11/07/2025	05/07/2026	Iwona Zarych	WETCHEM_SCALE_5 (WC SC-5)	None	Jignesh Parikh 11/10/2025

FROM 0.11000gram of W3206 + 500.00000ml of W3112 = Final Quantity: 500.000 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>
2790	Phosphate Stock std, 50PPM-SS	WP115559	11/07/2025	05/07/2026	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh
<u>FROM</u> 0.11000gram of W3202 + 500.00000ml of W3112 = Final Quantity: 500.000 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>
1322	Ammonia Intermediate Std, 50PPM	WP115588	11/10/2025	12/10/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Jignesh Parikh
<u>FROM</u>		95.00000ml of W3112 + 5.00000ml of WP115085 = 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>
1639	Ammonia Intermediate Std-Second source, 50PPM	WP115589	11/10/2025	12/10/2025	Rubina Mughal	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 11/11/2025

FROM 95.00000ml of W3112 + 5.00000ml of WP115086 = 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>
648	Ammonium molybdate solution	WP115793	11/21/2025	02/11/2026	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 11/21/2025

FROM 20.00000gram of W2664 + 480.00000ml of W3112 = Final Quantity: 500.000 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>
588	Potassium Antimonyl Tartrate	WP115794	11/21/2025	05/21/2026	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh 11/21/2025
<u>FROM</u>	1.37150gram of W2306 + 500.00000ml of W3112 = Final Quantity: 500.000 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	WP115821	11/25/2025	12/25/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 11/25/2025
<u>FROM</u> 0.05000gram of W2666 + 99.95000ml 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>
127	BOD Dilution fluid	WP115912	12/04/2025	12/05/2025	Rubina Mughal	None	None	Jignesh Parikh
								12/04/2025

FROM 18.00000L of W3112 + 3.00000PILLOW of W3253 = 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	WP115913	12/04/2025	12/05/2025	Rubina Mughal	WETCHEM_SCALE_7 (WC SC-6)	None	Jignesh Parikh
								12/04/2025

FROM 0.15000gram of W2653 + 0.15000gram of W2654 + 1000.00000ml 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>
128	polyseed seed control	WP115914	12/04/2025	12/05/2025	Rubina Mughal	None	None	Jignesh Parikh
								12/04/2025

FROM 1.00000PILLOW of W3252 + 300.00000ml of WP115912 = Final Quantity: 300.000 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)	WP115961	12/05/2025	12/06/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3	Iwona Zarych
							(WC)	12/05/2025

FROM 48.00000ml of W3112 + 2.00000ml of WP115588 = 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)	WP115962	12/05/2025	12/06/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		49.00000ml of W3112 + 1.00000ml of WP115588 = 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)	WP115963	12/05/2025	12/06/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		(WC)						
49.00000ml of W3112 + 1.00000ml of WP115589 = 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>
122	calibration std. 0 ppm	WP115964	12/05/2025	12/12/2025	Iwona Zarych	None	None	Jignesh Parikh
								12/05/2025

FROM 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>
121	calibration std. phosphate 0.05 ppm	WP115965	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3	Jignesh Parikh
							(WC)	12/05/2025

FROM 99.90000ml of W3112 + 0.10000ml of WP115558 = 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>
120	calibration std. phosphate 0.1 ppm	WP115966	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 99.80000ml of W3112 + 0.20000ml of WP115558 = 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>
119	calibration std. phosphate 0.3 ppm	WP115967	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 99.40000ml of W3112 + 0.60000ml of WP115558 = 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>
118	calibration std. phosphate 0.5 ppm	WP115968	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 99.00000ml of W3112 + 1.00000ml of WP115558 = 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>
117	calibration std. phosphate 1 ppm	WP115969	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025
FROM 98.00000ml of W3112 + 2.00000ml of WP115558 = 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>
124	phosphate CCV std.	WP115970	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3	Jignesh Parikh
(WC) FROM 99.00000ml of W3112 + 1.00000ml of WP115558 = 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>
3805	Phosphate ICV-LCS Std	WP115971	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 12/05/2025
<u>FROM</u> 99.00000ml of W3112 + 1.00000ml of WP115559 = 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>
4212	Phosphate RL CHECK	WP115972	12/05/2025	12/12/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 12/05/2025

FROM 99.80000ml of W3112 + 0.20000ml of WP115558 = 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>
590	Ascorbic Acid	WP115973	12/05/2025	12/06/2025	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 12/05/2025

FROM 0.52800gram of W3243 + 30.00000ml of W3112 = Final Quantity: 30.000 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>
658	Combined reagent	WP115974	12/05/2025	12/06/2025	Iwona Zarych	None	Glass Pipette-A	Jignesh Parikh 12/05/2025

FROM 15.00000ml of WP115793 + 30.00000ml of WP115973 + 5.00000ml of WP115794 + 50.00000ml of WP115340 = 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>
1213	Phenolphthalein indicator	WP115975	12/05/2025	06/05/2026	Iwona Zarych	None	None	Jignesh Parikh 12/05/2025

FROM 50.00000ml of W3112 + 50.00000ml of W3218 = Final Quantity: 100.000 ml

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	417203	07/28/2026	07/28/2025 / RUPESH	01/29/2025 / Rajesh	E3875

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)	24H1462005	05/24/2027	09/16/2025 / Evelyn	09/04/2025 / Riteshkumar	E3972

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)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

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	07/12/2026	08/13/2025 / Sagar	08/06/2025 / Sagar	M6186

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	A1561-500GM / POTASSIUM ANTIMONY TARTRATE TRIHYDRATE, 500G	2GH0057	12/11/2027	12/11/2017 / apatel	12/11/2017 / apatel	W2306

CHEMICAL RECEIPT LOG BOOK

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.	P1060-10 / PHENOL, ACS, 500G	2HD0179	01/27/2030	01/27/2020 / apatel	01/27/2020 / apatel	W2663

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J07716-1 / Ammonium Molybdate 500G	0000234410	02/11/2026	02/10/2020 / AMANDEEP	01/31/2020 / apatel	W2664

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.	A12244 / Stearic acid, 98%, 100 g	U20E006	04/02/2026	04/02/2021 / apatel	04/02/2021 / apatel	W2817

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	H223-57 / Hexadecane, 99.0%	0000266903	05/04/2027	09/07/2021 / apatel	08/26/2021 / apatel	W2871

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	H223-57 / Hexadecane, 99.0%	SHBP8192	02/27/2028	02/27/2023 / lwona	02/27/2023 / lwona	W3009

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	BDH0214-500G / Ammonium Persulfate Crystal, 500g	MKCR9319	06/30/2028	03/05/2024 / lwona	06/06/2023 / lwona	W3035

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	A12244 / Stearic acid, 98%, 100 g	U23E020	02/26/2029	02/26/2024 / lwona	02/26/2024 / lwona	W3082

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

CHEMICAL RECEIPT LOG BOOK

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 / Iwona	05/23/2024 / Iwona	W3109

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

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3568-1 / Sodium Borate, 500 gms	BCCL9613	05/31/2029	04/16/2025 / lwona	04/16/2025 / lwona	W3201

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3246-1 / POTAS PHOSPHATE, MONO, CRY, ACS, 500G	MKCW6723	10/31/2028	04/16/2025 / lwona	04/16/2025 / lwona	W3202

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3246-1 / POTAS PHOSPHATE, MONO, CRY, ACS, 500G	MKCX1379	01/31/2029	04/29/2025 / lwona	04/29/2025 / lwona	W3206

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC16721-3 / Isopropanol, 99%	25C1161072	03/04/2029	06/26/2025 / Iwona	06/26/2025 / Iwona	W3218

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	2506M51	12/31/2025	07/02/2025 / Iwona	07/02/2025 / Iwona	W3222

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)	25C0362006	04/30/2026	09/15/2025 / JIGNESH	09/12/2025 / JIGNESH	W3240

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	10BDH15251	04/30/2029	10/02/2025 / Iwona	10/02/2025 / Iwona	W3241

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J0938-7 / Ascorbic Acid, 500 gms	MKCX1143	01/31/2028	10/03/2025 / Iwona	10/03/2025 / Iwona	W3243

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	136742-80 / POLYSEED	072505	05/31/2027	10/31/2025 / Iwona	10/31/2025 / Iwona	W3252

CHEMICAL RECEIPT LOG BOOK

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	A5219	08/31/2030	11/19/2025 / lwona	11/19/2025 / lwona	W3253



CERTIFICATE OF ANALYSIS

Printed: 12/8/2017

Page 1 of 1

Customer No : 30017
Order Number : 3008126
Catalog : A1561

Customer : PCI SCIENTIFIC
Delivery # : 58495347
Potassium Antimony Tartrate Trihydrate,
Reagent, ACS

Customer PO : 6035343
Lot : 2GH0057

Chemical Formula : $C_8H_4K_2O_{12}Sb_2 \cdot 3H_2O$
CAS# : 28300-74-5

Formula Weight : 667.87

W2306
received
12/11/17
AB

Test

Limit
Min. Max.

Results

ASSAY ($C_8H_4K_2O_{12}Sb_2 \cdot 3HO$)	99.0 - 103.0 %	101.0 %
TITRATABLE ACID OR BASE	-- 0.020 meq/g	<0.020 meq/g
LOSS ON DRYING	-- 2.7 %	<2.7 %
ARSENIC (As)	-- 0.015 %	<0.015 %
APPEARANCE		WHITE POWDER
DATE OF MANUFACTURE		29-DEC-2015

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

Read and understand label and MSDS/SDS before handling any chemical. All Spectrum's chemicals are for manufacturing, processing, repacking or research purposes by experienced personnel only. The customer must ensure to provide its users adequate hazardous material training and appropriate protective gears before handling our chemicals.

Certificate of Analysis Results Certified By:

Ammonium Molybdate, 4-Hydrate, Crystal
BAKER ANALYZED® A.C.S. Reagent

(ammonium heptamolybdate, tetrahydrate)



Material No.: 0716-01
Batch No.: 0000234410
Manufactured Date: 2019/02/13
Retest Date: 2026/02/11
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay (as MoO ₃)	81.0 – 83.0 %	81.4
ACS – Insoluble Matter	<= 0.005 %	< 0.001
Chloride (Cl)	<= 0.002 %	< 0.002
Nitrate (NO ₃)	Passes Test	PT
Arsenate, Phosphate and Silicate (as SiO ₂)	<= 0.001 %	< 0.001
ACS – Phosphate (PO ₄)	<= 5 ppm	< 5
Sulfate (SO ₄)	<= 0.02 %	< 0.02
Heavy Metals (as Pb)	<= 0.001 %	< 0.001
Magnesium (Mg)	<= 0.005 %	< 0.001
Potassium (K)	<= 0.01 %	< 0.01
Sodium (Na)	<= 0.01 %	<0.001

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

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

James Ethier
Jamie Ethier
Vice President Global Quality

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



Certificate Of Analysis

Item Number	P1060	Lot Number	2HD0179
Item	Phenol, Loose Crystal, Reagent, ACS		
CAS Number	108-95-2		
Molecular Formula	C ₆ H ₆ O	Molecular Weight	94.11

Test	Specification		Result
	min	max	
ASSAY (C ₆ H ₅ OH)	99.0 %		100.02 %
FREEZING POINT (DRY)	40.5 C		40.5°C
CLARITY OF SOLUTION	TO PASS TEST		PASSES TEST
RESIDUE AFTER EVAPORATION		0.05 %	<0.05 %
WATER		0.5 %	0.0087 %
DATE OF MANUFACTURE			06-MAR-2018

Spectrum Chemical Mfg Corp
755 Jersey Avenue
New Brunswick 08901 NJ



Certificate Of Analysis Results Certified by

Ibad Tirmizi
Director of Quality
Spectrum Chemical Mfg. Corp.

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.

Hexadecane, 99.0%



Material No.: H223-57
Batch No.: 0000266903
Manufactured Date: 2020/05/05
Retest Date: 2027/05/04
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay ($\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$) (by GC)	$\geq 99.0 \%$	99.3
Infrared Spectrum	Passes Test	PT

For Laboratory, Research or Manufacturing Use

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


Jamie Ethier
Vice President Global Quality

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

W2666 Recived on 02/10/2020 by AP

Product No.: 87683

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

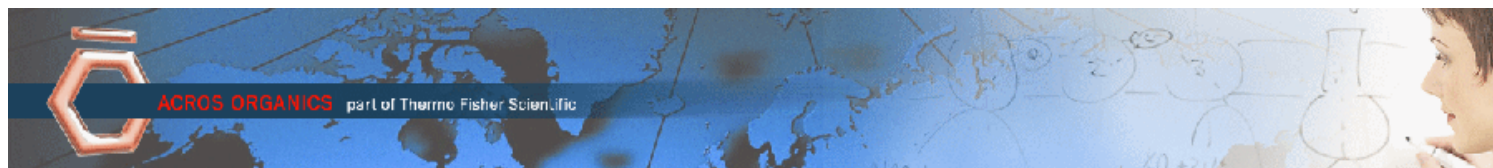
Lot No.: W12F013

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

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)

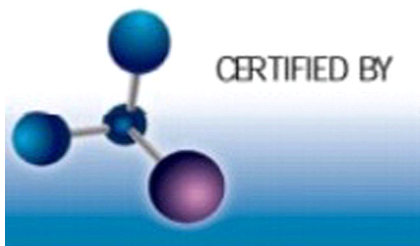
Certificate of Analysis

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

Origin Comment	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 (SO ₄)	=<300 ppm	=<200 ppm
Ammonium (NH ₄)	=<200 ppm	=<200 ppm
Arsenic oxide (As ₂ O ₃)	=<1 ppm	=<1 ppm



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

W2817

REC. 04/02/2021

Product Name: Stearic acid, 98%, Thermo Scientific Chemicals
Catalog Number: A12244.14

CAS Number: 57-11-4
Molecular Formula: C₁₈H₃₆O₂
Molecular Weight: 284.48
InChI Key: QIQXTHQIDYTRH-UHFFFAOYSA-N
SMILES: CCCCCCCCCCCCCCCC(O)=O
Synonym: stearic acid acide stearique hydrofol acid 1855 hydrofol acid 1655 industrene 5016
stearic acid, ion(1-) (8Cl) glycon TP glycon DP acidum stearinicum hydrofol acid 150

Product Specification

Appearance (Color): White
Form: Crystals or powder or crystalline powder or flakes or waxy solid
Assay (Silylated GC): ≥97.5%
Melting Point (clear melt): 67.0-74.0°C

Date Of Print: 11/30/2023

Product Specifications are subject to amendment and may change over time. Data contained is accurate as of the date printed.

W3009
rec. 2/27/2023 12

Product Name:

Hexadecane - ReagentPlus®, 99%

Certificate of Analysis

Product Number:

H6703

Batch Number:

SHBP8192

 $\text{CH}_3(\text{CH}_2)_{14}\text{CH}_3$

Brand:

SIAL

CAS Number:

544-76-3

MDL Number:

MFCD00008998

Formula:

C16H34

Formula Weight:

226.44 g/mol

Quality Release Date:

04 AUG 2022

Test	Specification	Result
Appearance (Color)	Colorless or White	Colorless
Appearance (Form)	Liquid or Solid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Refractive index at 20 ° C	1.432 - 1.436	1.435
Purity (GC)	≥ 98.5 %	99.3 %
Color Test	≤ 20 APHA	< 5 APHA


Larry Coers, Director

Quality Control

Sheboygan Falls, WI US

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



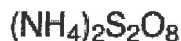
W 3035
rec. 6/6/23 12

Product Name:

Certificate of Analysis

Ammonium persulfate - ACS reagent, $\geq 98.0\%$

Product Number: 248614
Batch Number: MKCR9319
Brand: SIGALD
CAS Number: 7727-54-0
MDL Number: MFCD00003390
Formula Weight: 228.20 g/mol
Quality Release Date: 13 OCT 2022



Test	Specification	Result
Appearance (Color)	White to Off White	White
Appearance (Form)	Powder or Crystals or Granules or Chunks	Crystals
ICP Major Analysis	Confirmed	Confirmed
Confirms Sulfur Component		
Titration by KMNO ₄	$\geq 98.0 \%$	100.0 %
Residue on ignition (Ash)	$\leq 0.05 \%$	< 0.05 %
Insoluble Matter	$\leq 0.005 \%$	0.002 %
c = 10 %; In Water		
Chloride and Chlorate (as Cl)	$\leq 0.001 \%$	< 0.001 %
Iron (Fe)	$\leq 0.001 \%$	< 0.001 %
Heavy Metal	$\leq 0.005 \%$	< 0.001 %
as Lead		
Manganese (Mn)	$\leq 0.5 \text{ ppm}$	< 0.1 ppm
Titrateable Acid (meq/g)	≤ 0.04	< 0.04
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. 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

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.



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CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER:	6399	RELEASE DATE:	MAY/23/2024
LOT NUMBER :	417203		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.8 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.2
Insoluble matter	Max. 0.01%	0.001 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO ₄)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.001 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.001 %
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%	0.2 %
Retained on US Standard No. 60 sieve	Min. 94%	96.2 %
Through US Standard No. 60 sieve	Max. 5%	3.5 %
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.

RE-02-01, Ed. 3

E 3875

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

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

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3972

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



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

 **avantorsm**



M6151

R → 11/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO ₃)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH ₄)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

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

 **avantorsm**



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

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



Material No.: 9530-33
Batch No.: 22G2862015

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

For Laboratory, Research, or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

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

A handwritten signature in cursive script that reads 'Jamie Ethier'.
Jamie Ethier
Vice President Global Quality

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

avantor™



M6186

Reciev Date :- 08/06/25

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

>>> Continued on page 2 >>>

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



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

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

For Laboratory, Research, or Manufacturing Use

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

A handwritten signature in cursive script that reads 'Jamie Ethier'.
Jamie Ethier
Vice President Global Quality

Certificate of analysis

W3082 Received on 2/26/2026 by IZ

Product No.: A12244
Product: Stearic acid, 98%
Lot No.: U23E020

Appearance White flakes
Assay 98.7 %

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ThermoFisher
S C I E N T I F I C



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

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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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Sodium Hydroxide (Pellets)

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

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

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025
Storage: Room Temperature

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

Internal ID #: 710

Signature	Additional Information
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	Analysis may have been rounded to significant digits in specification limits. Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

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

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

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

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

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

Additional Information

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

Product meets analytical specifications of the grades listed.

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

TEST	SPECIFICATION		RESULT
	MIN	MAX	
ASSAY (DRIED BASIS)	99.0	101.0 %	99.5 %
pH OF A 5% SOLUTION @ 25°C	4.0	6.0	4.6
LOSS ON DRYING	8.7	11.4 %	8.90 %
CALCIUM (Ca)	NO PRECIPITATE IS FORMED		NO PRECIPITATE IS FORMED
ELEMENTAL IMPURITIES:			.
NICKEL (Ni)	AS REPORTED		<0.3 ppm
CHROMIUM (Cr)	AS REPORTED		<0.3 ppm
NITRILOTRIACETIC ACID[n[(HOCOCH ₂) ₃ 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.



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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Certificate of Analysis



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

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

Internal ID #: 710

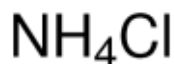
Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA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

W3196 Received on 03/19/2025 by IZ

Certificate of Analysis

Product Name:

Ammonium chloride - ACS reagent, ≥99.5%



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

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



Larry Coers, Director

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



Certificate of Analysis

Product Number: 213330
Batch Number: MKCV1009

Quality Control
Milwaukee, WI US

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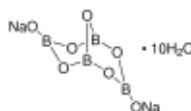
W3201 Received on 4/16/25 by IZ

Certificate of Analysis

Product Name:

Sodium tetraborate decahydrate - ACS reagent, ≥99.5%

Product Number: S9640
Batch Number: BCCL9613
Brand: SIGALD
CAS Number: 1303-96-4
Formula: B₄Na₂O₇ · 10H₂O
Formula Weight: 381,37 g/mol
Quality Release Date: 05 JUL 2024
Recommended Retest Date: MAY 2029



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Powder
Titration with NaOH	99.5 - 105.0 %	100.7 %
pH	9.15 - 9.20	9.20
0.01 m Solution at 25 Deg C		
Meets ACS Requirements	Corresponds to Requirements	Corresponds
ACS Specifications	Corresponds to Requirements	Corresponds
Insoluble Matter ≤ 0.005% / Heavy		
Metals (As Pb) ≤ 0.001%		
Calcium (Ca)	≤ 50 mg/kg	< 50 mg/kg
Iron (Fe)	≤ 5 mg/kg	< 5 mg/kg
Total Sulfur	≤ 50 mg/kg	< 50 mg/kg
as SO ₄ (ICP)		
Chloride (Cl)	≤ 10 mg/kg	< 10 mg/kg
Phosphate (PO ₄)	≤ 10 mg/kg	< 10 mg/kg

Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland CH

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



W3202 Received on 4/16/25 by IZ

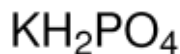
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Potassium phosphate monobasic - ACS reagent, ≥99.0%

Product Number: P0662
Batch Number: MKCW6723
Brand: SIGALD
CAS Number: 7778-77-0
MDL Number: MFCD00011401
Formula: H₂KO₄P
Formula Weight: 136.09 g/mol
Quality Release Date: 16 OCT 2024
Recommended Retest Date: OCT 2028



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Crystals
Assay	≥ 99.0 %	99.8 %
Insoluble Matter	≤ 0.01 %	< 0.01 %
Loss on Drying	≤ 0.2 %	< 0.1 %
At 105°C		
pH	4.1 - 4.5	4.5
(c = 5%, 25 deg C)		
Chloride Content	≤ 0.001 %	< 0.001 %
Sulfate (SO ₄)	≤ 0.003 %	< 0.003 %
Heavy Metals	≤ 0.001 %	< 0.001 %
by ICP		
Iron (Fe)	≤ 0.002 %	< 0.001 %
Sodium (Na)	≤ 0.005 %	< 0.001 %
Recommended Retest Period	-----	-----
4 Years		



Larry Coers, Director
Quality Control
Milwaukee, WI US

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

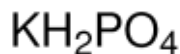


Certificate of Analysis

Product Name:

Potassium phosphate monobasic - ACS reagent, ≥99.0%

Product Number: P0662
Batch Number: MKCX1379
Brand: SIGALD
CAS Number: 7778-77-0
MDL Number: MFCD00011401
Formula: H₂KO₄P
Formula Weight: 136.09 g/mol
Quality Release Date: 27 JAN 2025
Recommended Retest Date: JAN 2029



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Crystals
Assay	≥ 99.0 %	99.9 %
Insoluble Matter	≤ 0.01 %	< 0.01 %
Loss on Drying	≤ 0.2 %	< 0.1 %
At 105°C		
pH	4.1 - 4.5	4.5
(c = 5%, 25 deg C)		
Chloride Content	≤ 0.001 %	< 0.001 %
Sulfate (SO ₄)	≤ 0.003 %	< 0.003 %
Heavy Metals	≤ 0.001 %	< 0.001 %
by ICP		
Iron (Fe)	≤ 0.002 %	< 0.001 %
Sodium (Na)	≤ 0.005 %	< 0.001 %
Recommended Retest Period	-----	-----
4 Years		



Larry Coers, Director
Quality Control
Milwaukee, WI US

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



Material	BDH1133-4LP
Material Description	Isopropyl Alcohol
Lot	25C1161072
Expires end of	2029-Mar-04
CAS Number	67-63-0
Molecular formula	(CH ₃) ₂ CHOH
Molecular mass	0
Last Quality Control	2025-Mar-24
Date of manufacture	2025-Mar-05
Made in	United States
Manufacturer Source Batch	US20TK1770

Additional information

Characteristics	Specifications	Measured values
ACS - Assay (CH ₃ CHOHCH ₃)	>= 99.5 %	100.0 %
ACS - Color (APHA)	<= 10	<5
ACS - Residue after Evaporation	<= 0.001 %	<0.001 %
ACS - Solubility in H ₂ O	Passes Test	Passes Test
ACS - Titrable Acid or Base (meq/g)	<= 0.0001	<0.0001
ACS - Water (H ₂ O)(by Karl Fischer titrn)	<= 0.2 %	<0.1 %
Appearance (Clear, colorless liquid)	Passes Test	Passes Test
Carbonyl Compounds - Acetone	<= 0.002 %	<0.001 %
Carbonyl Compounds - Propionaldehyde	<= 0.002 %	<0.001 %

Signature

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

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

Michelle Bales - Sr. Manager Quality Assurance
Avantor Performance Materials, LLC

For Professional use in Laboratory or Manufacturing. Not for use as an Active Pharmaceutical Ingredient or Food or Animal Feed. Suitability and intended use of the product remains the responsibility of the user.

VWR International LLC, Radnor Corporate Center, Building One, Suite 200, 100 Matsonford Road, Radnor, PA 19087, USA.

VWR International bv, Haasrode Research Park Zone 2020, Geldenaaksebaan 464, 3001 Leuven, Belgium

BDH1133- 25C1161072 Page 1 / 1

Certificate of Analysis

Sodium Hypochlorite Solution, 5% available Chlorine

Lot Number: 2506M51**Product Number:** 7495.5**Manufacture Date:** JUN 18, 2025**Expiration Date:** DEC 2025

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

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

Test	Specification	Result	NIST SRM#
Appearance	Colorless to greenish-yellow liquid	Passed	
Assay (vs. Sodium Thiosulfate/Starch)	4.75-5.25 % (w/w) Cl ₂	5.17 % (w/w) Cl ₂	136

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

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

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

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

Jose Pena (06/18/2025)
Operations Manager

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

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

 **avantorsTM**



W3240
JP
07/15/2025
07/15/2025

Material No.: 9262-03
Batch No.: 25C0362006
Manufactured Date: 2025-01-29
Expiration Date: 2026-04-30
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	6
ECD-Sensitive Impurities (as EthyleneDibromide) - Single Impurity Peak (ng/mL)	≤ 5	4
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	100.0 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	100 %
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Substances Darkened by H ₂ SO ₄	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: United States
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

W3243 Received on 10/3/25 by IZ

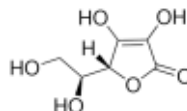
Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

L-Ascorbic acid - ACS reagent, ≥99%

Product Number: 255564
Batch Number: MKCX1143
Brand: SIAL
CAS Number: 50-81-7
MDL Number: MFCD00064328
Formula: C₆H₈O₆
Formula Weight: 176.12 g/mol
Quality Release Date: 17 JAN 2025
Recommended Retest Date: JAN 2028

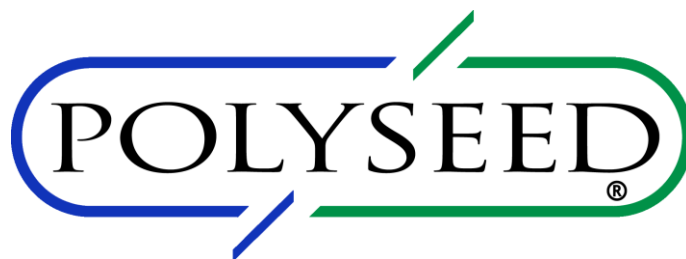


Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals or Granules or Chunks	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Optical Rotation (+); c = 10%; Water	20.5 - 21.5 deg	21.0 deg
Titration by Iodine	≥ 99.0 %	100.0 %
Residue on Ignition	≤ 0.10 %	0.02 %
Iron (Fe)	≤ 0.001 %	< 0.001 %
Heavy Metals by ICP-OES	≤ 0.002 %	0.001 %
Recommended Retest Period 3 Years	-----	-----
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. 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

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

PolySeed® • Part No. P-110 • Lot 072505 • Mfg. Date: 05/2025 • Exp. Date: 05/2027

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 4.00×10^9 cfu/g.

GLUCOSE/GLUTAMIC-ACID RESULTS:

Tested results within acceptable range 198 +/- 30.5 mg/L (167.5 - 228.5 mg/L). GGA Lot# 43100020 – Average Test Result: 203

See www.polyseed.com for details.

SEED CONTROL FACTOR:

Tested results within acceptable range 0.6 – 1.0 see 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 ensure that the Finished Product conforms to the above specifications.

Signature: _____

Quality Control Department

Date: 05/07/2025

POLYSEED.Ref.1.19

Revised Jan 25



An ISO 9001 Certified Company

P.O. Box 389
Loveland, CO 80539
(970) 669-3050

Certificate of Analysis

This is a Component of 1486266 / LOT A5219

PRODUCT: BOD Nutrient Buffer Pillows

PRODUCT NUMBER: 1486227

LOT NUMBER: A5219

MANUFACTURE DATE: 08/26/2025

DATE OF ANALYSIS: 09/15/2025

TEST	SPECIFICATIONS	RESULTS
Ammonia Concentration of a diluted pillow	0.57 to 0.79 ppm	0.581
Calcium Concentration of a diluted pillow	0.93 to 1.29 ppm	1.050
Iron Concentration of a diluted pillow	0.27 to 0.36 ppm	0.323
Magnesium Concentration of a diluted pillow	0.35 to 0.48 ppm	0.400
Phosphorus Concentration of a diluted pillow	7.6 to 10.3 ppm	8.85
pH in a 6 L of DI water	7.1 to 7.6 ph	7.20
Five Day Change in Dissolved Oxygen Concentration	-0.2 to 0.2 ppm	0.15
Sterility	To Pass	Passed

The expiration date is Aug 2030

Certified by: *Scott Als*

Analytical Service Chemist



SHIPPING DOCUMENTS

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:
COMPANY: HOLLAND MANUFACTURING
ADDRESS: 15 MAIN ST.
CITY: SUCKESUNNA STATE: NJ ZIP: 07876
ATTENTION: _____
PHONE: _____ FAX: _____

PROJECT NAME: Hum Pretreatment
PROJECT NO.: _____ LOCATION: _____
PROJECT MANAGER: TODD HOLLANDIS
e-mail: _____
PHONE: _____ FAX: _____

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

ANALYSIS

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

☐ 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.
BOD 5 TSS OTG Pb 4 TOTAL P. NH4

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES						COMMENTS				
			COMP	GRAB	DATE	TIME		E	E	C	C	C	C	← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER				
1.	Effluent	W		✓	12-25	11:30	7	✓	✓	✓	✓	✓	✓					
2.	Aeration	W		✓	12-25	11:30	1		✓									
3.	Influent	W		✓	12-25	11:30	2	✓					✓					
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

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

RELINQUISHED BY SAMPLER: 1. <u>Low full</u>	DATE/TIME: <u>12-25 12:00</u>	RECEIVED BY: <u>CL</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>2.8°C</u>
RELINQUISHED BY SAMPLER: 2. _____	DATE/TIME: _____	RECEIVED BY: _____	Comments: <u>CAB to Filter</u>
RELINQUISHED BY SAMPLER: 3. _____	DATE/TIME: _____	RECEIVED BY: _____	_____

Page _____ of _____ CLIENT: ☐ Hand Delivered ☐ Other _____ Shipment Complete ☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312